

The Aussie Mag
for Amstrad owners

THE AMSTRAD USER

**NEW
Thunderbirds
COMPETITION!**

See page 12
for details

Issue No. 56 \$4.25

September 1989



- ***New Thunderbirds Competition + CPC Serial Interfaces
Latest games reviews + Adventure type-in part 1***
- ***LocoScript layouts explained + More CP/M+ to learn +
Programming in C + Investigating fill algorithms***
- ***Amstrad PC20 reviewed + New Masterfile PC version 3***

FOR THE NOVICE & EXPERIENCED USER

"Skweek" and ye shall find!!!

- "The hottest game for '89!"

Hallelujah!!

In the beginning there was Chess, and it was good, but not that good. And Chess flourished, became popular and *begat* Checkers, which *begat* logical thought, which *begat* electronics, which *begat* computers.

Then there was the computer game, and it was better; but not by much. The computer game attracted many to evil ways of "Fun", but it soon lost its appeal, and the many strayed.

Then LORICIELS *begat* "SKWEEK", and it was fantastic! The many returned and increased manyfold. There was great enjoyment in the land, and many even forgot about *begatting* anything else.

The beginning, the end and the middle was "SKWEEK", the constant **FUN** and the eternal frustration. **AMEN!**

MAX: 1:12:4

And lo! "SKWEEK" could *begot* at Maxwells Office Equipment (VIC), Grace Bros, Myer, Harvey Norman, Computer Spot, Steve's (ACT), Westend, and ye multitude of other retailers.



Every now and then, there appears a game that has the lot; Graphics, Music, Sound FX, Action, Strategy, Puzzles and above all else, that indefinable "something" that makes you come back time after time.

"SKWEEK" is that game for 1989.

It's **FAST, FUN, FRANTIC** action right from the start. Simple to follow gameplay makes it instantly enjoyable and incredibly addictive. **ENJOY!**

"SKWEEK" is available on AMIGA and PC (512k minimum, Graphics Card required) also on Atari ST & Amstrad CPC.

N.S.W. : Pactronics Pty Ltd, 33-35 Alleyne Street, Chatswood. (02) 407 0261

VICTORIA : Pactronics Pty Ltd, 51-55 Johnston Street, Fitzroy. (03) 419 4644

QUEENSLAND : Pactronics Pty Ltd, 12 Stratton St, Newstead, 4006. (07) 854 1982

SOUTH AUSTRALIA: Baringa Pty Ltd, (08) 271 1066 ext. 6132

WESTERN AUSTRALIA: Pactronics, unit 13, 133 High Rd Willetton 6155. (09) 354 1122

NEW ZEALAND: Micro Dealer NZ Ltd, PO Box 23-678, Papatoetoe, Auckland. (09) 274 9300

Pactronics

Letters - your views, advice and comments 2

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

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

Skweek 8

3-D Pool 9

Silkworm 10

Thunderbirds 11

NEW COMPETITION! See page 12 for details...

The Games, Summer Edition - Epyx are back with another new CPC title. Vic Renfrew decides it's fate 14

Serial Interfaces - back with more comms-talk for CPC users, The Hermit looks at some serial interfaces 16

CPC Educational Software - based in South Australia, Satchel Software are making an impression in schools .. 18

CPC 10-liners - due to popular demand, here are two short but interesting type-ins to tickle your fingers! 20

CP/M+ Tutorial - Mike Turner continues his series on CP/M+ with emphasis this month on system management 22

Small C Interpreter - with the last article in his series on programming in "C", here's Roger Williams 26

Fill Algorithms - what are fill algorithms?! Gary Koh knows and has a new series to tell you all about them 30

LocoScript Layouts - to waste lots of time and miss out on the chance to increase your efficiency, don't read this 34

Amstrad PC20 - making it's mark in the PC market, even as you read this, is Amstrad's new budget IBM-compatible. Joseph Elkhorne takes the PC20 out for a test-run 38

Masterfile PC version 3 - Shane Kelly explains the latest developments at Campbell Systems in the UK 42

PC Accounts - your PC can quite easily manage a considerable payroll system, as long as the software is capable .. 44

Lotus Agenda - what's a good book if the subject matter isn't up to scratch, asks Shane Kelly 46

Compatibles Corner - Chris Collins spills the beans on his love affair with 4DOS, and that's for starters 48

Adventurer's Attic - Philip Riley talks Artificial Intelligence and has a little time for a few Qs and As too! 50

Fantastic Adventure - it's an adventure just typing Barrie Eaton's new three-part whopper in! Here's part one 52

Classified Ads - and the official order form 55

Public Domain Software - 30 discs full of PD software for CPC and PCW users 56

The Amstrad User Mail Order Service - EIGHT pages with over 1000 lines of Software, Peripherals, Ribbons, Discs and Books for the Amstrad range of computers 57

THE AMSTRAD USER

Issue No. 56 - September 1989

For Tape Subscribers, CPC programs appearing in this month's magazine can be found at the following approximate positions:

Side 1: FILLDEMO - 5 CLEVER - 22 CECIL - 37

Side 2: BLANK

ADVERTISER'S INDEX

All Stamps and Services 3

Pactronics IFC, 47

All enquiries and contacts concerning this Publication should be made in the first instance by writing to The Amstrad User, 641 High Street Road, Mount Waverley, Victoria 3149, Australia. Urgent matters can be phoned through on (03) 233 9661.

The Amstrad User is normally published on the first working day of each month. Reprinting of articles published in The Amstrad User is strictly forbidden without written permission. Copyright 1989 by Strategy Publications. The single copy price of \$4.25 is the recommended retail price only.

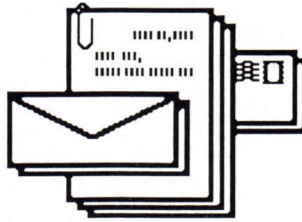
From time to time, some articles appearing in The Amstrad User will be reproductions from UK publications Amstrad Action, 8000 Plus and CPC Computing (formerly Computing with the Amstrad). The first two are printed under an agreement between Strategy Publications and Future Publishing Ltd, Bath, and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

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

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

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

LETTERS TO THE EDITOR



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



I am using an Amstrad Word Processor PCW 9512 purchased in February this year - Serial No 562 860 2899 with LocoScript 2 v 2.11.

I am writing a book of my experiences as a fighter pilot in the RAAF and as a POW in Italy and as an Evader in Switzerland after escaping from Italy. Occasionally, I will be using German and French words and wish to use the accents common in those languages.

Accordingly, I have purchased two extra printwheels for the 9512 Printer which I ordered through Reckon Software Publishers and Distributors Pty. Ltd., Rose Bay NSW. I requested wheels for Swiss-French and Swiss-German and these have now been received: "SWISS-FRENCH RO41805 THESIS PS" and "SWITZERLAND RO39805 THESIS PS" respectively. Assuming that the typesyles of these printwheels would be acceptable, I was intending to print all of the manuscript with one or other of them - thus being able to print the necessary accents without changing the printwheel.

As a trial, I have used the two printwheels - changing the LocoScript Character Style to Thesis 10 and Character Set to Swiss-French and the printer defaults to Thesis 10 and Swiss-French as indicated in Session 23 of the PCW 9512 User Guide. For the trial document, I

used the list of accents and how to obtain them on page 324 of the User Guide. These are set out in Document 044, created and printed in England Prestige Pica 10 (see attachment 044 (1)). Attachments 044 (2) - 044 (5) show the same document printed with various wheels and settings.

The same document created with the Swiss-French settings and printed with the Swiss-French printwheel as Document 045 - see attachment 045 (1) - came out as JUNK with no accents! As a check, I have printed Document 045 using other printwheels and settings - the results being shown in attachments 045(2) - 045(6).

Will you please advise me if I am using the wrong printwheels or if I need to purchase a Printwheels Disc or a Keyboards Disc as listed on page 61 of the May issue of the Amstrad User.

Frederic Eggleston, Vacluse, NSW

We have consulted Locomotive in England concerning your problem and they have advised that to use any PCW9512 printwheel you need the correct tables loaded. PCW9512.PRI contains the tables for English wheels (but in Germany it contains tables for German wheels, in France....etc). You can use different wheels by loading the correct ".#"files. For "Swiss-French" wheels you need ".#SF", for "Switzerland" wheels you need ".#CD". English

9512s are shipped with PCW9512.#SF as standard, but to use the RO39805 it will be necessary to purchase the printwheels disc to get the PCW9512.#CD file.

The problem with printing 'junk' has nothing to do with any of the above and will occur even with English Thesis PS wheels. The fixed pitch and PS wheels have completely different orderings so it is vital to tell LocoScript which sort of wheel you are using. You do this by changing the Pitch in the Character Style Menu to PS.

The keyboard disc is a 'red herring'. All systems, whatever their nationality are capable of inputting all of LocoScript's many characters. The keyboard disc contains pre-set keyboards for all national variants (so if you are used to AZERTY, QWERTY or QWERTZ you can have that keyboard, no matter what it says on the actual keys). It also contains LOCOKEY.COM which is a program which lets you customise your keyboard wholesale (to Dvorak maybe) or to add combination characters (like é) which would otherwise require two keystrokes of your own national keyboard.

The price of a PCW9512 printwheel disc is currently \$59.95. If you would like to reserve a copy from the next shipment, we would suggest that you contact the Mail Order Department of The Amstrad User as soon as possible.



The type-in "BOMB DISPOSAL" by Amanda French (Games Gallimaufry, #47 Dec. '88) was praiseworthy, however there are a few adjustments which should be made.

Firstly Amanda seems to have been over-zealous with collision detection in lines 240-290, so to save weary fingers lines 270-290 should be REMmed out or ignored completely.

Secondly, the clearing of the screen and the array sc%(x,y) are done in a very primitive and time consuming way, resulting in a long wait between screens. The remedy below gives an instant transfer to the next screen.

So here are the minimum

changes to turn what is otherwise a good game into an even better one.

```
50 ERASE sc%:DIM sc%(39,17)
'remove sc% then re-establish it
60 LOCATE 40,17:PRINT CHR$(19);
'clear screen to here
270 ' REM these lines
280 ' or remove/ignore
290 ' them completely.
```

The control code, **CHR\$(19)**, clears the screen from the top left of the screen (or window) to the cursor position. The **ERASE <variable>** command operates only on variables which already exist, so I could not put it before the **DIM sc%(39,17)** command in line 20.

BOMB DISPOSAL is a well structured program. Keep it up Amanda.
Ben Finney, Gawler Belt, SA



Help! I own a PCW 9512 with a Daisy Wheel printer. Recently I bought the desktop publishing

system - Stop Press from AMS with AMX Mk III Mouse. Then I was told to run the program I needed a Dot Matrix printer plus suitable Interface which I purchased. I see I can use a Digitiser which enables me to copy pictures from personal videos or a video camera. This seems really limited and as I was perusing through the mail order catalogue, I saw a system called **SCANNER - Master Pack** which enables the user to copy photos and artwork. This would be ideal for me but the big question is - is this compatible with my other gear and if not, is there a similar system that is?

Here's Hoping, Koo-Wee-Rup, Vic

In a word, no! You cannot use the Master Pack scanner on your PCW9512. The scanning device is only designed to fit onto the print-head of the 8256/8512 dot-matrix printers, and on no others. To our knowledge, there is no other suitable scanner available in Australia that would suit your needs.



As a former subscriber who has returned to Australia after an absence of almost two years, I quickly sought your magazine again.

Being keen to obtain reviews of software and equipment which had appeared since my departure, I will want to purchase some back issues - but not all!

Amstrad PCW Magazine (UK), the last issue of which I have seen, had adopted the commendable habit of including a "Reviewed So Far" page in each issue. It is a practice which would be valuable not only to those in my situation, but also to those who are not "hoarders" or whose initial decision to subscribe might be stimulated by their favourable assessment of your previous work on packages or equipment with which they are familiar.

Perhaps you would consider a similar listing in your magazine?

Gregory Hasking, Cabramatta, NSW

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

Point taken, but we do publish an index once a year. The index for issues 37 to 48 appears in Issue 50 (March 1989) and the index for Issues 1 to 36 appears in Issue 39 (April 1988).



I have had an Amstrad CPC664 for about four years and it has worked very well for that time.

But lately when I run a program the disc drive makes a loud grinding noise. If I use my discs on the computer when the disc drive is as it is, will my discs be ruined? Could you please tell me what could be wrong with my disc drive and how much it would cost to repair.

Also, would you know what is wrong with either my printer or screen dump. When I go to print a screen the printer prints a line then line feeds on for a line and prints another line, until the picture is finished. My printer is a Brother M-1109. I have tried typing in various linefeed commands that are in my Brother manual but they don't seem to make a difference to the screen-dumping.

My last request is, do you have a cheat mode for The Vindicator (I can't get past the first level)? I would greatly appreciate any help you could give me.

Andrew Ford, Nambucca Heads, NSW

1. We can't provide technical advice from this distance. We suggest you contact your local Amstrad dealer who should be able to tell you the name and address of your nearest Amstrad Service Centre.

2. The printer problem appears to be the perennial 'pin -14' question. However, you don't say if the problem occurs on all your printing jobs. If it does you will need to knock out pin 14 in your printer cable. If the double spacing only occurs when screen dumping you'll need to look at the program.

3. Read Richard Jacquemin's letter!



I have recently been planning on an adventure game of my own, but the problem is that I want to

have MODE 1 graphics with MODE 2 text. I ask you this because I don't want to send to England after my friend sent there for the advanced manual (SOFT 968) and got a letter back stating that his book wouldn't be sent to him! Your help will be much appreciated by me, keep up the good work with your fantastic mag!

B. Hayes, Wairarapa, N.Z.

We are not sure what you want. Is it a method of using MODE 1 and 2 at the same time? Do you need a copy of SOFT 968? Do you want us to pay for a SOFT 968? Unfortunately, we cannot help you with any of these except to say that the registers of the CRT chip have to be addressed directly using the OUT command and SOFT 968 is no longer published.



Recently when I went to my computer shop, I was told that the Amstrad 464 had stopped being made, do you know anything about it? Also, if it stops being made what will happen to all the software on tape, will we still be able to get it?

In reply to Craig Kooistra's letter about the Vindicator passwords:

Level 2 : OPPENHEIMER

Level 3: ENOLAGAY

I hope this helps.

What about a pen-pal column; if any-one is interested in a pen-pal write to:

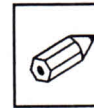
Richard Jacquemin
177 Railway Avenue
Kelmescott W.A. 6111.

I have a CPC464 with disc drive, memory expansion; I'm interested in adventures and lots more. I will answer all letters, male or female.

Richard Jacquemin, Kelmescott W.A.

Although there have, for the last three years, been rumours floating around that Amstrad are about to end production of the CPC464, these have been unfounded to date. We believe that Amstrad (Australia) have decided - for reasons best known to them - to no longer import the 464, although it is currently still on their price list. Production and sales of 464 software

remain healthy in Europe, an indication that we should continue to see a steady flow of new titles "Down Under."



I am seriously considering moving "up in the world" from my CPC to a new PC. My problem is that there are a lot of Masterfile III files that I would really like to be able to continue using on the PC in Masterfile PC. Are the two programs able to use the same files? Or is there some means of doing a file-transfer? Please help me, as I could really use all those files.

Irwin Hume, Coogee, NSW

The actual data that makes up the files on both versions of Masterfile is compatible when translated into the ASCII character set, so to transfer the data you need to export it into an ASCII file (this is well documented in your manual). Unfortunately, the control characters are not the same in both Masterfiles, so the format is lost.

Once this is done, all you need is a modem or serial cable to connect your CPC to a PC, both machines loaded with communications software that supports file transfer. Then just follow the instructions, noting that the baud rate, number of stop bits and parity must be the same on both machines.

PEN PALS

Bending again to popular demand, here's a new section for pen pals! You can join this list by writing to "Pen Pals" care of The Amstrad User.

Richard Jacquemin (CPC464)
177 Railway Avenue
Kelmescott WA 6111

Chris Maloney (CPC464 & PC)
20 Helena Court
Rye Vic 3941

Stephen Phillipson (CPC)
16 Julia Drive
Bunbury WA 6230

Corey Powell (CPC464)
24 Campbell Street
Shepparton Vic 3630

Paul Tacey (CPCs)
RMB 5134
Shepparton Vic 3631

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

"FLIPPER is an invaluable tool, and really is like having an extra PCW."

Rob Ainsley, *New Computer Express*

"I am completely sold on it"

Paul Hendy, *Your Amstrad PCW*

"FLIPPER is one of the most impressive utilities I've seen for the PCW"

John Minson, *Computer Shopper*

FLIPPER could do some pretty surprising things. It could split you PCW in two, letting you run LocoScript 2 in one half and a CP/M program in the other. Or it could let you load two CP/M programs at once if you preferred, one in each half. It could flip you from one half to the

other in under three seconds, any time you wanted. And it wouldn't lose your place.

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

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

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

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

THE AMSTRAD USER
641 High Street Road
Mount Waverley
Victoria 3149

Tel: (03) 233 9661

NEWS BREAK

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

YPA LAUNCHES MINDSCAPE INTERNATIONAL

A new name has appeared in the Australian computer entertainment industry. Mindscape International, formerly YPA Holdings, completed a four state campaign recently, launching its new name and a range of new products.



Mindscape International is an American based company with objectives to supply computer software for entertainment, produc-

tivity and educational uses throughout the country. However, it took an Australian, David O'Connor from Canberra, to earn himself and Mindscape the US award for the "Best 20th century computer war game" with a game called **Fire Brigade**.

There are a number of titles either released now or to be released over the next few months in either CPC or PC formats or both. From the hit film "Jaws" comes a game by the same name in PC and CPC disk format and **High Steel** on CPC disk. The highly acclaimed **Silkworm**, which reviewers have dubbed "totally awesome" and "absolutely brilliant" joins impressive list of other releases such as **Star Trek V**, **Fiendish Freddy**, **Harley Davidson**, **Balance of Power** and **Steigar**.

PRO-PUNTER UPDATE

The long awaited update to Pro-Punter (the 'better-than-the-pin-method' software for racing enthusiasts) is nearing completion. As previously reported, a new version including much faster data input and overseas courses (including Australian) will be featured. The release date, according to the developers DGA Software, is expected to be during this month (September).

THUNDERBIRDS COMPETITION

To coincide with the Australian release of the new Thunderbird game, your favourite magazine has gone to the enormous expense of letting two copies go for nix. A disc and a tape version will be sent to the first two entries respectively out of the bag after Friday 29th September which correctly list the first names of Jeff Tracy's sons. For more details turn to the review of Thunderbirds a few pages on.

AMSTRAD PROBLEMS

Amstrad do not have much luck with their hard disks! In the first instance it was the PC1512 with certain hard disks causing power problems, then Western Digital Filecards being affected by RF interference. Then came a problem with the 30Mb drives supplied with the 1640s. This was followed by a capacitor missing on the 2086 which could cause data to be corrupted.

Now the Amstrad flagship, the 2386 has a problem. To be fair to Amstrad, this time the blame lies with MicroSoft and their MS-DOS v4.01 which causes problems when two areas of the hard disk exactly 32 megabytes apart are accessed in close succession. Amstrad (UK) have come up with a two byte patch to avoid any mangled data.

Another problem to rear its ugly head is that Lotus Freelance will not run on the 2286 without a maths co-processor present. According to Amstrad the fault lies in Freelance which uses a non-recommended way of checking for the co-processor chip which gets confused with the signals on the 2286 mother board. The result is that the 2286 hangs when you run it. Again, Amstrad (UK) have a patch available for users with the problem.

We assume Amstrad (Australia) can also provide the patches if required, but at the time of writing, we had not received any response from our enquiries.

FOR PCW STAR GAZERS

Some months ago we announced the release of a piece of software called "Startrack" from Discovery Software. It is specifically for PCW owners (all models) and shows any area of the night sky from any position on earth from 1000AD to 2999AD. The user can identify both stars and constellations. Happily we can now advise that copies have arrived in the Mail Order department. The cost per copy is \$54.95.

3-INCH DISC SHORTAGE

There has been a 3" disk famine in the UK for some time now which was beginning to be felt here in Australia. We reported a few months ago that Amstrad had bowed out of the 3" disk market to let others carry on supporting it. Unfortunately, they didn't expect that their exit would make such an impact and leave everyone high and dry.

There is essentially only major producer of the disks, Mitsushita which is part of a complex corporate network. The parent company owns National Panasonic, the company which supplied Amstrad their Amsoft labelled disks. Mitsushita also owns Hitachi who also manufacture 3" disks, although to a lesser extent, for Maxell.

As Mitsushita are capable of

producing around half a million discs a month, it is easy to see why, when they stopped production, the market was left to find alternative sources. These other sources included disks from Taiwan and Hong Kong which proved to be very unreliable. You can easily spot them as they are usually blue or have 'squares with concentric circles' on the casing. Unfortunately a number of big software producers in the UK learned of this too late.

But now Amstrad have renegotiated with Mitsushita, which means that the disks are back in production. However, it also means that the price of the disks are likely to increase marginally as the price now asked by Mitsushita will probably be higher than the original negotiated price.

HAVE YOU GOT A PHD?

No, not a Doctor of Philosophy but a Portable Hard Drive. Reckon have released a Kyocera hard drive, a complete self-contained portable unit designed to run inside any IBM compatible that has a vacant expansion slot. This means it is suitable for both the PC1512/1640 or PC 2000 series.

There are currently three models from which to choose - 20mbs at \$849, 30mbs at \$929 or 40mbs at \$1249 - all supplied with a Western Digital controller fixed to a robust steel chassis. The drives deliver an industry standard transfer rate of

5 mbits/second and an average access time of 62ms.

Installation is as easy as fitting a games card to a PC, it simply pushes into an expansion slot. It can be removed just as easily and then transported to another location and fitted into a different PC.

Reckon are also close to releasing a Portable External Hard drive for the PPC512/640. They have designed their own printed circuit board and the circuitry has been developed so that the hard disk power supply will drive both the Kyocera drive and the PPC. The price is expected to be about \$1100.

MAKE MY DAY

The Amstrad light-gun has been launched in the UK. It's called the Magnum and comes packaged with six games: Missile Ground Zero, Robot Attack, Bullseye, Operation Wolf, Solar Invasion and Rookie. Although the gun is sold with the name Amstrad on the side, it is in fact Trojan Developments who designed, built and manufactured the Magnum for which there are

two version - one for the 464 and the other for the 6128. The software driver for the gun is licenced by Trojan to software houses in return for a royalty payment. Apparently, it doesn't take too long to convert a game from joystick to gun control.

The gun pack is being marketed in the UK by Virgin/Mastertronic and their Australian agents (Mind-scape) are currently considering the product.

U.K. COPYRIGHT LAWS TIGHTEN

The 1988 Patents, Design and Copyright Act came into force last month. It embraces a number of areas including the software industry. In an attempt to protect the industry against pirates who make money out of copying software and selling it, the new Act now defines what can or cannot be done with software.

The Act also outlaws products "designed or adapted to circumvent copyright while being used in the course of business." This is clearly aimed at software which allows copies to be made from what was originally intended to be non-copyable software.

In addition, the future of Romantic Robot's 'Multiface' unit now seems in doubt. Indeed, the boss of Romantic Robot, Alex Goldscheider, has stopped advertising the product for the time being pending legal advice.

The question remains as to whether a successful prosecution could be brought against Romantic Robot if they continued to supply the unit. A few years ago, an Amstrad twin-cassette unit was advertised as being able to copy tapes. A court case ensued which resulted in a judgement that said as long as the device had a legitimate, legal purpose and was not advertised as a piracy device, then it remained a legal unit, despite its capacity to infringe copyright.

The new Act, which became law on 1st August 1989, specifies a two year jail sentence plus an unlimited fine for indictments.

As a footnote, you may have heard that a 32 year old Caulfield man, Deon Berylak, has been bailed to appear in the Melbourne Magistrates Court in November, facing counts of computer trespass and attempted criminal damage. He allegedly loaded a virus into a computer at Swinburne Institute of Technology.

ARE YOU GAME?

A load of new games to tempt your taste buds as well as a new competition for Thunderbirders!



SKWEEK

U.S. Gold and Loriciels join forces and have fun

CPC Disc - \$49.95

PC - \$59.95

SKWEEK...? Never heard of it! I read all the trade magazines that I can afford and I have never seen anything to indicate that a game called SKWEEK was even being contemplated (*that's because you had a pre-release copy. Skweek is now racing up the UK charts- Ed*). This is really an unknown quantity and they actually want me to try to review it! Alright, I'll give it a go. After all, it's got a very good parentage, and who knows, a game with

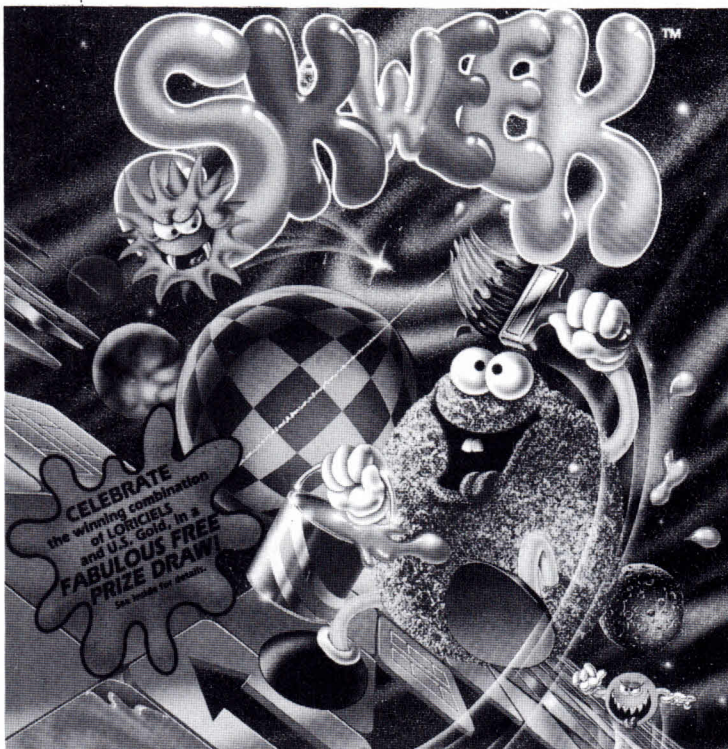
such a funny title as SKWEEK could be good for a laugh.

Skweek is the first game from what appears to be a new joint venture by the U.K. based firm U.S. GOLD and the French based LORICIELS. Both have produced good games before (Leaderboard and Gauntlet from U.S. Gold and Bob Winner and Space Racer from Loriciels) and have produced in Skweek, a well made and well animated product.

The scenario is painted that, on a far away planet live the peaceful people of Skweez. Then, one day the nasty PITARK and his hordes of Schnoreuls attack Skweez'Land and are quickly victorious, and as a further act of humiliation turn all the planets of the system blue. Time passes and Pitark dies. The Skweezettes finally muster the courage to retake what is rightfully theirs, and our hero, Skweek, volunteers to turn the 99 planets in the system back to their rightful colour... PINK?!?!?

You control Skweek and guide him around each of the 99 levels, turning the blue squares pink simply by walking over them. Each level has a differing number of squares to turn, and a time level is set in which you must achieve your goal. It's not all plain sailing, however, as on each level there are a differing number of Schnoreuls left who delight in nothing better than blowing up Skweek. At the start of the game you have five lives, and lose one each time you collide with a Schnoreul, when you fall into the water or when time runs out. Once the level is completed, you receive a bonus based on the method you used to complete the level (more about that later).

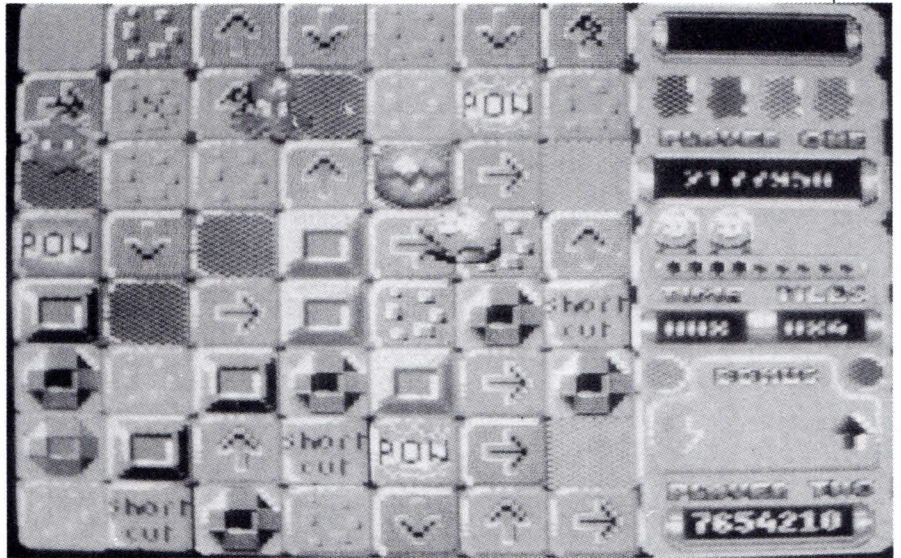
Before you get into the game itself, you are presented with the intro screen which, I must add, looks very similar to the Atari ST screen-shot shown on the back of the cover. Following this is the option menu which allows you to view the high scores, examine the different



bonus icons, choose the type of game you want to play or to play the game. By type of game, I mean that you can choose from a standard game, (starting from level one) or a random game, which means you could start on any one of the 99 levels and play the remaining levels in a random order. Added options for the game are suicide (this allows you to restart a level again), pause, and the ability to turn the background music on or off. The background music changes for each level, and adds well to the atmosphere of the game.

The screen is divided into the playing area, which occupies about 60% of the screen, and the status panel. The status panel shows such information as lives, tiles and time left, as well as the score for both players (I forgot to mention, there is a two player option which you and a friend each control a Skweek, in order to let you find out who is the best Skweek in the house). At various times throughout the game, a bonus icon appears. This can be in various forms, such as a Baby Skweek which awards an extra life, freeze or laser offensive weapons, bonus points (hamburger), added time (egg timer), one of four different coloured Teddy bears or a door. Also on the status panel is a section which shows which bonus has appeared and where it is in location to your current position. There are four ways to complete a level; decontaminate all blue squares, freeze six Schnoreuls, take a door (EXIT) icon or collect all four coloured Teddy bears. The bonus awarded is based on the time remaining multiplied by the bonus rate applicable to the method of completion. Once you have lost all the lives, any high score is permanently saved to disc.

Skweek plays a little in the Pacman style, but the quality of the graphics is much better. It was once written in an English magazine that the graphically best CPC



games were being produced on the wrong side of the English Channel. Well, Skweek is just another piece of evidence that adds weight to this theory. It looks good, it plays well and is terribly addictive. One gripe is that, in the instructions it says that the keys "1", "2" and "3" activates the suicide, pause and music options. This is incorrect however as these features are actually achieved using the "f1" "f2" and "f3" keys on the numeric keypad. Ah well, that's only a minor gripe in a game that is in all other aspects a product of great quality.

Loricels have produced some great products, mostly using Mode 1 to enable them to get the added detail of their sprites. With Skweek, the extra colours of Mode 0 have been used to produce a great game which should keep the whole family, especially the young (and young at heart) occupied for quite a long time. If the union of Loricels and U.S. Gold continues to produce products of this quality, then it will be a team worth watching.

- Vic Renfrew

3-D POOL

Firebird on cue from all angles

CPC Tape - \$29.95

CPC Disc - \$39.95

There's no doubt that computerised 'green baize' games such as snooker, pool or billiards have long been popular pastimes on the small screen. Steve Davis' Snooker was probably the best of the previous bunch working well on both the CPC and PCW. However well presented though, they all do roughly the same and display the table in a bird's eye view. This makes the size of the table disproportionate to the size of the balls and so lacking somewhat in authenticity let alone accuracy. Where 3-D Pool scores over the other versions is its ability to show the player all the angles from the cue ball - and that includes top or bottom spin! More of that later.

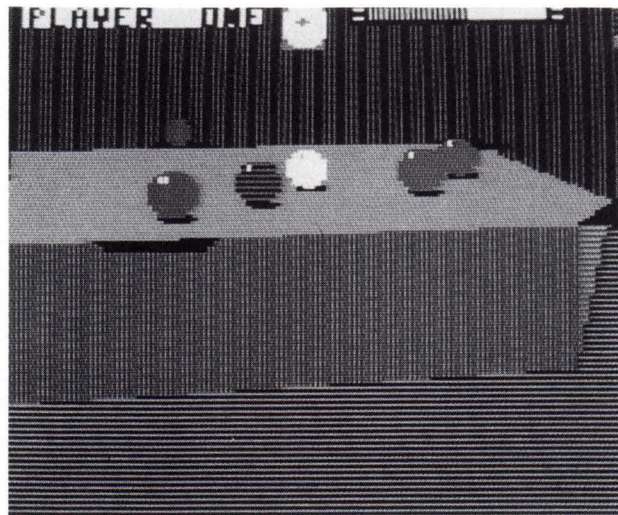
The game consists of a knockout tournament of eight players, the winners playing each other in the semi-finals and the finals between the two remaining winners. Actually its not really the final because the winner of the last match then goes on to play Maltese Joe. If you beat him you become the European Champion - but I can tell you it is easier said than done.

If you need to practice your shots, there is a feature which will provide this for you. The practice option will let you try different methods of potting (or pocketing) balls or for the more advanced player, trick shots can be practiced. These are quite difficult to achieve but exceedingly satisfying when they work. Quite frankly I

got just as much fun out this feature as I did from the main purpose of the game. Anyway, back to the table.

Playing 3-D Pool reminded me of Driller, Total Eclipse and the like. Not of course in the gameplay, but in the presentation of the different angles around the table. The cue ball (the white one) is always in view (unless you purposely set an angle to hide it). The other balls are either a plain brown/orange or striped brown/orange plus a black ball. The rest of the scene consists of different shades of brown/orange (sorry - I can't decide what colour it is meant to be) and green. You would have thought that using mode 0 the programmers would have splashed a bit more colour around the screen - but the lack of it doesn't really detract from the game. Playing on a green screen therefore causes no problems.

One thing you will notice straight away is the speed at which the different angles are displayed - it's quite breathtaking. In taking a shot, you need to line up the white ball with the one you wish to hit, an obvious statement I hear you say, but this is done by moving the viewing angle bearing in mind that the white can only move vertically up the table. Another feature is the ability to impart top or bottom spin. That in itself is not new to computerised pool, but with 3-D Pool the viewing angle changes so that you can see exactly the angle you have chosen (great for the trick shots!).



The computer players all seem to have their own style and should not be dismissed. They all play a mean game. As the human player you automatically get the first and last break of the three frame match with the computer getting the break in the middle frame. Unlike a shoot-em-up, 3-D Pool is sufficiently difficult to keep you wanting to do better rather than give up. I had hours of fun, frustration and occasional triumph but alas I never became the Champion. At least, not yet!

SILKWORM

The two-player chopper conversion from Virgin

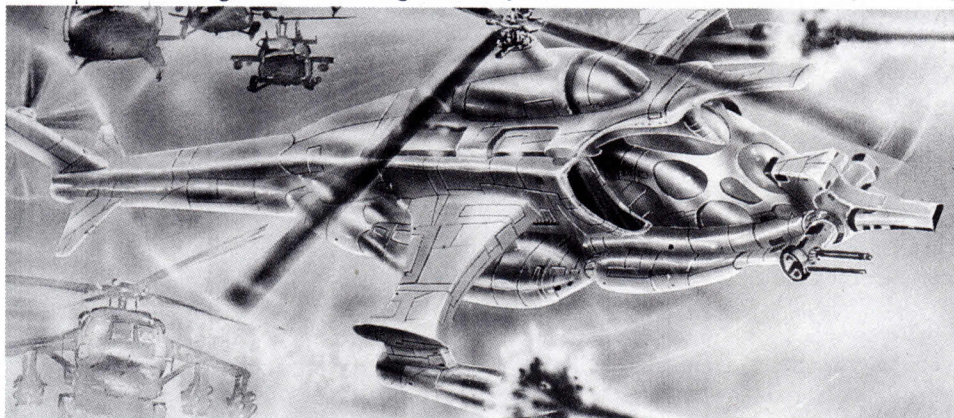
CPC Disc - \$49.95

Following the "Fourth Great War", nuclear arms were outlawed by a series of international treaties. The mini-nuclear war had caused the earth to move in its orbit around the sun and any further nuclear action would send it spinning into space and oblivion. Civilisation had returned to conventional low-explosive weapons systems, albeit with high delivery rates. Despite the fact that the fire power available was still awesome, due to the incredible number of tanks, planes, choppers, mines and field guns (all with high delivery rates), some

'generals' were not happy. The commanders of the One Continent Alliance have joined forces to show the political leaders that they have power - all the land, sea and subterranean forces of the Alliance have rebelled and a military coup looks inevitable. If this succeeded, the military would return to nuclear armaments.

A small team of scientists, loyal to the people, are working on advanced helicopter and land vehicle projects in the hope that a suitable pilot and/or driver can be found to fight through the advancing armies and destroy the warmongering generals. Earth's survival hangs on a gossamer-fine silk-like thread, hence the codename for civilisation's last stand - Operation Silkworm. (*What a long story!* - Ed).

There is no need to guess who will be volunteering for the mission, but with both the chopper and the land vehicle available a small war could ensue in front of your CPC while you fight out who is going to command what, assuming that there are two of you wanting to play the game (which



is not absolutely necessary but makes life a little easier in dealing with the oncoming droves). Both vehicles are displayed on the screen anyway, whether or not two players take part and the more nimble fingered players could play both parts for an almost impossible challenge!

There are heaps of levels, the first few being reasonably easy. The idea is to fight your way through and destroy the oncoming army of choppers and tanks to reach a general at the end. There are a number of plasma mines at ground level which, if hit by your fire, emit a gas. Naturally they have to be destroyed if you are also using the land vehicle, but the gas also acts as a shield. If you manage to blast two of these mines and collect both clouds of gas you effectively create a smart bomb clearing everything from the screen.

Now and again, a 'goose-neck' battle chopper will appear. It requires some heavy fire to despatch it, but you are rewarded with a "+2" bubble which means

double the fire power. At the end of the level an enormous helicopter comes into view (the general's command vehicle). Even more frantic shooting is needed here to eliminate it before it launches a missile at you.

As each level is encountered, the number and aggression of the enemy increases. The generals become harder to destroy (some reside in 'death-star' type satellites while others drop from the sky in large tanks) sending bouncing bombs to destroy your land vehicle and homing missiles if their 'exocets' fail.

Silkworm is certainly fast and furious (thank goodness for unlimited ammunition). The graphics are well detailed, colourful (they pass the green screen test) and match the speed of the game. Although lacking innovative features, it is challenging enough to keep one (or two) trigger happy gamers occupied for quite a while. It's a pity that the importers have decided not to bring in the tape version.

THUNDERBIRDS

Grandslam's offering is FAB value with no strings

CPC Tape - \$29.95

CPC Disc - \$39.95

Time dulls the memory, but I think it must have been some twenty years or more ago that I first watched Thunderbirds on the television. The series was the brainchild of Gerry Anderson and in the early days had a cult following. Of course, technical brilliance achieved in such films as Star Wars puts Thunderbirds back into the puppet show era in comparison, and after all that's what it is. But that doesn't mean it has lost any of its charm or its excitement for the current young generation. So it was with a tear of nostalgia that I loaded this latest game from Grandslam.

I will admit that at first I ignored the gameplay just to study the graphics. The movement of the characters is faithfully reproduced - you know, the jerky walk, the exaggerated head movements - except this time you can't see the strings.

For those who are new to the Thunderbirds, I will remind you that the world renowned organisation called International Rescue has its headquarters on Tracy Island. The IR team consists of Jeff (father) and his five sons, Brains (the guy who designed the Thunderbirds equipment), Kyrano (the cook) and his daughter Tintin, Lady Penelope (ex-secret agent) and her chauffeur Aloysius "Yes M'Lady" Parker. Jeff Tracy's five sons each have a Thunderbird to look after and each Thunderbird can perform a specialist task. Thunderbird 5, for example, remains in orbit around the earth waiting for distress messages which will activate the International Rescue team.

Thus the first scenario is set with John receiving an urgent message from some trapped miners who seem doomed as their mine begins to flood. A plan is hatched which involves Brains tunneling down to the miners

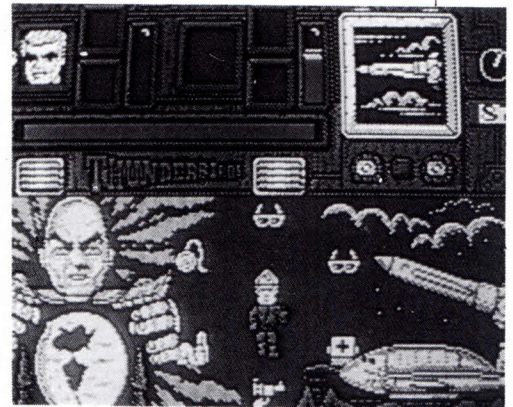
and stopping the flooding while Alan searches them out to eventually winch them up to safety.

Each IR member is allowed to carry two items of equipment which could be useful in the rescue. The trick is to work out which ones - and perhaps dropping some to use later.

Naturally the mine is in a bad shape and subject to cave-ins. Although you control both Brains and Alan, you don't have to do it at the same time. A toggling feature is provided which switches between the two characters.

Brains has a difficult 'platforms and ladders' style maze to negotiate while Alan needs to find some objects to speed him on his quest. While all this is going on there is a time limit by which you must complete the rescue. At first I thought that this time restraint was too short as I failed a few times, but with practice and remembering which items were the most useful I succeeded in making the rescue.

Fortunately that is not the end - it's just the beginning! There are three more adventures involving the IR team and their ingenious equipment and they are more complex than the first. One involves despatching Thunderbird2 and Thunderbird4 to rescue the crew of a



sinking submarine. The obstacles are of a marine nature; sharks, the sub's nuclear reactor, lack of oxygen. If you manage to sort that lot out, you move on to the next where Lady Penelope has identified the reason for the submarine's problem - a strategically placed mine. In order to discover the culprit, it is necessary for Lady P. and Parker to break into a bank and steal a file. Once again a time limit is in operation as you deftly avoid a sophisticated security system and guards, feverishly solve puzzles and finally attempt to open the bank's safe. Having discovered who the Mastermind is, the final adventure involves stopping him from blackmail-

ing the world with one of his evil plans.

The graphics are functional with a lot of detail and don't lose much on a green screen. The sound effects are also functional and 'fit' the mood of the game. Perhaps the time constraints may deter some lazy players, but there is no getting away from the addictiveness of Thunderbirds. Couple the four well thought out levels (on two cassettes or two disks) with the 'magic' and excitement that Thunderbirds invokes, throw in a free audio tape with all the favourite Thunderbird tunes on it and you have an extremely good value non-violent package. I thoroughly recommend it.

COMPETITION

OK, all you FAB people out there! Here's a chance for **TWO** lucky Thunder-freaks to grab themselves the latest hot release from Grandslam that has the CPC world talking.

We will give away for absolutely **FREE** two copies of Thunderbirds (CPC Disc or Tape formats), one each to the senders of the first two correct answers drawn from all the entries received by Friday 29th September 1989.

There's just a small catch, though...

We want you to give us the first names of the five Tracy brothers, and we're giving no clues! Write them on the back of an envelope with your name and address and send your entry to:

Thunderbirds Competition
The Amstrad User
1/641 High Street Road
Mount Waverley, Victoria 3149

No correspondence with entries will be allowed and it's just one entry per person.



MASTERFILE III

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

FIRMLY ESTABLISHED...

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

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

SO VERY VERSATILE...

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

ALL THIS POWER...

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

MASTERCALC 128

THE MODERN CPC6128 SPREADSHEET SYSTEM

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

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

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

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

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

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

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

Send your order now to:
THE AMSTRAD USER
641 High Street Road
Mount Waverley
Victoria 3149

Tel: (03) 233 9661

OLYMPICS FROM EPYX

The Games - Summer Edition is the latest release from Epyx in their Olympics series. Vic Renfrew has a grab at the laurels.

EPYX have developed a standing, over recent years, for producing Olympic sports simulations. Culminating with the release of GOLD, SILVER AND BRONZE (available from The Amstrad User), this tradition has been continued with their latest offering. Titled THE GAMES - SUMMER EDITION, this was originally launched to cash in on the hype of the 1988 Olympic Games held in Seoul. The Amstrad version arrived too late, however, but that doesn't matter as the program is loaded and the Games begin...

KOREAN THEME

On loading the program, the first screen to be presented features an athlete clearing a hurdle. From there it is on to the opening ceremony beginning with a map of Korea which is gradually overlaid with still photos depicting scenes of a Korean theme until the title screen is produced. This is done to the accompaniment of some definitely Korean sounding music. Once this is completed, the method of control is decided and then it's on to the Olympic village.

The Olympic Village depicts the various arenas where the events are conducted. While this screen is displayed, the player may practice (disc only) any of the eight events or can gain access to the main menu for the game. This menu allows you to compete in all eight events or only in some of the events (as few as one), view the current World Records, change the method of controls, watch the opening ceremony again or return to the Olympic Village for more practice.

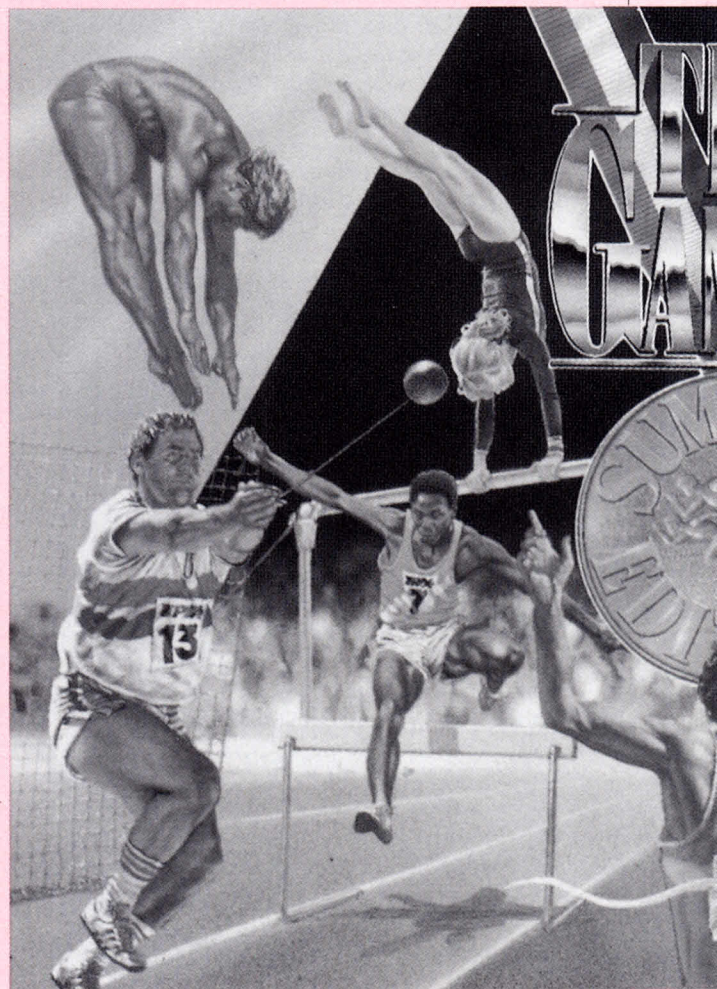
Firstly the name of each participant is entered (up to eight can compete for the title of the greatest Olympic country). As well, each must choose which of 16 they will represent. Once this is completed, it's on to the competition.

The first event is Diving. Here you are presented with a figure on the diving board and, after setting the amount of spring in the board, you perform three dives, either forward or backward, and the five judges score each dive for the quality of the dive, height of the dive,

number of combinations and the quality of the water entry. Scores start at 0.0 and go up to 10.0. When each contestant has completed their dives the final standings and medal results are shown (this occurs with each event).

The second event sees you in the Velodrome, where you can either compete against another human opponent or against the computer. If you compete against the computer, the fastest time for the event decides the medals. Here you are presented with a plan view of the velodrome filling half the screen, while the other half is divided into the two combatants' forward views. At no time can you see your opponent except in the plan view.

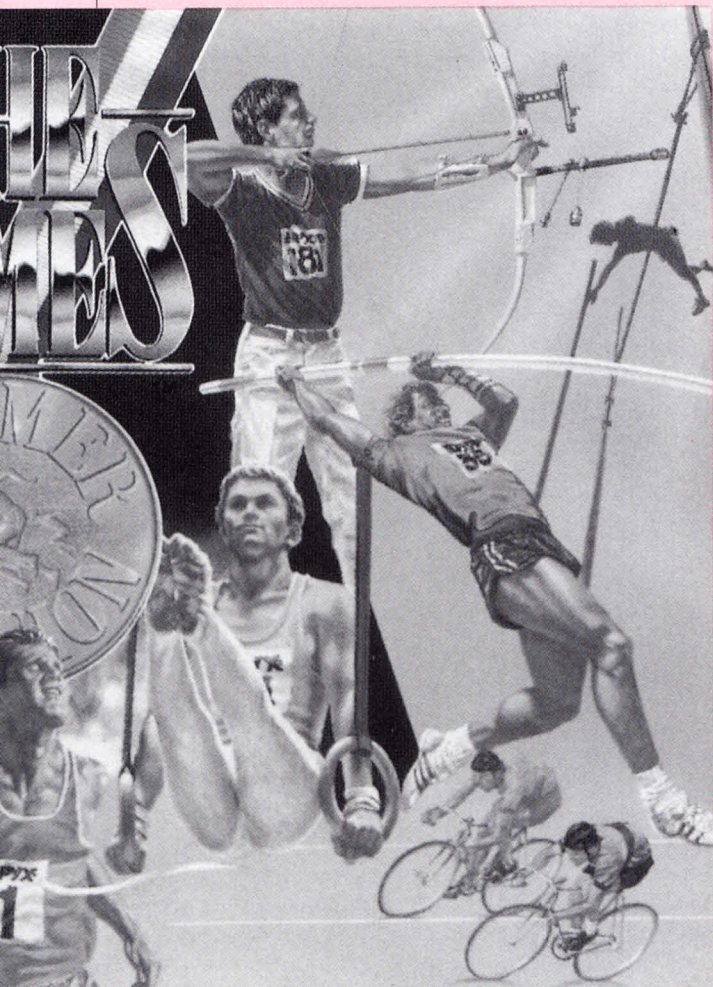
The next two events are both gymnastics, namely the Uneven Bars and the Rings, and are perhaps the hardest events in the competition. Here you must perform the



various sequences to allow for a good score to be earned by moving the joystick. The instructions show a diagram for both events which, if followed could lead to

a world champion result.

Next it's out to the track for the Hammer Throw, the 100 metres Hurdles and the Pole Vault. Throwing the hammer is the most impressive here, with a bit of joystick waggling required to ensure you obtain a successful throw. If this occurs, you view the scene from down range with the hammer flying towards you and your athlete, in the distance jumping for joy. You get three throws to try for maximum distance. With the hurdles, each player competes separately with a computer controlled pacer. Best time wins the gold - stumble over a hurdle and you're out of the race. In the pole vault you choose the initial height, then you are presented with a view of your athlete, as seen from the tip of the pole. Once he is into his run, it reverts to the standard side on view and you control the jump over the bar.



The last event is Archery, which is my personal favorite. Here, the bulk of the screen shows your archer facing down range at his target. After pressing the fire

button, the top left corner shows a close up of the archer and by moving the joystick to the left you draw the bow. Another press of the fire button and this is replaced by a view of the target with the sights of the bow moving towards the bull's eye. Once you are happy with the sighting, press fire and the arrow flies towards the target. Next you get a full screen close-up of the target with your arrow in it and this is scored. You get to fire three arrows within a 90 second time limit. Not much of a challenge, but the wind (strength and direction shown by the wind sock) will make it necessary to either aim off or wait for it to drop.

Once all events are completed, the final medal count is displayed and then the closing ceremony occurs. During this, the three countries with the most medals are shown on a dais while the Korean music is again played, and the remainder of the closing ceremony commences, which features the Korean style still shots (as seen in the opening ceremony) over a flag. After this it's back to the main selection menu for more action in your quest for gold.

IN CONCLUSION...

THE GAMES is a well put together package which uses both colourful Mode 0 graphics (for the ceremonies, archery and hammer throw) and high resolution Mode 1 for the other events. The events are not all joystick pounding, with only the hammer, pole vault, cycling and the two gymnastic events threatening to break your joystick. The opening and closing ceremonies are well drawn and add flavour to the whole game. The practice facility adds greatly to the value of the program, as some events can only be successfully tried with a lot of practice. Not having this facility on the cassette version detracts from its long term playability. Added to this is the fact that every event is loaded individually from disc; this makes the cassette version a less attractive offering than the disc version.

THE GAMES - SUMMER EDITION is a well produced package with very detailed instructions. It's another reason why EPYX are becoming known as the experts in the Olympic event simulations. An addictive program which is best played with a group of friends. After all, it becomes boring to sit and beat yourself all the time. If you have enjoyed EPYX'S other offerings you will love this one; if not, you will still enjoy it if you give it a chance.

At the time of printing, the distributor of Epyx titles was still sorting out details regarding the importing of The Games, Summer Edition (CPC version), and so no prices are available. However, the PC version is available throughout Australia from various dealers and from The Amstrad User for \$49.95 (5.25" or 3.5").

CPC SERIAL INTERFACES

Craig "The Hermit" Nicholls returns this month with more brain-stimulating discussion on CPC communications...

Over the next two installments in our series on Communications for the CPC, I'd like to introduce you to two different Serial Interfaces for the Amstrad CPC computers. Firstly, we'll have a look at the Amstrad/Pace RS232 and then go on and take a look at a relative new-comer to the market: The Cage Comms Rom.

There is another interface around that I know of, but as far as I can ascertain it's in rather short supply. The one I'm referring to is the KDS RS232. If anyone knows of a source for this interface, I'd be glad to hear about it. For all intents and purposes the features of the KDS offering are virtually identical to the Amstrad/Pace version. There are a few differences but I don't have the KDS version, so you'll have to settle for a review of the Amstrad Pace/Serial Interface.

ON WITH THE REVIEW...

The AMSTRAD RS232 Serial Interface is manufactured by Pace Micro Technology (UK) and comes with COMMSTAR software resident on a removable ROM. This interface is suitable for any of the CPC's, connected to the Disc drive port on the 464 and into the Expansion Port on the 664/6128.

The heart of this unit is encased in a small black box with a ribbon cable protruding from the front and a 25-pin D connector (Male) positioned on the left side of the

casing. This D connector is for the cable to the modem.

Once the unit is installed you power up and you get a sign on Message indicating that all is well. The Commstar software that comes with the unit is really two Terminal programs in one. One for ASCII type BBS's - HONEYTERM, and one for VIDEOTEX Services - HONEYVIEW.

For starters let's take a look at HONEYTERM. This is more or less a standard Terminal program, perhaps not as many features as a few of the Public Domain programs, but it is fully menu driven and is extremely easy to use.

From the READY prompt, typing |CS (Shift-@,CS) will take you to a menu from which you can choose which program you wish to use, alternatively, you can go straight to HONEYTERM by typing |HT. Once in Honeyterm you are confronted with a straightforward Terminal screen. A one line menu on the bottom line of the screen shows such things as elapsed time, current disc drive (A: or B:), system status, output stream and how much memory is left in the memory buffer. This memory buffer is a very handy feature as I'll now explain.

Whenever you are on-line to a BBS the information is displayed on the screen from top to bottom and as the screen fills the text is scrolled towards the top of the screen. This can be rather annoying if you're

writing or reading a long message and you forget what you have said or read.

This problem, amongst others, is solved by using a Buffer to store the text as it is received from/transmitted to the Host. Under Honeyterm this buffer has a maximum size of 24k. The best thing about the Buffer is that you can tell it to direct the output to either the screen, a printer or to a file. Sending the output from a BBS session to a file is always a good idea as once the session is finished you have a record of everything that transpired and can review any part of it later. If you use the same filename all the time you will always have a record of the latest session (handy when you can't remember the last time you were on!).

THE FEATURES IN HONEYTERM

As well as the buffer spooling option there are also other features supported by Honeyterm. These are all accessed while in Terminal mode by pressing CONTROL in conjunction with one of the Function keys.

The first option, pressing <CTRL>+f0, displays the CONFIGURE menu. This has to do with the way in which your terminal interacts with the Host. With this menu selected you can alter things such as the width of the display, the shape of the cursor and the colours of the display (only two are used - blue and yellow). There are two items here that demand special attention. The XON/XOFF option and the MONITOR option.

The XON/XOFF protocol is a simple data flow control. It uses the same control characters that we use while 'TYPEing' a text file under CP/M. During a session on-line, there are times when we need to halt the flow of data from the host (e.g. when reading or writing to disc/tape, when reading messages too large to fit on the screen, etc.). This is accomplished by using <CTRL>-S to halt and <CTRL>-Q to restart (under differing circumstances <CTRL>-X,K or C will

cancel the display and return you to the prompt).

Control characters (for example, CHR\$(0-31)) play an important role in ASCII BBS displays. All the formatting of the text that we see is controlled by these characters in much the same way as we can use the CHR\$(X) function under BASIC. A consistently distorted display whilst logged on to certain BBS's will almost certainly mean that your terminal is not set up correctly. By setting the MONITOR command under Honeyterm to ON these control characters will be ignored and will instead appear as inverse characters on your display (e.g. ^G, ^M, etc.). It is then a matter of spotting the offending character (usually ^J-Linefeed) and changing the appropriate setting using <CTRL>-f0 at your end or from the set-up menu (if there is one) on the host.

The next option, <CTRL>-f1, is used to configure the RS232 interface itself. From this menu you can select the appropriate settings for the baud rate, parity, word length (data bits, stop/start bits) and hardware handshaking.

The Filing option (<CTRL>-f2) allows standard actions such as loading or saving the memory buffer of the configuration of the unit, cataloging disc or tape and Erasing files from disc or tape.

Next we come to the File Transfer menu, <CTRL>-f3. Once you have selected the file you wish to download from or upload to the host, you use this option.

This gives you two options: to transfer in ASCII mode or using the XMODEM protocol. ASCII mode allows you to transfer only those files which are pure ASCII form such as document files, data files etc. To transfer binary and BASIC files, XMODEM must be used. XMODEM is a protocol that has been in use for over ten years for transferring files from one computer to another. It involves breaking up the data to be transferred into blocks of 128 bytes and then calculating a checksum which is

then tacked on to the end of the block. Therefore, when the checksum is received by the other computer it compares the checksum to it's own calculations and if the two do not match then the receiving terminal will request that the block is re-sent as obviously, the data has been corrupted in transmission.

This brings us to one of the few bugs within the software. While downloading doesn't seem to present any problems, BASIC files that you wish to upload seem to get corrupted when using XMODEM under Honeyterm. The solution to this is to save your BASIC programs as ASCII before uploading them. e.g. SAVE "MYPROG.BAS", a then upload in ASCII mode.

"It's not a good idea, or very polite for that matter, to use the off-line option in the middle of a BBS session."

The next two options, <CTRL>-f4 and <CTRL>-f5, relegate control from and to the modem respectively. It's not a good idea, or very polite for that matter, to use the off-line option (f4) in the middle of a BBS session. Unless you have signalled your intentions to the host, dropping the carrier mid-way through a session can cause the host computer to crash. Needless to say, you won't be very popular with the Sysop.

As mentioned earlier, the Spooling option (CTRL-f6) allows you to send the incoming data to either RAM, a file or to the printer.

The print option, CTRL-f7, allows the printing of either the screen, the current contents of the RAM buffer or a previously saved text file.

Pressing CTRL-F8 whilst a disc

drive is fitted allows selection of either tape or disc (drive A: or B:). Supposedly you can transfer into Honeyview, the videotex program, from this menu if you are off-line but this option won't work for me.

The last of the options <CTRL>-f9 is for User Defined function keys. All of the function keys when used in conjunction with the shift key can be programmed to hold a string of up to 32 characters, including control characters.

RSXs FOR PROGRAMMERS

As in all general purpose utilities, you may find that the program is somewhat lacking in some specialised applications. In this case, if you are a competent BASIC programmer, the authors of this software have made available a set of commands with which you can access the RS232. These commands take the form of RSX's and can be incorporated into your BASIC program. Practically all of the operations of the RS232 can be controlled with these 'bar commands'. The commands are well documented and two example programs are listed at the end of the manual. A ROMON command is also available to allow you to switch in or out of any of the 7 AMSTRAD ROMs.

Honeyterm, as terminal programs go, is very easy to use and master but once mastered it's limitations begin to be obvious. For one thing, auto-dial modems are not catered for. In addition to this, only two file transfer methods are available. While XMODEM is better than nothing, it has been superseded by a new generation of faster and more reliable protocols such as ZMODEM & KERMIT among others. However, we all have to start somewhere and Honeyterm is an ideal stepping-stone.

Next month, we'll take a look at the other program packaged with the AMSTRAD/Pace RS232, Honeyview, and its superior equivalent: The Cage COMMS ROM.

Until then, however.....Ciao!!

SATCHEL'S STORY

Down in South Australia the Education Department is steaming ahead with their Satchel Software range. Now other states are realising they're worth more than a cursory glance...

It would be fair to say that until recently, we've been a little unfortunate "Down Under." We may be the lucky country by name but that doesn't necessarily apply to the Australia that gets talked about in the annals of international computer software research and development. Whereas the UK and the US have plenty of home-grown software houses developing the software their countrymen demand, we in Oz are expected to accept whatever comes from overseas and make do.

Although things are now beginning to take a turn for the better, the reality is that unless one is prepared to spend big dough on designer software, one must suffer from the "adaptation blues." UK accounting software has to be 'adapted' to our tax system - VAT talk being rather redundant. Imperial needs converting to metric, American English needs translating into fair-dinkum language, and educational programs need to be adapted to suit an Australian curriculum. Not good indeed.

Well, there have been goings on down here. As the writers and designers of serious software begin to realise the potential market there is in Australia, they make time to alter pound signs, add u's to American "...or" endings, redesign tax functions and so on. But it's

slow in places, particularly educational software. There is only one really satisfactory answer to the problem of Australianising software and it's this: get Aussies to write the stuff.

The problem with educational software has been that offerings from overseas are not always entirely relevant, accurate or appropriate to our children. Teachers and parents hesitate because our children weren't obviously the intended "target audience." Clearly the solution is to have the software developed in Australia, by people who are aware of the needs of Australian students and teachers, and who can therefore shape the software to slot conveniently into the curricula of the students at various year levels.

Until recently, that had mostly been too much to ask. Computers were always too expensive, incapable of the tasks required and hidden behind a curtain of esoteric 'computerese.' Teachers feared the machines and the idea of "learning a new language", assuming they were even offered the opportunity to consider the viability of using computers in the classroom. We've moved on a bit since then, happily.

Most schools are now using or considering the use of computers in some shape or form, and much of the fear has been dispelled. There's

even a Centre down in South Australia dedicated to supplying schools, teachers and students with relevant, high quality and well priced educational software. Let's pay them a visit...

A VISIT TO ANGLE PARK

Angle Park Computing Centre is an Education Department of South Australia project established entirely to research and develop the use of computers in primary and secondary education in South Australia. In this capacity, the Centre is constantly developing software for distribution and use in schools and to this end some years ago started the Satchel label of software products.

What in one way really sets Angle Park apart from other software development people is the sheer volume of information and knowledge they have amassed in the time the Centre has been operating. Remarkably, the Centre has been in operation since 1967, putting APCC in a unique position to assess and criticise the use of computers in education.

The staff come from various backgrounds; they include professional educators, programmers, document writers and support staff. The educators are experienced teachers and administrators and together share an expertise that covers all levels of primary and secondary education. At the same time as they are working at Angle Park, the staff is also involved in advisory and consultancy roles, making for busy workdays and well deserved holidays.

The staff at APCC share a common understanding that computers offer tremendous assistance and challenge to teachers and students alike. In recent years they have been heavily involved in developing programs to facilitate the use of various computers in schools - particularly IBM-compatible machines and with much success, the humble Amstrad CPC! In fact, the CPC6128 has been very useful in providing a low cost

solution to the implementation of computers in the classroom, particularly at primary levels (*and we never doubted it for a sec! - Ed.*).

The aims of Angle Park Computing Centre can be roughly divided into four areas:

- the training and development of teachers;
- the support of human networks and information dissemination;
- the research, monitoring and evaluation of schools' computing; and
- the development of courses, materials and software.

So in fact, APCC goes far beyond simply writing and distribution software, but acts as an organising body, as well as a resource base for schools in South Australia, and beyond. APCC are involved in developing a network and BBS system for South Australian schools, thus allowing teachers to access a number of databases, and a far greater information base than would ever otherwise have been possible. This sort of work requires serious dedication and above all, a level of expertise normally not expected from anything less than a private consulting firm or the like.

WHAT'S IN SACHEL?

Satchel, the software label of Angle Park Computing Centre, will be looked at more closely in later issues, but it is worth considering what this range of educational products for the CPC and PC has to offer us.

Although developed primarily for use in classrooms and in the context of a balanced curriculum, the Satchel product range can also be used to great satisfaction in the home as a support tool to classroom work. In fact, a lot of the Satchel range has so carefully been "disguised" as fun software that children will likely play these "games" without ever consciously recognising the underlying principles being taught. Some Satchel software titles can thus be seen as an alternative to shoot-em-ups and adventures, as well as, more

obviously, educational tools. Conscious of the nature of software usage in schools and at home, Angle Park have created an attractive pricing policy to accompany their Satchel range. Aware of the critical issues of copyright and price, APCC have identified these needs:

- a relatively low unit price for packages;
- a reasonable site licence policy;
- availability of additional manuals with the site licence; and
- availability of concessional packages for student and teacher use at home.

Now, although not all of the above are really relevant to the average reader of this article, they do go to illustrate a point well: a local software developer with a local

"... Angle Park have created an attractive pricing policy to accompany their Satchel range."

distribution area can afford to spend time sorting out matters that an overseas company might not be able to consider.

Satchel has met all the above requirements in its pricing policy for MS-DOS products. Satchels offers a low, single-unit price and a site licence (mainly for a school environment) about 1.5 times the unit price. Also, "attractive" prices are offered for students and teachers willing to buy an extra copy for private use.

The Satchel product range is the result of years of research and development in South Australian schools. As Angle Park explain: "The Satchel product range results from extensive experience with the use of computers in schools and reflects the best classroom practices in implementing computer applications. The Satchel packages exploit

fully the capabilities of the equipment and the potential of the computer as a tool for use in the classroom by students and teachers. Each package is tested in the classroom environment, has high quality documentation and must meet strict Education Department approval guidelines." More about the various Satchel packages in the coming months.

WHAT LIES AHEAD

With the mainstream slowly catching up with Angle Park, the Centre has chosen to operate on the principle of providing a service in those areas of activity that cannot be reasonably expected to be serviced within the school community. This in practice means that the Centre is expecting that as schools acquire knowledge and understanding, they will no longer need to rely on APCC for support, but will rather train and equip teachers internally. Angle Park are also working towards decentralising the training programs away from the Centre by developing self-teach packs that teachers can use and learn at a time and place convenient to them.

APCC is also spending time on the further development of Satchel software, including a powerful database package for IBM-compatible machines. Although intended primarily for schools, this software is considered relevant to home users as well and so time in the following few issues will be spent examining a number of packages for the CPC.

It is refreshing to see a quality, well-priced alternative to the commercial educational packages on the shelves. Angle Park Computing Centre are a force to be reckoned with in South Australia and are now making their presence felt in other states as well, which can only be a good thing. It's also good to see that it's not only in the UK that the CPC is being used in the classroom.

A number of titles in the Satchel range will soon appear on the mail order listing of this magazine. These will be worth more than a casual glance.

10-LINERS

Easy to type in and a lot of fun too, these two 10-liners will give you hours of enjoyment!

CECIL THE CENTIPEDE

A recent accident at Megacarats diamond mine has left the company with only one employee - Cecil. His job is to clear 150 diamonds from each mine, while trying to avoid the poisonous fungi. Like all good centipedes, Cecil grows each time he collects a diamond, until the maximum length of 20 segments is reached. Sadly, Cecil can't count too well, but he does know that he'll be stopped when 150 is reached, and sent to another mine.

Movement is controlled by the Z, X, K and M keys, but be warned, once started Cecil won't stop unless he reaches the edge of the screen. Each mine contains 200 diamonds, which allows the more difficult ones to be left alone.

```

1 ' CECIL THE CENTIPEDE
2 ' By Simon Mathews
3 ' The Amstrad User, Sept. '89
10 SPEED INK 10,10:MODE 1:BORDER 2:CLS:INK 0,0:INK 1,11
,2: INK 2,18:INK 3,26:DIM scr%(40,25),posx(20),posy(20):
FOR a=1 TO 100:x=INT(RND*38)+2:y=INT(RND*23)+2:scr%(x,y
)=3:NEXT:FOR a=1 TO 200:x=INT(RND*38)+2:y=INT(RND*23)+2
:scr%(x,y)=1:NEXT
20 c%(0)=32:c%(1)=227:c%(2)=224:c%(3)=238:c%(4)=231:FOR
b=1 TO 25:FOR a=1 TO 39:IF scr%(a,b)=0 THEN 30 ELSE LO
CATE a,b:PEN scr%(a,b):PRINT CHR$(c%(scr%(a,b)))
30 NEXT:NEXT:PEN 2:1%=10:x%=20:y%=13:FOR a=1 TO 10:posx
(a)=x%+a:posy(a)=y%:NEXT:hx=x%:hy=y%:scr%(hx,hy)=2:LOCA
TE hx,hy:PRINT CHR$(224):FOR a=1 TO 1%:LOCATE posx(a),p
osy(a):PRINT CHR$(231):scr%(posx(a),posy(a))=4:NEXT:WHI
LE INKEY$="":WEND
40 dead%=0:x1%=0:y1%=0:WHILE NOT(dead%):i$=UPPER$(INKEY
$):IF i$="Z" AND hx>2 THEN x1%=-1:y1%=0 ELSE IF i$="X"
AND hx<39 THEN x1%=1:y1%=0 ELSE IF i$="M" AND hy<24 THE
N y1%=1:x1%=0 ELSE IF i$="K" AND hy>2 THEN y1%=-1:x1%=0
50 t1=hx+x1%:t2=hy+y1%:IF t1<2 OR t1>39 OR t2<2 OR t2>2
4 THEN 90 ELSE IF scr%(hx+x1%,hy+y1%)=3 OR scr%(hx+x1%,
hy+y1%)=4 THEN dead%=-1:GOTO 90 ELSE LOCATE hx+x1%,hy+y
1%:PRINT CHR$(224):LOCATE hx,hy:PRINT CHR$(231)
60 IF scr%(hx+x1%,hy+y1%)=1 THEN h%=h%+1:IF 1%<20 THEN
1%=1%+1

```

```

70 IF h%>149 THEN dead%=-1:GOTO 90 ELSE IF x1%<>0 OR y1
%<>0 THEN FOR a=1%-1 TO 1 STEP -1:posx(a+1)=posx(a):pos
y(a+1)=posy(a):NEXT:posx(1)=hx:posy(1)=hy:scr%(hx,hy)=4
80 LOCATE posx(1%),posy(1%):PRINT CHR$(32):scr%(posx(1%
),posy(1%))=0:hx=hx+x1%:hy=hy+y1%
90 WEND:INK 1,6:PEN 3:INK 3,13,26:IF h%>149 THEN LOCATE
14,10:PRINT"Congratulations"ELSE PEN 2:LOCATE hx,hy:PR
INT CHR$(225):PEN 3
100 LOCATE 7,12:PRINT"Press spacebar to play again":WHI
LE INKEY$<>" ":WEND:RUN

```

BOX CLEVER

The screen will display a row of boxes numbered 1 to 9, with an extra box displayed under the fifth. In this will appear a randomly generated number in the range of 0 to 99. You select one of the nine boxes in which to place it, and the process continues until each box contains a number. Sounds easy enough, but the difficulty is that you've got to place the numbers in ascending order, from left to right.

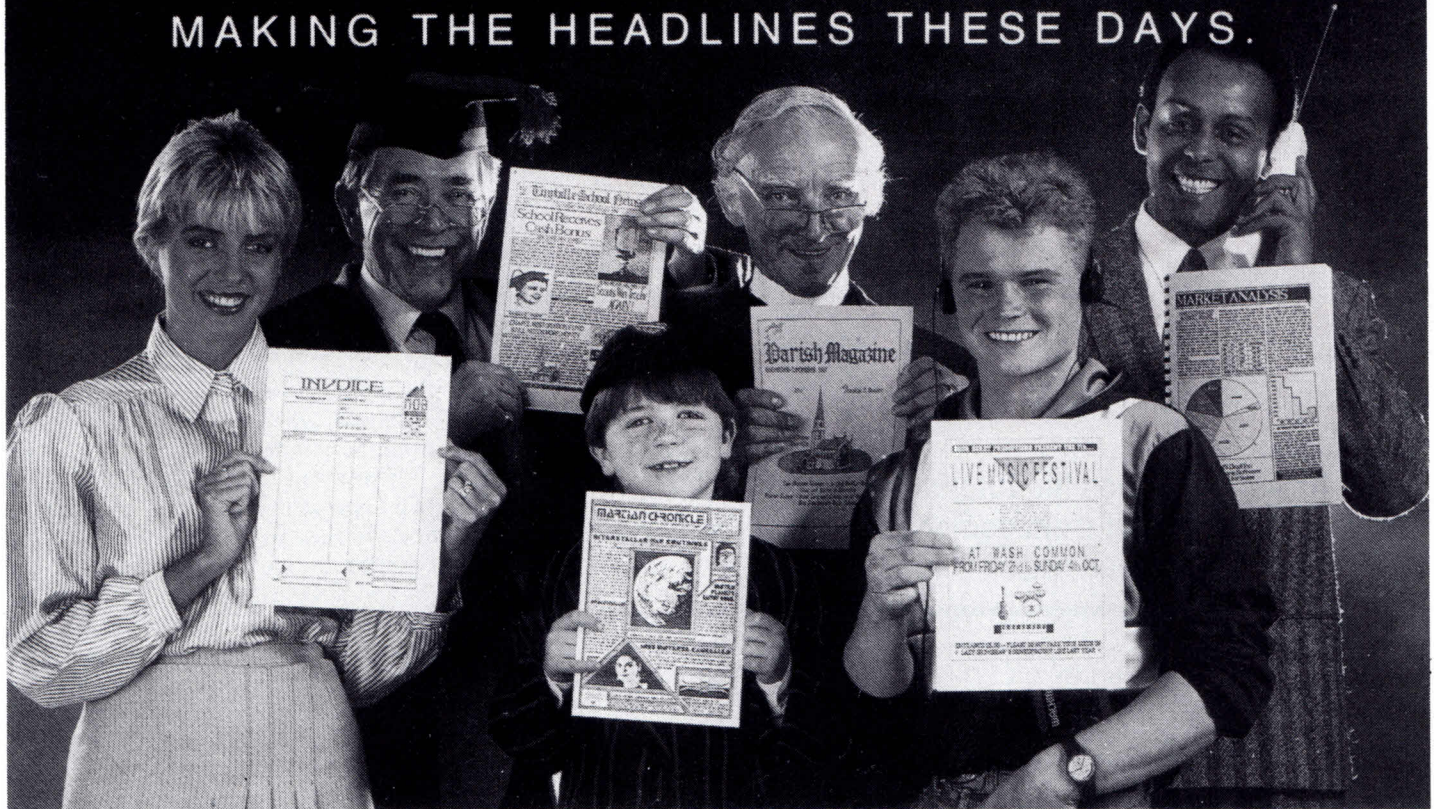
To help keep track of the progress a high score will indicate how many you've managed to put in the correct order. If you manage all nine a bonus will be given, making ten the highest possible score. Do you think you can get the perfect ten?

```

1 ' BOX CLEVER!
2 ' By Karen Johnson
3 ' The Amstrad User, Sept. '89
10 BORDER 6:INK 1,26:INK 0,6:PAPER 0:PEN 1:WHILE -1:RAN
DOMIZE TIME
20 t1c$=CHR$(150):trc$=CHR$(156):m$=CHR$(154):s$=CHR$(1
49):blc$=CHR$(147):brc$=CHR$(153):CLS:LOCATE 14,1:PRINT
"Hi-score =":hiscore
30 b=6:FOR a=1 TO 9:GOSUB 100:LOCATE 4*a-2,5:PRINT a:NE
XT:a=5:b=11:GOSUB 100:done=9:WHILE done<>0:box(0)=1
40 num=INT(RND*100):ok=1:FOR a=1 TO 9:IF num=box(a) THE
N ok=0:a=9
50 NEXT:IF ok=0 THEN 40 ELSE LOCATE 19,13:PRINT MID$(ST
R$(num),2,2):IF num<10 THEN PRINT " " ELSE PRINT
60 i=0:WHILE box(i)<>0:i$="":WHILE i$<"1" OR i$>"9":WHI
LE i$="":i$=INKEY$:WEND:WEND:i=VAL(i$):WEND:box(i)=num:
LOCATE 4*i-1,8:PRINT MID$(STR$(num),2,2):done=done-1:WE
ND
70 score=9:FOR a=1 TO 8:IF box(a)>box(a+1) THEN score=s
core-1:box(a)=0
80 NEXT:IF score>hiscore THEN hiscore=score:IF score=9
THEN score=10:hiscore=score
90 LOCATE 15,17:PRINT"Score =":score:FOR a=1 TO 9:box(a
)=0:NEXT:LOCATE 6,19:PRINT"Press spacebar to play again
":WHILE INKEY$<>" ":WEND:WEND
100 LOCATE 4*a-2,b:PRINT t1c$:m$:m$:trc$:LOCATE 4*a-2,b
+1:PRINT s$;" " :s$:LOCATE 4*a-2,b+2:PRINT s$;" " :s$:
LOCATE 4*a-2,b+3:PRINT blc$:m$:m$:brc$:RETURN

```


IT'S SURPRISING THE TYPE OF PEOPLE
MAKING THE HEADLINES THESE DAYS.



STOP PRESS

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

'Stop Press' is the ideal publishing software solution for home enthusiasts, schools, societies and small businesses.

READ ALL ABOUT IT

Documents may be prepared using any of the superb selection of type faces (12 or more) supplied or alternatively a typeface of your own design.

Text can be entered from within 'Stop Press' or imported from your preferred word processor with fully automatic on-screen text formatting as the file loads.

Centering, ragged right, and literal justification are all available. There also also is full pixel resolution control over character size and spacing.

GRAPHIC DESIGN

As well as the ability to import digitised images there are outstanding facilities for drawing, spraying and painting using either the patterns supplied or your pattern designs, enabling you to produce

graphs, charts diagrams and pictures.

These can be pasted, cropped or re-sized to fit any layout, and for those finishing touches a fantastic zoom is available.

HOT OFF THE PRESSES

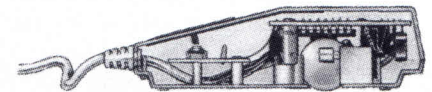
At anytime your pages can be previewed before being output to a wide range of Epson or compatible dot matrix printers.

AMX MOUSE

'Stop Press' can be used with a joystick or keyboard but the AMX MKIII Mouse gives you the control and flexibility which you would expect from the most accurate pointing available. Produced in Switzerland the AMX

Mouse has a unique patented design which includes high resolution

movement (D.P.I) and superior ball technology to ensure contact between the Mouse and the surface is constant at all times.



EXTRA! EXTRA!

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

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

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

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

BECOME A COPY-CAT!

Mike Turner continues his tutorial series on CP/M+ with emphasis on system management. If your computer needs some organising, read this!

Greetings again and welcome to this month's look at CP/M+. Last month we almost finished looking at automating commands using the SUBMIT utility. This month, I want to carry this a step further and go into a bit more detail on how to copy files automatically using both SUBMIT and PIP. This will lead us into the area of system management and we will look at how to allocate discs to various tasks. I will provide you with some sample command files which you can modify for your own use in starting up your system.

Most of the second part of this month's tutorial will be more relevant to PCW owners or 6128 owners with two disc drives. For those less fortunate, just sit back and enjoy the ride. Who knows, after reading this and seeing the possibilities you may decide to race out and buy a second drive.

Now to work. Suppose you wish to automatically copy certain files from your master CP/M+ disc to another disc. This can be extremely useful when making project or work discs as we will see shortly. You could of course make a copy of the master disc using the DISCKIT program and then laboriously erase all the unwanted files. An easier way is to write a command file to copy only those files you want. Once you have created this file and saved it to the disc you can use it

over and over again without having to remember all the commands and syntax.

At this point it is worth noting that the destination disc must be formatted or else the file copying will not work. Unlike DISCKIT, PIP will not format on the run as it copies files. For 6128 owners, please note that if you want the resulting disc to be auto starting, it must be a SYSTEM format disc.

"When working with CP/M+, it's important to be organised."

Say you only wanted to copy the CP/M+ operating system file and a few other utilities like SUBMIT, PALETTE and PIP, you could write a command file something like this:

```
; This command file will automatically
; copy CP/M+ and certain utility files
; onto a B drive disc. Please insert the
; destination disc into drive B
PIP
<B:=A:*.EMS
<B:=A:SUBMIT.COM
<B:=A:PALETTE.COM
<B:=A:PIP.COM
<
;The operation is now complete.
```

Most of the structure of this file will be familiar to you. The comment lines start with a semi-colon and the PIP command is invoked by simply giving the name of the program as you would if you were doing it yourself from the A> prompt. What is different is the use of the "<" symbol. This is used to fool the MONITOR into believing the input is coming from the keyboard, when it is in fact coming from the command file.

If you start PIP by yourself you will know that you get a "*" prompt and PIP then waits for instruction on what to copy and where to send the result. By using the "<" symbol you can get the command file to supply the input that you would otherwise have to give yourself with the keyboard. As you would know, you stop PIP by pressing the ENTER or RETURN key without issuing any copying commands. The last "<" in the file signifies a blank line and the pressing of the ENTER or RETURN key. Finally there is another comment line to let you know when the job is completed. You don't have to use all these comment lines if you don't want to. However, I like to keep things tidy and like the computer to tell me what it's up to during these automatic procedures. I feel more secure that way. Finally for those with only one disc drive, do not despair, as PIP will prompt you when to change discs during the copying process.

Now we get to the interesting part. This is where we start to tie together all the things we have learnt over the past three months and a bit more. What I want to talk to you about now is System Management. As I have mentioned in the past I like things neat and tidy and believe in getting the computer to do as much of the leg work as possible. Working with CP/M+, it is important to be organised. Whilst not as unfriendly as some would have you believe, most CP/M+ utilities can be unforgiving if wrong commands are typed in. Hence the value of using command files and

the amount of time I have devoted to them in the series thus far.

What we will now look at is the creation and use of a single START-OF-DAY disc, which you may use to start all of your various CP/M+ software packages. 6128 owners with one disc drive rejoice. I will start with a simple example for you. I will then look at some examples for PCW owners and explain how to make better use of the RAM DISC or drive M, as it is known.

The steps to take are simple, and they are as follows:

1. Make a duplicate copy of your CP/M+ master disc to use as the START-OF-DAY disc and label it appropriately.

2. Delete from that disc any files which you don't need. Do not be too ruthless. Just make sure that you have a few Kb left on the disc for a decent sized PROFILE.SUB file.

3. Design and save to the disc your PROFILE.SUB file. This is the file that will set up your computer, printer, screen etc. to your liking each time you start up the CP/M+ operating system.

4. Ensure that the last line of your PROFILE.SUB file is the command SUBMIT B:BOOT. The reasons for this will become clear in a moment.

5. Onto a data format disc place all the necessary files needed to run your CP/M+ package using the PIP utility. Additionally, you will need the SUBMIT.COM file and a file called BOOT.SUB which will start the package for you.

6. You create the BOOT.SUB file in the same way that you created your PROFILE.SUB using a text editor of some sort. The contents of this file will vary according to what commands you need to type in to start the particular program.

Confused? Well don't be. Let's look at a simple example. Suppose you wanted to automate the starting of a database package like dBASE II. You would follow the steps above and create a PROFILE.SUB file something like this:

```
; Automated Start Up procedures are
; now running. Please wait while the
```

```
; screen colours are set and the
; keyboard is set for word processing.
PALETTE 34,0
SETKEYS KEYS.WP
; You will shortly be asked to place a
; disc for B in the drive. Choose the
; application you wish to use. Insert the
; disc into the drive and follow the on
; screen prompts
SUBMIT B:BOOT
```

“...you don't have to remember all the commands to set up the computer...”

Onto the application disc you would copy all of your dBASE II files and SUBMIT.COM and then write the following BOOT.SUB file to the disc:

```
; You have selected to run dBASE II.
; Please wait while the program is
; loaded.
DBASE
```

So what is happening during the start up process? Well, the PROFILE.SUB file works as normal and does the same job every time. The last line tells the computer to go to the B drive and carry out the commands in a file called BOOT.SUB. The fact that you don't have a B drive doesn't matter. Just as PIP prompted you to insert a disc for B, so too will SUBMIT. Please note that you will also need a copy of SUBMIT on the disc for B otherwise the process will terminate.

So you can see that the same start of day disc can be used to start a number of different packages, each one on a separate disc. All you have to do is ensure that all the necessary files to run the particular package are on the disc for B and change the contents of the BOOT.SUB file to give the appropriate start up command for that package. For example, to start D.R. Draw your

BOOT.SUB file would contain the command DRAW to start that program. For WordStar the command WS would need to be in the BOOT.SUB file. This saves considerable disc space, as the CP/M+ operating system file doesn't have to be on the disc with the application files. It also allows you to set up the computer to your liking each time. Also you don't have to remember all the commands to set up the computer and start the package. This makes things a bit easier for children or other infrequent users of the computer, as all the hard yakka is done for them.

PCW8256 owners can follow the exact same procedure as that outlined above to start packages on their machine. The advantage PCW's have over the CPCs is the existence of a RAM disc or drive M. So, 8256 owners may wish to modify the BOOT.SUB file on their application disc to copy all the necessary files into the M drive. This will cause your application to run much faster, as you don't have to wait whilst the floppy disc drive is accessed.

However, there are three things to consider in this process. First, make sure that you can fit all the necessary files into the M drive. An 8256 only has some 110K or so to play with. Secondly, if you save data to the M drive during a work session, make sure that you copy it to a floppy disc before shutting down the computer or all will be lost. You can put the commands to do this into your BOOT.SUB file if you wish. As mentioned in a previous tutorial, SUBMIT remembers where it was up to before starting your program and will carry on from there when you exit from it. Lastly, the file PIP.COM must also be on your application disc to allow for the copying process.

Here is a simple example of a BOOT.SUB file for an 8256 machine. It is designed to copy all the files from the application disc to the M drive, start the program and then copy all the files back to the floppy

drive at the end of the session. Remember that PIP will overwrite previous versions of files with the same name, so you won't end up with a heap of .BAK files filling up your disc.

```

; You have selected a dBASE II
; application. Please wait while all the
; files are copied to the M drive.
PIP
<M:=B:*. *
<
; The program will now be started for
; you.
M:
DBASE STARTUP
; Please wait while your updated files
; are being copied back to the floppy
; drive.
PIP
<B:=M:*. *
<
A:
    
```

You will find a couple of interesting things about this file. Firstly you will note that all the PIP commands refer to copying files to and from drive B. This is because the PROFILE.SUB file asked the computer to SUBMIT B:BOOT as its last line. Remember that the computer now thinks that the A drive is called drive B. So the second thing to note in this command file is the A: command in the last line. This will cause the computer to prompt you to insert the disc for A into the drive and press any key to continue. Simply leave the application disc in place and press a key and you will see the system prompt is magically restored to the familiar A>. This tidies things up and returns the computer to its former state.

PCW 9512 owners may also follow a similar procedure to the 8256 owner with one major exception. With a 720k A drive and a 368k M drive to play with, there is plenty of room in which to store files without the need for a separate Start-of-Day disc. You will find enough room to store all your applications files and the necessary CP/M+ utility files all on the one

disc. So the procedure for automating a CP/M+ package on this machine is as follows:

1. Insert your working copy of the CP/M+ master disc into drive A: and copy all the necessary files onto the M drive using PIP.COM. Be sure to include the .EMS operating system file amongst those that you copy.

2. Then insert your application software into drive A and again using PIP.COM, copy all the necessary files into the M drive.

3. Now insert a blank formatted disc into the A drive and copy using PIP all the files from the M drive onto this disc. Design and save to the disc your PROFILE.SUB file. This is the file that will set up your computer, printer, screen etc. to your liking each time you start up the CP/M+ operating system.

***“All of a sudden
your system has
become extremely
friendly and
versatile.”***

4. Make sure that this PROFILE.SUB file contains all the necessary commands to copy files around between the drives and to start the package for you. Also make sure that the command SETDEF M:,A: appears in this file somewhere near the beginning. This will ensure that the default drive path is set correctly.

From now on all you have to do to use the package is to insert this disc into the A drive on starting the computer and everything will start automatically for you.

For PCW 8512 owners here is a suggested way of organising your discs. Make a dedicated Start-of-Day disc by copying the CP/M+ master disc onto a new disc and deleting those files from it that you won't need. Again don't be too savage in the deleting process. Then create a

PROFILE.SUB file that looks like this:

```

; Automated start up procedures are
; running. Please wait while the system
; is set up.
setdef m:, b:, a:
paper 11
set24x80
B:
submit boot
    
```

Note that you don't have to follow this format rigidly but I have found that it works well. You will note that I have set the screen to 24x80 mode as most CP/M+ applications operate in this mode. If you don't want this for a particular application, just insert a line in the BOOT.SUB file on your B drive disc containing the command SET24X80 OFF which will restore the screen to its normal state.

Next onto a blank formatted B drive disc, copy all the necessary applications files and make up a BOOT.SUB file to start the package. Here is an example of a BOOT.SUB file that I have put onto a B drive disc to start up the D.R. Draw package. You will note that it uses all the tricks of the trade that we have covered so far in this series. Have a look through it and see if you can find things of interest for your own use.

```

setkeys keys.wp
; This SUBMIT file will load and run DR
; Draw on a PCW 8512 or an 8256 with
; TWO disc drives (i.e. with the FD-2
; add on drive).
;
;
;
; This process will load DR Draw's
; overlays onto Drive M so that perform-
; ance is maximised. The first thing we
; do is to ERASE EVERYTHING ON
; DRIVE M. If you do not want to do
; that, hold down the ALT key and type
; C twice to quit, else type Y.
;
erase m:*. *
;
;
;
    
```



```

;
pip
<m:=*.prl
<m:=dr*.00*
<m:=dr*.txt
<
draw

```

Hopefully that has given you some ideas on how to automate your own system. Remember that the commands you use in either the PROFILE.SUB or BOOT.SUB files are entirely up to you. You make the computer do what you want it to. That's the beauty of using command files. One further point to ponder is the use of file attributes in all of this.

Remember we mentioned file attributes in an earlier article and talked about making files have a SYS attribute so that they could be accessed from any user area? Think of the possibilities of this when combined with the SETDEF com-

mand to set the default drive path. I know I have glossed over SETDEF a bit this month as time was running out on me. However, it is covered fairly well in the manual and in the HELP utility. I will cover it in a bit more detail next month.

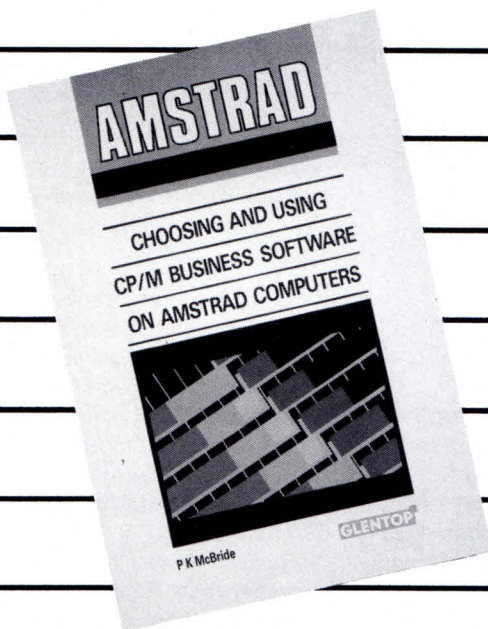
For now trust me when I say that if you set all the files on your Start-of-Day to a SYS attribute and then set the default drive path to work backwards through the drives to your boot drive (EG SETDEF M:,B:,A:) you will be able to access any of the programs on your Start-of-Day disc at any time. It won't matter whether you are in User 15 on Drive M; you will still be able to use all the options of DIR.COM which is located in User 0 of Drive A. All of a sudden your system has become extremely friendly and versatile. You don't have to remember on which disc things are located, nor do you have to have copies of all your utility programs on each

applications disc. You have beaten the system.

Well once again time and column space have run out for this month. I haven't included a Glossary this month as we haven't introduced any new terms of great significance. Please feel free to experiment with what you have learnt so far and see just how easy to use you can make your computer. Remember, if you work on dedicated project or work discs and leave your precious master discs unaltered you can do no harm. This goes not only for your system discs but also for those applications programs you own. Next month we will start to look at some of the other utility programs that came on your system disc and show you how to get the best out of them. We will also go into a bit more on system management and how to take proper back-ups of your previous data.

Until then, Happy Computing.

FOR BUSINESS MINDED CP/M USERS



The enormous success of the Amstrad PCW range of computers has led to the re-emergence of CP/M as a major operating system. This has allowed the huge base of CP/M software, which has been estimated to be in excess of 8,000 packages, to be made available to Amstrad computer users. However, choosing the right package can be difficult and choosing the wrong ones may be disastrous. This book aims to assist the CP/M business user in evaluating the various products available and thus come to the correct decision with the least amount of fuss and bother.

The topics covered include:

- Amstrad computer systems hardware
- Computers and the law
- Installing a computer system
- Choosing databases and cardfiles
- The spreadsheet market
- Payroll programs
- Software for the smaller business
- Accounting, including stock control
- Word processing and spell checking
- Graphics packages and utilities
- Training materials and courses
- Using basic CP/M and more

only
\$35.95
(+p.p.)

SMALL C INTERPRETER

Roger Williams this month brings us part three of his series on the C Interpreter found on PD disc #612/812.

If you have made any changes to SHELL.SCI since reading my last article, you may get slightly different results, or line numbers when following this month's modifications; make your own adjustments. If your copy of SHELL.SCI is exactly as we modified it last time, then all is okay. Load up SCI and type in the following program -

```
main()
{
  puts("Hello");
  puts("Goodbye");
}
```

Return to command mode and run the program by typing main (). You should get a single line of output which says

```
HelloGoodbye0
```

This certainly leaves a bit to be desired!

In "standard" C, the puts (.) routine is supposed to automatically add a newline character (CR/LF) to the end of the string; our SHELL is not doing this. In addition, we have that superfluous 0 character at the end of the line. Save this test program as PUTSTEST.SCI and then return to CP/M with the exit command.

The gets(.) command in the SHELL is also non-standard. If you were clever, you would have worked out that it was returning the number of characters in the input string, information which is potentially useful, but not understandable by

any "standard" version of C. Let's alter the shell to make puts(.) and gets(.) essentially "standard", and to prevent the superfluous output at the end of the last line. Load SHELL.SCI into ED, and list the first page (by now, you should be sufficiently familiar with ED that I do not have to give the specific commands). The puts (.) routine is on line 8, and should be changed to

```
puts(b){sys(b,1,3);putchar("\n")}
```

This change has two side-effects on the SHELL. The printf(...) routine must not add an automatic newline, so in line 15 we must replace put(b) with sys(b,1,3). The SCI system prompt on line 64 should also be changed to printf("> ").

In "standard" C, the gets(.) function is supposed to return a pointer to the first character in the string unless the string is empty, in which case it returns NULL (zero). Alter line 9 to

```
gets(b){if(sys(b,0,4)>0)return b;else return 0}
```

Now find and display line 96. This is the culprit which prints extra characters at the end of the last line (unless you are clever enough to finish with a newline character). It is included in the SHELL to give SCI the equivalent of BASIC's immediate mode. To make sure that the value printed by this line does not "corrupt" the last line of your program's output, insert a newline character (\n) at the beginning of the

format string, which should now look like "\n%d\n".

Use the e command to exit from ED with backup, and reload SCI with your new SHELL. Load PUTSTEST.SCI and list to make sure that the original program from this article is still there. Run this program again by typing main(). This time you should get

```
Hello
Goodbye
```

```
0
>
```

This is a considerable improvement on the previous trial, but still not perfect; that unnecessary zero is still there! SCI is still treating our call to main() as an immediate mode command. The cure is to include a run command which will cause the main () routine to be executed before the final (default) printf(.) command in the SHELL.

Back to ED; load SHELL.SCI and locate line 90. Enter lower-case insert mode, type 9 spaces and then

```
if (!strcmp(line,"run",3))
```

On the next line type 12 spaces and

```
{sys("main()",program,size,12); putchar
("\n");}
```

Exit with backup using the e command, and restart SCI. Load your PUTSTEST.SCI file and type run. Now you should see

```
Hello
Goodbye
```

```
>
```

At last we have a properly formatted output, but to obtain it you must forever-more call your controlling routine main (), and execute it by typing run. If SCI is still active, with PUTSTEST.SCI still loaded, first type run, and when execution has finished, type main (). See the difference?

Have you noticed that the sign-on message when SCI is first loaded is now totally out of date? With my help, you have made significant changes to the SHELL, so it is time to

"personalise" the sign-on message (if you have kept up with me so far, you will have no trouble working out how to do this; it is on line 60 in the SHELL). The next modification involves "major surgery," so it is time to make some backups. At least one should be on a separate disc, and you should also print out a copy of the current SHELL.SCI program as an insurance against a major catastrophe (such as disc drive failure).

"Standard" C has a #include command which enables frequently used routines to be stored in separate files, and to be combined with the working file at compile time. This is a very convenient labour saving device which SCI does not yet have. Most BASICs have a similar command which is called MERGE. Since SCI, like BASIC, is an interpreter, we will use the name merge (lower case since this is C). All that is necessary is to "trick" SCI into loading the files we wish to merge at the end of the current working file, instead of at the beginning of the program area. It is also necessary to protect against attempting to merge a non-existent file. While making these changes, we will also reduce the size of the program area to allow more working space for our programs.

Load SHELL.SCI into ED, locate line 47 and display a page on your screen. In lines 49 and 55 you will see that the program space is set at 16000 bytes, much too big for our needs. Change both these numbers to 10000 (even this is fairly extravagant!). To control the merging operation we need a new variable; alter line 53 so that it reads

```
int from, to, msize;
```

Now locate line 92 and enter lower case insert mode. Type 9 spaces and then

```
else if (!strcmp(line,"merge ",6))
```

On the next line type 12 spaces and then

```
{msize=sys(line+6,program+size-1,20);
```

Finally, on the third line type 15 spaces and then

```
if(msize>1) size=size+msize-1;}
```

Exit from insert mode with <ctrl>z, find line 90 and display a page on the screen. Double and triple check that you have entered these lines exactly as shown. When you are sure there are no errors, exit from ED with the e command.

Now for the big test. Start up SCI with your new SHELL. If the normal SCI > prompt appears, there is a good chance that everything is okay. If not, you have some correcting to do in SHELL.SCI. The PUTSTEST.SCI file should still be on your work disc, so we will use this to test our new merge command. First, load PUTSTEST.SCI with the usual load command, and list it to make sure it is really there. Now type

```
merge puttest.sci
```

When the > prompt reappears, type list; if all is well, two copies of the program should be in the program area. Try merging a non-existent file, by typing something like

```
merge notthere.sci
```

List to check that the program area has not been changed by this attempt. Now, type run; you will notice that SCI is not worried by the fact that two routines with the same name are present in its program area; it searches from top down, and executes the first version that it finds (to verify this, you could change one of the messages in the second version, and then type run to see what happens).

Time to make some more backups; this is my final version of SHELL.SCI. Within the limits of SCI, you are now in a position to embark on some serious C programming. To conclude this series of articles, I will present the beginnings of a library of string manipulation routines which can be merged with your own programs. When we modified the get(.) routine, we lost the non-standard way of obtaining the length of a string typed from the keyboard, and SCI does not have a routine for obtaining the length of a string. "Standard" C has the function strlen(s) to perform this

task, and this will be the first routine in our library. In C, strings are stored as an array of individual characters terminated by a NULL (ASCII zero). Also, the name of the string is a pointer to the first character which have subscript zero in the array. Use ED (or your favourite text editor) to create a file called STRINGS.LIB containing

```
#Length of a NULL terminated string
strlen(s)
char *s;
{ int i; i=0;
  while (s[i]!=0) i=i+1;
  return i;
}
```

Several comments need to be made about this routine. The first line uses SCI's non-standard comment identifier (#); I have not found a way to overcome this. In line 2, the function name is not preceded with an int type identifier which would be "normal" in "standard" C; SCI does not permit a type identifier for functions. In line 3, the parameter passed to the function is identified as a pointer. In line 4, the local variable is both defined and assigned its initial value; unlike BASIC, C does not preset numerical variables to zero.

To test this function, we need a controlling routine to call it, accept its returned value and display the results. Use your text editor to create a file called LENTEST.SCI as follows

```
# Test of strlen(s) function
main()
{ char string[80]; int n;
  n=1; # Must be non-zero to start
  while (n!=0)
  { printf("\nType a string - ");
    gets(string);
    n=strlen(string);
    printf("The string contains %d
characters\n",n);
  }
}
```

There is only one "tricky" bit in this routine - setting n to 1 (or any other non-zero value) in line 4 to make sure that the while loop

executes at least once. Notice that we are relying on strlen, and not gets, to detect a null string (pressing <cr> only) to terminate the test. Fire up SCI, load LENTEST.SCI, merge STRINGS.LIB, and type run. If all goes well, you will be invited to type a string and be told its length; the program will continue until it gets a string of length zero.

C does not have a string assignment statement. BASIC programmers who are used to writing statements like

```
LET S$="ABCDE"
```

initially find C rather "annoying" in this respect. "Standard" C has two string copying routines, one to copy up to a specified maximum number of characters from one character array to another, and a second to copy an entire string from one character array to another. Here are the SCI versions which you can add to your STRINGS.LIB file. Make up your own testing routine, and have fun experimenting with C. Next month we will have a look at FORTH, which is on the same disc as SCI.

```
# Copy up to n characters from one
# string to another.
# Similar to BASIC's
# DEST$=LEFT$(SOURCE$,N)
strncpy(dest,source,n)
  char *dest, *source; int n;
{
  int i; i=0;
  while (i<n)
  {
    dest[i]=source[i];
    if (source[i]==0) return dest;
    else i=i+1;
  }
  dest[n]=0; #Make sure copy is a
string
  return dest;
}

# Copy one string to another
# Similar to BASIC's
# DEST$=SOURCE$ or
# DEST$="ABCDE"
strcpy(dest,source)
  char *dest, *source;
  {
    return strncpy(dest,source,strlen
(source));
  }
```

'DUMPED' AT THE C SIDE

Perhaps we should be for failing to properly check Roger Williams' article which appeared on Page 31 of the July issue. The text supplied by Roger was correct, but by the time it reached our printed page errors had emerged and unforgivably went unnoticed.

We apologise to Roger Williams and to any of our readers who were inconvenienced.

To make amends, we have reprinted the sections containing the errors and identified (in bold type) the areas which require amendments.

Page 31 - column 1/2

```
int i,j; char string[81];
gets(string);
sscanf(string," %d %d",&i,&j);
```

Page 31 - column 2

... display the first page with #a0p<cr>. Lines 16 and 17 show the code for sscanf(...). **Move to line 18 and insert the new code for scanf(...) by typing**

```
18:i<cr>
scanf(a0,a1,a2,a3,a4,a5,a6,a7,a8)<cr>
  {char b[128]; gets(b);<cr>
  return sys(b,a0,a1,a2,a3,a4,a5,a6,
a7,a8,6)<cr>
<ctrl-z>
b0p<cr>
```

Page 31 - column 3

Now enter 12 spaces and then type

```
{size=1; program[0]=90}<cr>
```

Page 31 - column 3

```
main()
{
  int i,j;
  puts("Enter two integers, separated
by a space\n");
  scanf(" %d %d",&i,&j);
  printf("The two numbers typed
were %d and %d\n",i,j);
}
```

Page 32 - column 2

```
while(k!=2)
  {puts("Redo from start\n");
  k=scanf(" %d %d",&i,&j);}
```

The complete program now looks like

```
main ()
{
  int i,j,k;
  puts("Enter two integers separated
by a space\n");
  k=scanf(" %d %d",&i,&j);
  while(k!=2)
    {puts("Redo from start\n");
    k=scanf(" %d %d",&i,&j);}
  printf("The numbers typed were %d
and %d\n",i,j);
}
```

Page 32 - column 2

A much better version is as follows:-

```
main()
{
  int i,j;
  puts("Enter two integers separated by
a space\n");
  while(scanf(" %d %d",&i,&j)!=2)
    puts("Redo from start\n");
  printf("The numbers typed were %d
and %d\n",i,j);
}
```

Page 32 - column 3

```
i=1;
while(i<=21)
  {...;
  i=i+2;}
```

Page 33 - column 1

...type in and run this program :-

```
main()
{
  int i;
  printf("Type an integer : ");
  scanf("%d",&i);
  printf("The number is %d",i);
}
```

Why is the number apparently multiplied by 10?

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

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

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

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

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

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

Note that a document can only use a single style.

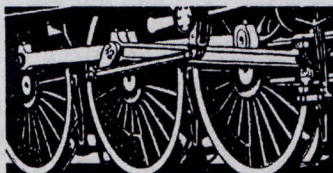
LocoFont Set1 & 2 are available from The Amstrad User at \$75.00 and \$65.00 respectively.

LocoScript2 - New Edition!

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

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

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



LOCOMOTIVE SOFTWARE

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

LocoFont - Set 1

Definite

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

Modern

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

Roman

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

Capitals

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

Script

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

Deco

Avocado Pear	£1.95
Drawn Cocktail	£2.50
Palé	£1.95
Cantelope Melon	£1.95

BCDE abcde aByc ABfAE aBerr aBerr

Copper Plate

You are invited to join in with another of Ted's housewarming parties. This time if you want anything other than hotdogs, crisps and beer then...
ABCDE abcde aByc ABfAE aBerr ABff

Finesse

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

Standard

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

LocoFont - Set 2

Penman

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

Old English

The Old Antique Shop
27 The Square, West Street
Somerton, Somerset
TA23 4EW
ABCDE abcde

Mini 15/17

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

Mini PS

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

Mail your orders to:

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

Phone your firm orders to:
(03) 233 9661

Bankcard, Mastercard or Visa accepted.

FILL UP ON ALGORITHMS

With his introductory series behind him, Gary Koh now takes us deeper into the world of programming with a new series on fill algorithms

Last month was the last part of my series on algorithms. This month we are going to start looking at fill algorithms in the start of a new four part series. I know that there have been machine code fill routines given in the past. The thing is that these are just listings, they give you no explanations on what they do in detail. This is where this follow up series on algorithms comes in. I have shown you what algorithms are, and how to write them. Now it is time to have a look at their practical applications, in this case, fill algorithms.

Before I proceed I firstly have to give you an update on writing algorithms. The method of writing pseudocode I used was taken out of a certain book, to ensure some sort of standard. That way, if something was wrong I could blame the book. It so happens that a second edition of the book has appeared, and it adopts a different way of writing pseudocode.

This new method looks much less like Pascal than the other one, which ought to make a few of you Basic fans more happy. It basically involves getting rid of all the Begins and Ends, which I myself thought were a bit cumbersome and instead use End-If, or something looking similar to that, to mark the end of a control construct.

Since you can see the end of a control construct more easily, you can dispense with indentations if you want to. I myself would suggest that you stick with indentations, but reduce the severity of them. This series will be using the previous method of writing pseudocode, but any future articles after this involving algorithms and pseudocode will use the new way. As an example the following pseudocode listing is a re-hash of the word-split algorithm done in the new way.

WORD-SPLIT ALGORITHM

```
word.pointer=1
message$=string to be printed
For string.pointer=1 to length of message$ Do
  If character pointed to by string.pointer="@ " Then go onto
```

```
the next line
  Else if character pointed to by string.pointer=" " Then
    word.segment$=(word.pointer<=message$<=string.
pointer)
    If word.segment$ will not fit onto the screen Then
      Go onto next line
      Print word.segment$ onto the screen
    Else Print word.segment$ next to the previous word
      word.pointer=string.pointer+2
    End-if
  End-if
End-for
```

This short four part series intends to fully explain how fill algorithms work and the mechanics behind them. To start with we will look at a simple shape fill algorithm, then go on to a proper flood fill algorithm and finally finish with a pattern fill algorithm, that is, if I can get one going. Just keep your fingers crossed and hope that it works out.

UNDERSTANDING THE TECHNIQUE

Fill algorithms are in general hard to produce, especially one which is absolutely airtight and fast. With a normal flood fill you would scan the entire area that is supposed to be filled bit by bit. A fill algorithm takes an area that is in one color, bounded by areas of different colors and fills that with a color your specify. The problems arise when you try to memorise bits of a complicated shape. You can make a sort of simple algorithm that is accurate, but it tends to be slow. Or you can make a fast algorithm, but then it tends to be very complicated.

Pattern fills, where instead of filling an area with color you fill it with a pattern or stipple, are more complex and involved. With pattern fills you have to plot the pixel depending on what the pattern is. In addition there is also the problem of how to scan a complex area to be filled.

Figure 1 shows an area of pixels to illustrate the problem. The fill started off somewhere far away from it and now the area between section A and section B needs to be filled still. The black areas are the sections that did not get filled and the greyish boxes are the pixels that have been filled. The problem here is that in the pattern there are gaps that are bigger than one pixel. How would the fill algorithm therefore stop itself from thinking that these gaps are another part of the area to be filled?

There are many other problems with fills as we will see later but to start with we will look at the simple fill algorithm. This algorithm does not have any storage for filling in complicated shapes and does a simple flood fill. The only shapes it will successfully fill are those shapes which have straight enclosed outlines like a triangle, circle or a polygon. The following listing is a pseudocode description of the flood fill.

SIMPLE SHAPE FILL ALGORITHM

```

pixwid=width of each pixel
pencol=pen color to fill the area in
col=colour of the starting pixel
If the colour of the pixel we are starting at=pencol then do not
continue
side=-pixwid
sidex=x location of pixel on the right side of the pixel we are on
sidey=y location of the pixel we are on
x=sidex-side
y=sidey
For sndcnt=1 to 2 Do
  Begin
    storex=-2
    storey=2
    While storex<>0 and we are not off the screen Do
      Begin
        If pixel on top of the one we are on=col Then
          Do
            Begin
              test=col
              While test=col Do
                Begin
                  Move up to the pixel on top of
the one we are on
                  test=colour of the pixel we are on
                End
                Move down by one pixel
              End
              topx=x location of pixel we are on
              topy=y location of pixel we are on
              test=col
              While test=col Do
                Begin
                  Move down one pixel
                  test=colour of the pixel we are on
                  If storex<>0 And the pixel we are on
+pixwid=col
are on +pixwid
we are on
                End
                storex=x location of pixel we
                storey=y location of the pixel
              End
            End
            Draw a line from locations (topx,topy) to the
current pixel we are on
            If storex<>0 then move to the pixel at location
(storex,storey) Else
              storey=0
              storex=0
            End
            side=pixwid
            Move to pixel at location (storex,storey)
          End
        End
      End
    End
  End

```

The first thing this algorithm does is to check if the

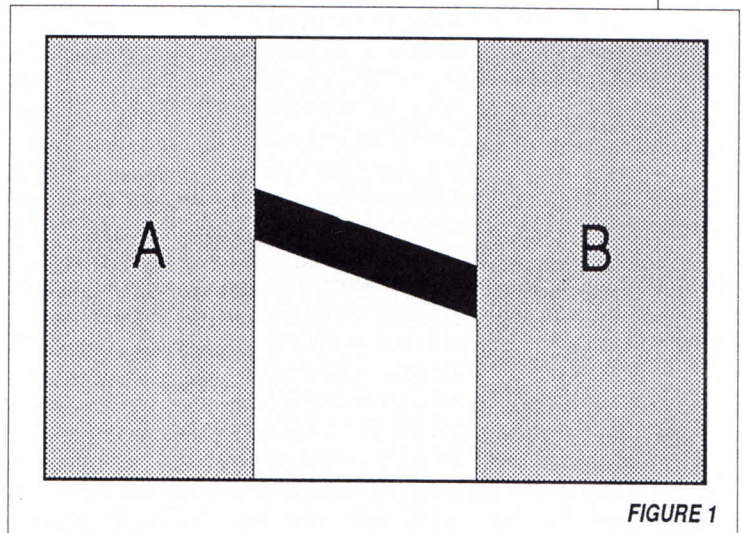
pixel it is starting on is the same color as the color it is supposed to fill in. If this is the case then the algorithm exits. This fill works in an up and down fashion instead of the usual left to right you normally see. There is a reason for this, but it is a bit involved to get into this month.

There are several nested Whiles and a For-next in there. The For-next controls which side of the location where we start at gets to be filled. On the first pass through it, the left side is filled, on the second pass it is the right side that gets filled.

The first while controls the filling process, it only exits if it is satisfied that there is no more to be filled on that side, or if we are going to go off the screen. Then comes the actual process.

Firstly it tests the pixel on top of the one we start at. If that is the same color as col then there must be at least one pixel of empty space above that pixel so it goes on to another while loop that searches upward until it hits a barrier or until it goes off the screen.

The next while loop starts from that topmost position and moves downwards until it hits another barrier. As it goes down it checks either the left or right pixel to the one we are checking, depending on which side we are on, and if it happens to be the same color as col it stores the location of it in storex, storey. It only stores it in storex, storey if there is no value in there, so we do not get multiple values of storex, storey.



Once this loop exists then a vertical line is drawn from topx, topy to the pixel we are on. An If-then then checks if any values are stored in storex, storey. If it is, then there must be more to be filled and it transfers the location pointed to by storex, storey into topx, topy. If not then, there is no more to be filled and it zeroes the value in storey, which in turn causes the While loop responsible for filling an entire side to exit.

At the end of the main while loop the value for side is reversed, so that the fill starts on the other side and it

moves to the pixel marked by `sidex`, `sidey`. Then it starts all over again.

Listing 1 gives a Basic listing of the above pseudocode listing. This looks a bit different from the pseudocode listing, it even has some extra variables. The differences are due to taking into account the nitty gritty of the graphics commands on the computer.

In the listing you will see occurrences of `storex=-1` instead of `storex=0`. This particular instruction is meant to "zero" that variable so that it acts as a kind of flag to signify, in the case of the `If` in line 400, that there is nothing in `storex` and so it can store something there. I have to use -1 instead of 0 because in normal circumstances (that is, you have not been fooling around with origin) the lowest co-ordinate on the screen is 0, so to go off the screen you would need a value of -1.

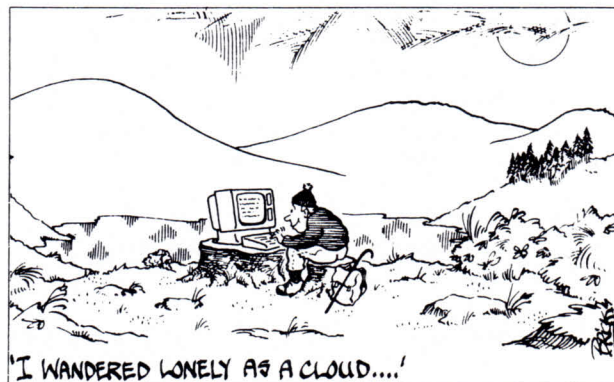
The algorithm tries to "keep on top of things", by storing the highest position of the co-ordinates. In other words, whenever possible, it starts the search downwards at the highest possible point. This means that lines 400 and 410 carry the bulk of the work. To improve speed I have tried to keep these lines as short and compact as possible. The only other area that requires speed is the bit in line 380 that searches upwards. As the rest of the routine is only required once in every up and down search they do not need to be compact because they are not used very much.

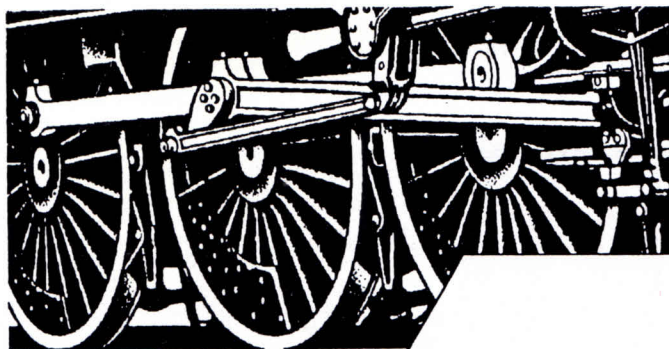
To call the routine you need to set `pencil` to the color you want the fill and `pixmap` to the amount of co-ordinates that each pixel occupies. This translates to a value of 4 for mode 0, 2 for mode 1 and 1 for mode 2. To set the area to be filled use `Move`. The actual routine itself occupies lines 300 to 490. To use it erase the demo routine, which is at lines 280 and lower. Since there are 4 times as many pixels in mode 2 than in mode 0, filling is roughly 4 times faster because regardless of the size of the pixel it takes the same amount of time to plot or test it.

The reason for this is somewhat complex, and has to do a lot with masking, machine code and the screen map. Now, it sounds absurd, but it takes the same amount of time to plot a single pixel onto the screen in all the modes, regardless of the size of the pixel. This is due in part to the process that has to be done in order to plot a pixel onto the screen. A pixel only occupies less than a byte. At the most, like in mode 0, it only occupies half a byte. Since it occupies less room than a byte, to plot a pixel requires a complex masking process which takes the same time in all modes. This may seem quite unfair, but there is no way out of this. So if you want a fast fill, you will have to stick to mode 0.

```
100 ' Fill demc
110 '
120 pencil=1
130 pixmap=1:MODE 2:GOSUB 180
140 pixmap=2:MODE 1:GOSUB 180
```

```
150 pixmap=4:MODE 0:GOSUB 180
160 END
170 ' Draw and fill shapes
180 MOVE 200,200:DRAW 50,0,3:DRAW 0,-50:DRAW -50,0:DRAW 0,50
190 MOVE 210,180:GOSUB 310
200 DEG:FOR a=1 TO 360 STEP 1:PLOT 100+40*COS(a),100-40*SIN(a),3:NEXT
210 MOVE 110,105:GOSUB 310
220 MOVE 80,240:DRAW -30,46,3:DRAW 0,-100:DRAW 30,46:DRAW 30,-46:DRAW 0,100:DRAW -30,-46
230 MOVE 80,236:GOSUB 310
240 MOVE 350,200:DRAW 50,50,3:DRAW 0,-100:DRAW -50,50
250 MOVE 360,200:GOSUB 310
260 LOCATE 1,24:PRINT"Press any key to continue"
270 WHILE INKEY$="" :WEND
280 RETURN
300 ' Simple shape fill routine
310 col=TESTR(0,0):IF col=pencil THEN RETURN
320 side=pixmap
330 sidex=XPOS-side:sidey=YPOS
340 x=XPOS:y=YPOS
350 FOR sdcnt=1 TO 2
360 storex=-2:storey=2
370 WHILE storey<-2 AND x>pixmap AND x<640
380 IF TEST(x,y+2)=col THEN MOVER 0,-2:WHILE TESTR(0,2)=col:WEND:MOVER 0,-2:x=XPOS:y=YPOS
390 topx=x:topy=y
400 WHILE TEST(x,y)=col:IF storex=-2 THEN IF TEST(x+side,y)=col THEN storex=x+side:storey=y
410 y=y-2:WEND
420 MOVE topx,topy:DRAW x,y+2,pencil
430 IF storex<-2 THEN x=storex:y=storey ELSE storey=-2
440 storex=-2
450 WEND
460 side=pixmap
470 MOVE sidex,sidey-2:x=XPOS:y=YPOS
480 NEXT
490 RETURN
```





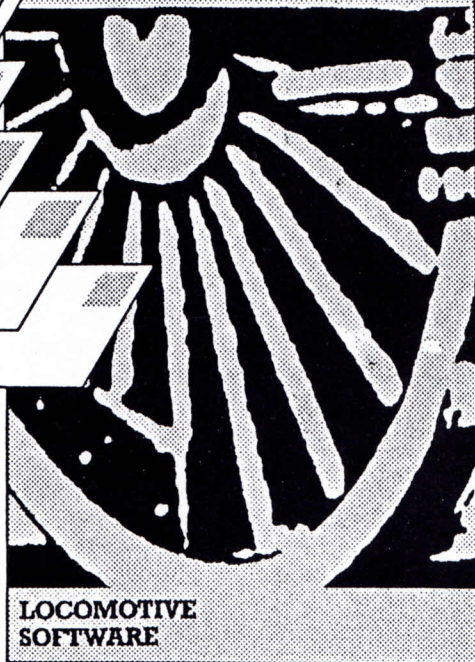
LocoMail for LocoScript 2

Mr J Smith
24 Larches Rise
New Westering
Wessex

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

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

LocoMail
Mail Merge for LocoScript 2



LOCOMOTIVE
SOFTWARE

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

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

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

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

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

LOCOSCRIPT LAYOUTS

Layouts are one of LocoScript's most powerful features - they control how documents look. They are also one of the areas where some big changes have been made in LocoScript 2.

Put simply, Layouts describe how your text should be laid out on the page. You can use one Layout for the whole document, to give it a uniform look, so use several Layouts to add some variety. So for example, a business letter might just use one Layout, whereas a book or an article might use several, say to lay out literary quotations or scientific formulae in a different way to the narrative text.

Each Layout in LocoScript is a complete description of how text should be laid out. The simple parts of a Layout are much the same as the settings you make on a type-

writer to control the look of the text. The other settings of the Layout come from the fact that a word processor is far more powerful than a typewriter.

LAYOUTS IN A DOCUMENT

In many cases, a document just requires all these details to be defined once - a set of rules to apply to the whole document.

The initial set of rules you work with are supplied by LocoScript. LocoScript takes these from the template for the group that you create the document in or, if there is no template, it gives you its very

simple default Layout which gives you margins an inch in from either side of A4 paper.

Naturally, the details of this Layout can be changed, so that your document has the margins, tabs, line spacing etc. that you want. But before we describe how this can be changed, we will look at why you might want more than just this Layout in a document.

LocoScript lets you specify further Layouts so that you can use a different set of rules to lay out the text in one or more parts of the document. The classic example of text requiring a different Layout is a table for which you need a particular set of tabs that you are unlikely to be using in the rest of the document.

In the main, the differences between the initial layout and these further Layouts will be ones of margin and tab position, rather than simple changes of Character Pitch, Line Spacing, CR Extra Spacing etc. which can be achieved straightforwardly using (Pitch), (LSpace) and (CR) codes.

Where you want to start using this different definition, you insert a (Layout) code containing all the new Layout details. Where you want to change again to another set of rules, you insert another (Layout) code - this one containing the next set of rules you want to apply.

These (Layout) codes can be inserted by using the New Layout option in the f2 Layout menu. You position the Text cursor where you want to move over to using the new Layout; press f2 to display the Layout menu; check that the Menu cursor is on New Layout (the top option); and press ENTER.

This puts you into the Layout Editor so that you can set up the details of the Layout you want. As you're likely to change just a few details, LocoScript starts by giving you the details currently in force at the Text cursor. When you leave the Layout Editor and return to the document, LocoScript inserts the (Layout) code you need - complete with all the details of this new

Using the Layout Editor

Whether you are adding a new Layout, or changing an existing one, you'll use the Layout Editor. This gives you all the tools you need to change the elements of your Layout. Page 8 shows the Layout Editor's display and the items you can change.

Typically, you'll just want to change the Margins, Tabs and Character Pitch. You can change these through the f1, f3 and f4 menus, or by using the following special shortcuts. To move a margin, position the cursor on the margin and press + or - to move it right or left. To insert a tab, position the cursor where you want to set the

tab and press+ repeatedly until the correct sort of tab symbol is shown. You can also use the Space Bar to move quickly to the Right Margin and TAB to move to the next tab.

If you want to change the setting of Justify, Italic, Zero, Decimal or Scale Pitch, you will need to use the f8 Options menu. The Scale Pitch is one element of the Layout you should be careful about. It is one of LocoScript 2's new features. We recommend that you set the scale pitch to 12 if you are using proportional spacing or a Character Pitch of 12; otherwise set it to 10. Once you've made sure that it is set to a suitable value, you should not need to change it again.

Finish using the Layout Editor by pressing EXIT.

Layout definition.

At each point you want to change the Layout, you need a (Layout) code. It is perfectly possible to set up each of these by taking the New Layout route described above. But that is taking a harder route than is necessary when you are using the same few Layouts throughout the document, and especially when you also want to use these Layouts in more than one document. Setting up the details afresh via New Layout and the Layout editor at each point you want to change the layout is a waste of effort.

USING THE STOCK LAYOUTS

LocoScript 2 makes setting up identical layouts easy by keeping a stock of standard Layouts for you to copy - the Stock Layouts. These are stored as part of the Document Set-up and when you want a Layout code with a particular set of characteristics, you create a New Layout that is a copy of the Stock Layout that has this set of characteristics.

There are two ways of copying a Stock Layout. You can either use the New Layout option as before but, when you go into the Layout Editor, you simply press f5 to display the Stock menu, move the Menu cursor to the Stock Layout you want as the pattern and press ENTER. Then when you return to the document, the (Layout) code that is inserted contains all the same details as the Stock Layout you selected - i.e. it is an exact copy.

The other, slicker, way of copying the details into a new (Layout) code is to press + and then type LT followed by the number of the Stock Layout you want to copy. So for example if you knew that the set of details you wanted were set up in Stock Layout 2, you could insert the new (Layout) code by typing +LT2.

Two of these Stock Layouts have a special use. As we explained earlier, LocoScript starts by using a supplied set of Layout rules which is stored in the Document Set-up. The Layout rules it uses are the ones in Stock Layout 1. LocoScript also

Starting with the Layout you want

The way to have the Layout you want in a document when it is created is to use LocoScript's Template facility.

A template is a LocoScript document that you set up to act as a model for the real documents you produce.

When you create a document, LocoScript first tries to find a Template to copy. That is a document called TEMPLATE.STD in the group you are using. (If it can't find one it looks in group 0 of the same disc, and if it still can't find one it looks on drive M where it will have placed copies of templates from your Start-of-Day disc. If LocoScript can't find a Template anywhere, it invents a very basic one for you).

If you set up Template(s) with the correct Layout, then all your documents will have this Layout. So first create your Template!

To create a Template, move the group cursor to the group you want to work with (or group 0 for the Template to apply to all groups on that disc), and

press C. When LocoScript gives you the document name menu, type TEMPLATE .STD and press ENTER. Now you need to make this document the model you want for all future documents, both in its Layout and in its initial text. For now, we'll assume that we don't want any text and just set up the Layout. (If you have been given any text, use the Cut facility to delete it.) That just leaves the Layout to be set up.

LocoScript will have already given you a Layout, either one from the Template it used or the default if there wasn't a Template to copy. To set up the Layout you require, simply change this Layout to have the margins, tabs etc. that you want - for details see Changing a Layout.

When you have set the Layout to what you want, you have created a Template which doesn't have any text in it, but is set up so that any text will be laid out according to the rules you've just made. Press EXIT ENTER to save the Template permanently.

From now on, all the documents you create in that group (or disc if you used the group 0 option) will use your new Layout. If later you decide that you need to change your standard layout in any way, simply Edit the TEMPLATE.STD document and change the Layout.

needs a Layout ready to use for the documents Headers and Footers - the Pagination text: in this case it uses Stock Layout O. Whenever you want to use the initial Layout again further down the document, you simply need to insert a new (Layout) code that's a copy of Stock Layout 1 - by typing + LT1.

(LocoScript '1' used one Layout - the Base Layout - for both of these jobs, which had the effect that any changes made to the Base Layout for the benefit of the document were also made to the Header and Footer text. This had the disadvantage that if you set Line Spacing 2 so that your document was double spaced, you instantly doubled the number of lines of Header and Footer text you had, which could push the document text down the page and the Footer onto the next page-and

you had to be quite alert to spot what had gone wrong!)

CHANGING LAYOUTS

Neither the Layouts described by the (Layout) codes nor the Stock Layouts are fixed. Both can be changed - but in different ways and with different results.

The Layouts used in the document itself can be changed by using the Change Layout option in the f2 Layout menu. The Layout this changes is the one that affects the part of the document that the Text cursor is in; no other (Layout) code either above or below it in the document nor any Stock Layout it was copied from is changed.

For example, suppose you were working on a document in which the first (Layout) code was created by copying Stock Layout 3 and that

The effect of Layout codes on the document

To understand the real effect of (Layout) codes, it's best to understand how LocoScript works out how to lay out a document from the top to the bottom.

LocoScript works by starting with the prescription for a Layout given by Stock Layout 1 and then modifying this prescription according to the word processing codes that are inserted in the document itself. Starting from the top of the document, each of these codes is taken in sequence and the changes the code makes to the Layout rules are applied, giving a new set of rules. For example, a (+Italic) code tells LocoScript to ensure that the rules now include the rule that characters should be given the Italic styling. If the rules already included Italic styling, then of course the (+Italic) code has no obvious effect. Similarly, a (-Italic) code tells LocoScript to ensure that the rules include that characters should be given the Italic styling.

Thus moving through the document sees a succession of changes to the rules LocoScript is working to caused by word-processing codes, each change resulting in a new set of rules which is itself changed by the next code in the document.

The rules that apply at any point in the document are the result of all the rule changes up to and including the preceding word-processing code. These rules apply to all text between that code and the next code that will change it: any text inserted here will also be laid out according to these rules.

Inserting text higher up the document will move this text, possibly changing where the line breaks are but it has no effect on the rules that are used in laying out this text. Inserting a word-processing code somewhere higher up the document, however, can potentially change the rules applied to every piece of text

that follows it. These changes are sorted out and the text laid out afresh as you move your working position down the document, with final adjustments being made just before the document is saved on disc.

This way of working enables LocoScript to respond to changes made higher up the document without losing any of the positioning instructions and styling instructions you have lower down the document. A change of Character Pitch, for example, in LocoScript won't change the right margin of your text or lose the fact that you want a paragraph indented. In many other word-processing systems, it will!

The change to a different Layout is similarly a change to the current set of rules, but whereas each (Italic), (Pitch), (LSpace) etc. code just changes one rule, the (Layout) code resets the lot. The rules in use immediately after a (Layout) code match the details in the (Layout) code - with the one exception that the new margin positions and tabs only come into effect on the next line because there is no sensible way in which these can change in the middle of a line.

One effect of this is that the preceding 'history' or word-processing codes is effectively forgotten. That is why you have, for example, to insert another (+Italic) code after the (Layout) code if you want to continue using Italic characters but Italic is not defined in the Layout.

The other important effect is that you have to put in another (Layout) code when you want to return to the original set of Layout rules. Until it processes past such a code, LocoScript will continue to lay out the text according to the rules set out in the last Layout code, with any modifications made by subsequent word-processing codes.

The key to returning to the original Layout is to remember that the original Layout is defined by Stock Layout 1, so to return to this Layout, you just need to put in a (Layout) code by typing +LT1.

copies of this code had been used in elsewhere in the document. To change the Layout set up by the first (Layout) code in a document, you move the Text cursor to some

position below this (Layout) code but before any other (Layout) codes; press f2 to bring the Layout menu onto the screen; move the Menu cursor to Change Layout; and press

ENTER. You are then put into the Layout Editor, just as you are after selecting the New Layout option, and you have the same array of tools to help you make the changes you require. (But don't change the Scale Pitch at this stage unless you are proposing to change the Scale Pitch in all the Layouts. Having Layouts with different Scale Pitches in the same document is just confusing).

When you return to the document, the details associated with this particular (Layout) code and only this (Layout) code have been changed. The copies of this (Layout) code that were used in other parts of the document won't have been touched: (Layout) codes are quite independent once they've been inserted.

Note particularly that your changes haven't affected the Stock Layout from which the (Layout) code was copied - Stock Layout 3 in this instance. The (Layout) code was simply a copy of the Stock Layout as it was when the code was created and so shares the same name, but is otherwise quite independent.

If the Text cursor is between the beginning of the document and the first (Layout) code (if any) when you use the Change Layout option, the Layout you change is the document's initial Layout. Changing this Layout has all the same feel to it as changing a (Layout) code - the only obvious difference is that there is no (Layout) code involved.

But, in fact, there is another much more important difference. As we explained earlier, the initial Layout is Stock Layout 1, so in changing the initial Layout you actually change Stock Layout 1 itself. Similarly, when you are working on Header and Footer text on the Pagination Screen and select the Change Layout option from that screen's Layout menu, you actually change Stock Layout 0.

Of course, this also means that any change that you make to Stock Layout 0 changes how the Header and Footer text is laid out, and any change to Stock Layout 1 changes

the initial Layout used in the document itself.

If your document uses the same Layout throughout, then there's no need to think of Changing the Layout as doing anything other than changing the Layout you are using - the one for the document when you are displaying the document; the one for the Header and Footer text when you are displaying the Header and Footer text.

But if you have carefully set up the Stock Layouts in your template to have particular jobs, it may well be worth remembering that changes that you made to the initial document Layout are made to Stock Layout 1 and that changes made to the Header and Footer Layout are made to Stock Layout 0.

SETTING UP STOCK LAYOUTS

Every document you create has ten Stock Layouts stores in its Document Set-up- Stock Layouts 0...9. If these are to be any use to you, they have to be set up as you want them. Stock Layouts set up

wrongly are no more use than no Stock Layouts at all.

Typically, setting up Stock Layouts is a job to do when you are preparing a template document (TEMPLATE.STD) for a group. The Stock Layouts you set up in the template are automatically the Stock Layouts set up in the Document Set-up of any new document you create using this template. So if you think out the basic Layouts you need for the documents in this group and set these up as the Stock Layouts in the template, these will be quickly and easily to hand when you're preparing the documents themselves.

To set up the Stock Layouts, you go into Document Set-up (by selecting the Document Set-up option from the f1 Actions menu);press f2 to display the Layout menu; move the Menu cursor to Change Stock Layouts; and press ENTER. LocoScript then displays a menu of the Stock Layouts.

Move the Menu cursor (and the diamond) to the Stock Layout you want to change, press ENTER and

you are put into the Layout Editor so that you can set up the details you want. As you do this, remember to set the same Scale Pitch in every Layout and to give each Layout a suitable descriptive name.

We recommend setting up names for the Stock Layouts at this stage for two reasons:

-Firstly, all the menus that list the Stock Layouts offer you a list of their names. Picking out the one you want when it has an appropriate name is very much easier than picking out Layout n.

-Secondly, giving copies of your Stock Layouts a consistent set of names is very much harder once you have started using the template and inserting (Layout) codes in your documents.

When you press EXIT to leave the Layout Editor, you return to the menu of Stock Layouts with the cursor picking out the Stock Layout you have just changed. This makes it very easy to just work down the list of Stock Layout changing them one by one.

KNOW LOCOSCRIPT, LOCOSPELL AND LOCOMAIL BACKWARDS!



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

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

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

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

JUST **\$32.95** (+P.P.)

CLOSE-UP ON THE PC20

The baby of the Amstrad PC family is here. The PC20 breaks the mould of conformity as Sugar goes budget, but does this machine live up to expectations? Joseph Elkhorne decides...

Beat the drum, ring the bell, sound the whistle! Here, at long last, and NO thanks to Amstrad is a hands-on review of the PC-20 (or Sinclair PC-200, which appears on the screen at start-up. Apparently, this was a brainchild of Uncle Clive).

Whatever its origin or name, this is the cheapest way I know of to get into Big Blue-style IBM computing. Firstly, I am impressed by the machine, overall. I've worked with XTs and ATs, 286s, 386s, the real thing and clones. Some are better than others, and compatibility is always a swear word in the computer industry.

EXTERNALS

The PC-20 is a self-contained computer in a low profile plastic housing. It's a nice looking unit, with a 102 key enhanced keyboard. The "lock" keys (caps, scroll, num) all have green indicators.

On the left-hand side of the top are more indicators for Power On, and two disc drives. Built into the right-hand side of the computer is a 3.5" floppy drive. This 720K unit is sometimes referred to as "2nd generation industry standard". Again, on the left-hand side, one finds the power switch and a volume control for the internal speaker.

The back panel provides a serial port, parallel port - both D-25 types - D-9 connector for video monitor,

RCA jack for RF output, a "Centronics" style connector for an external floppy disc drive, and a power connection for same. An outboard drive can be either 3.5" 750K or 5.25" 360K format.

"Try looking at the discount house adverts and see if you could put together a computer out of bits and pieces for less than Amstrad sell one."

Accessible under the keyboard from the front are two additional connectors for the mouse - which is supplied with the system - and joystick. Makers of more expensive machines consider some of these features as additional cost options.

Lastly, part of the top flips up, and is detachable to allow access to the two expansion slots. These are full size, XT 8-bit style slots. Also, a small panel on the right slides out, if necessary to permit the expansion card to extend out of the machine. As this is a low-profile unit, this

may mean that additions protrude permanently. It's a small drawback, in light of the modest cost of this IBM compatible machine.

Anything you can do to/with a "real" MS-DOS machine is possible with the PC-20, I reckon. Want to add a hard disc card for REAL mass storage? Yes, we can do that. Modem card? Why not?? Expanded memory? Just add a RAM card.

INTERNALS

The heart of the computer is an 8086 running at 8MHz. Onboard memory is 512K. The colour display option is CGA, and that function is built-in, rather than an optional extra. Since the PC-20 runs faster than an "industry standard" machine, there is a SLOW command which forces it to emulate a 4.77MHz 8088 type.

Although the internal buss is faster than your average bear, the expansion slots run at 4 MHz. There's also a socket on the PCB for an 8087 maths co-processor, should you ever need to fit one.

Completing the package, there are two manuals - a User Manual and MS-DOS Guide, and a Microsoft GW-Basic User Guide - and two 3.5" discs. I also found an RCA-to-Belling Lee cable for TV use, though this was not mentioned in the book.

The discs comprise the MS-DOS 3.3 operating system with GW-Basic, and GEM Desktop with Output, Doodle and Paint applications. You know what an operating system does - it takes care of all the fiddly bits regarding the keyboard, display monitor, disc system, files and input/output.

SOFTWARE PROVIDED

Once you are booted up in MS-DOS, you can control the computer operation by typing in commands. This can get laborious, so it's GEM to the rescue. This graphic user interface uses pictures to show you what is happening and what resides on your discs. It allows you to manipulate files easily, to run specialised applications or control further programs via the interface. This is a WIMP environment: W is

for window, a portion of your monitor screen; I is for icon, a small picture; M is for mouse, a pointing device; and finally, P is for pull-down menus.

By using GEM, one might believe that the eye is quicker than the hand. Decision-making by moving icons is heaps easier than typing in long command lines, with the ever-present possibility of typing errors.

If GEM only provided this ability, it would justify itself no end. Additionally, however, this user's tool gives one the potential to create graphic information and store it in files as easily as one does in word processing. These graphic files can be displayed, printed, edited and exported to

This is hardly enough, if you've ever worked with it before. Additional outside reading (and expense) will be necessary if you want to become an expert at using it. Still, it was nice looking at the tiger picture, one of the example files on the disc.

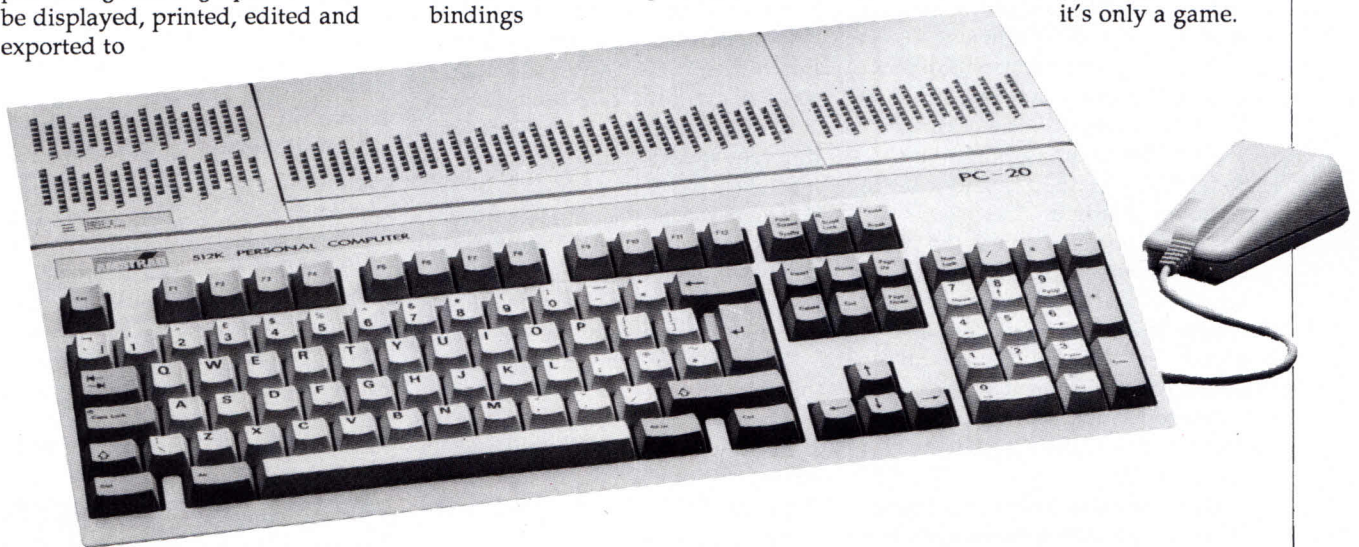
MANUALS AND DOCUMENTATION

The original documentation from Digital Research is very comprehensive. The price is commensurate, too. Therefore, one cannot complain too much. Amstrad's User Manual does provide quite a bit of information. I did not like the format, however. It is another of those "perfect" bindings

can truly use the user guide whilst keyboarding-open it to a page, and it simply lies there. Another impressive plus in that book was the comprehensive data regarding the hardware: socket and edge connector designations. None of that fancy stuff here...

BOATANCHOR = H/W - S/W

Looks like a BASIC statement, doesn't it? My interpreter says hardware without software is useless. After you play around with MS-DOS a while, you need applications, something that does something - even if it's only a game.



other applications programs.

You'll work best with GEM by using the mouse. Amstrad provide a two-button model as standard. Buying someone else's mouse to go with your cut-rate imported clone would cost you around \$95.00.

I ran up GEM whilst the computer was still connected to the National telly. Having used GEM Desktop and Draw Plus before, I found no surprises. Everything seemed to perform as it should. I took a cursory look at DR Doodle, without reading the manual.

GEM Paint, a much more sophisticated program, has just over four pages allotted to it in the book.

which requires the ability of a chimpanzee to hold open and still type on the keyboard.

There are three separate sections in this manual: Part One is a guide to using the PC; Part Two is an MS-DOS guide; and Part Three covers GEM. There is no master table of contents; instead, each part has its own. Thus, you are constantly flipping through the book to find a reference. Even the index at the back does not save time, for you still have to find the right page 4-2, for example.

Probably, I was spoiled by the User Guide which came with the 6128. Its spiral binding means one

▲ With a built in RF-modulator, the Amstrad PC-20 can be yours for \$799, if you're happy plugging it into your TV. With a 14-inch CGA monitor the package price only climbs to \$1199.

USING AN EXTERNAL 5.25" DRIVE

All this brings me logically to the subject of an external floppy disc drive - I had a lot of 5.25" software I wanted to try out. So I made a trip to The Amstrad User Computer Shop to get an external drive unit. Now I could check out backup discs and "evaluation" software acquired other places and used on several different machines, including an ancient clone with MS-DOS 2.11.

This add-on will be useful if you're into Public Domain programs. With examples available for

as little as \$5.00 per disc, it wouldn't take long for the unit to pay for itself. Even if it IS overpriced. Although you can add a second 3.5" external drive, a better option certainly would be the 5.25" one. It's a stand-alone unit in a matching metal case, with a dual umbilical, one part of the drive signals, the other for power.

The RRP of \$350.00 might sound reasonable to some people. My comparison is an Australian company I worked for last year which was buying bare drives for their clone assembly line for \$84.00. Add ten dollars for a case and twenty for the "specialised" cable, even duty and freight, and there's still a hefty markup for AMS Trading.

Even buying retail, one can pick up a new, quality Japanese drive for \$239.00. Amstrad's little beauty is made in Korea, according to the box. Mind you, their quality control is probably alright.

To add insult to injury, the user information is inconsistent. You're supposed to tell the operating system what type drive you have added. The User Guide refers to a DRIVPARM command yet the instructions included with the drive only refer to a DEVICE parameter and a RESET.

Both methods were tried. Using DEVICE to interrogate the system always gave me a reply that the B drive was a 720K unit. This is what the User Guide maintains, as it's to do with ROM information. The drive instruction sheet says different. I didn't have the time to pursue this anomaly to a conclusion. It would be interesting to see if someone with hardware nous could cobble up a cable, plug in a "foreign" drive and work successfully.

Maybe it's the fault of that Mexican troublemaker, Manual Discrepancies. Small things like backlash instead of slash - and on the same page as a correct example, too - are things you learn to live with. But a beginner concerned about proper system configuration would be driven straight up the

wall.

Consider page 2-4, Part One: "The possibilities for expanding your PC are limitless". Or, page 3-36: "Extended memory cannot be fitted to an 8086 based PC". The drive instruction sheet mentions an EXT switch next to the power connector. The User Guide refers to a unit on the DIP switch.

Anyway, despite being told I had a 720K drive, it worked perfectly. I ran several utilities without a hitch, transferred files back and forth, and tried such Public Domain programs as PC-Write, Deskmate, and BridgePal off the B drive.

On a couple of occasions, I got a general failure report but the unit responded successfully to the Retry. I do not fault the hardware; rather, some of my discs have been through a lot of use and on a number of different and sometimes ancient machines.

The monochrome monitor I used for the majority of tests is a crisp, paper white on clean black background. Don't be disconcerted to see the green flash on a reset; it's not your usual phosphor. Full marks on this one.

I had a short look at the colour monitor whilst in the shop. It, too, seems easy on the eye. Well worth the extra cost - and necessary if you want to use GEM, remember.

CONCLUSION

Though I have knocked a few specifics, the overall package cannot be beaten by anyone. Try looking at the discount house adverts and see if you could put together a computer out of bits and pieces for less than Amstrad sell one. You cannot even match the hardware on price and that does not take the software into consideration. Add on the extras like the interfaces and the mouse, and you have a truly cost-effective system.

Overall, the PC-20 worked splendidly. Whilst I'm not about to give up my beloved CP/M machine, I fully intend to buy one of these jewels in the near future. That's the bottom line on this review.

SCREEN TEST

As part of the review, I hooked up a TV set to test its clarity and effectiveness. Using a TV saves you \$300, so is worth considering. My first effort with an old JVC were unsuccessful, but I put this down to the age of the unit. I tried a later model National 14" set. This was decidedly better and text was even legible in the 80 column mode. There was still a slight 'shimmer' in the display, however, and I therefore would not recommend the TV economy approach for any serious work. You either need a proper monitor or a discount optometrist.

Perhaps a state-of-the-art television will give the reader a satisfactory picture. I'm probably too critical about image quality, but I've outgrown the modulator approach. Even with a monitor, the unwary user will find there are lurks. One of the perks included with the PC-20 is the GEM Desktop graphic user interface. That's good news. The bad news is that GEM will not run with a monochrome monitor - you must either use the TV or a colour monitor. Be warned!

TECHNICAL SPECIFICATIONS

Processor: 8086, 8MHz

RAM: 512k, upgradable to 640k

Mass storage: Single 3.5" 720k floppy drive

Keyboard: 102 key AT-style

I/O: -Parallel port (1)
 -Serial port (1)
 -Monitor port (1)
 -Video/monitor port (1)
 -TV port (1)
 -External floppy port (1)
 -Joystick port (1)
 -Mouse port (1)

Monitors: MONO: 80 col X 25 line.
 COLOUR: - 40 X 25 line or 80 X 25 line in 16 colours;
 - 320 X 200 in four colours;
 - 640 X 200 in two colours.

Expansion: 2 PC-XT compat. slots

Software: MS-DOS 3.3 operating system, GEM, GW-BASIC

MASTERFILE PC VERSION 3

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

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

MASTERFILE-DB

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

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

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

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

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

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

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

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

MASTERFILE-WP

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

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

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

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

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

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

HELP AND LEARN

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

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

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

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

Full: DB + WP

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

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

The Amstrad User
1/641 High Street Road
Mount Waverley 3149
Phone (03) 233 9661

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

MASTERFUL MASTERFILE

With the release of Masterfile PC version 3 come a number of major improvements as well as an optional add-on word-processing module. It's worth a look, says Shane Kelly.

There are a lot of database systems out there for you from which to choose. Almost all claim they are 'relational' to some degree or another. There are no true relational databases available for micro-computers at the time of writing.

Some study of the subject will reveal that the inventor of the relational database mode, Mr. Edgar Codd, laid down twelve rules that define a true relational database. There is not one microcomputer database system that fulfills these twelve rules and hence there is not one relational database system for microcomputers. Yet a lot claim to be. Why? Probably because these untrue claims sell databases. Masterfile claims to be a true relational database. It is not.

It is however, a powerful and relatively easy to use offering in the database race for your dollars. I would describe Masterfile PC as a report driven database that allows you great flexibility in designing, displaying and printing your data.

When testing a new database, I generally try to design an application that is not covered in the manual or tutorial. For MFPC, I designed a licensing system where a company may be the holder of several licences of different kinds, all relating to different premises. I had two main files, LICENSEE and PLACES. As you would expect, the

licensee file held details of the company while the places file held the address of the premises that was licensed. I tied the two files together with a licence number that was unique for each place. For instance, one category of licence had licence numbers that started with P while another had numbers starting with X. All licensees had a name and address and a contact name along with as many licence reference numbers as required for their places.

"...a system that could easily be all you will ever need in your small business"

The places file contained the licence number, premises name and address and the date licensed. The places file was then split into several different files keyed by the licence number for that category of licence. After this preliminary work was done, I set about designing the reports (or Formats, as MFPC calls them) that would give me my required output.

You can design up to 32 reports for each file and I designed 16 because I couldn't think of any more

ways to access and report on my data. MFPC handled all this with ease. It sorted the data at my command with impressive speed, it swapped reports without a hiccup and it was generally waiting for me instead of the other way around.

To access the data in the places files, it is necessary when designing a report to specify which field in the primary file is the key to the secondary file, and then which field is to be displayed in this report. The format of this command takes some getting used to, but after a while it is second nature. I had MFPC working at its limit with four additional files contributing data to my reports - each referred to a different category of licence. MFPC handled this with absolutely no problems. It all worked as the manual said it would!

My files were nowhere near MFPC's limits, being some 87K and 76k respectively before I split the PLACES file, but I believe that anyone who needs to handle files that are larger than this on a regular basis would be better with a database that had a full blown programming language or at least a full blown report generator. MFPC can handle files as large as 16Mb or up to 32768 records - more than enough for most applications in small business.

MASTERFILE IN DETAIL

MFPC has some interesting features to make life easier for you. I found the programmable function keys to be a great asset in that I could set up a function key with all the required menu choices to take me from the main menu, after opening the primary file to the report I wanted with very little fuss. I could even specify a default function key to be executed automatically after the primary file was opened. I could also set up a limited type of programming function using some built in IF ... THEN type statements, but more could have been said about this in the manual.

MFPC can calculate fields in your database and present you with column totals. It can be pro-

grammed via expansion and function keys to do things automatically that need doing on a regular basis (like updating the interest rate on your mortgage!) It can import data (ASCII) from other files and it can export data (ASCII) to other files.

In short, it is a powerful and flexible database manager that has a few shortcomings in the user-interface area - it is completely menu driven with some menus going four and five keypresses deep. It begs for a mouse option! The manual is reasonable, but a bigger tutorial section and more help on the programmable aspects would be appreciated.

One thing that did annoy me was not being able to alter data in my report if it came from a file other than the primary file. To alter data in one of those files I had to close the primary file (and all its secondary files) and then open the secondary file as a primary file, alter the data, close it, then re-open the old primary file and its secondary files and then display the altered data. Shame on you Campbell Systems for calling this a "true relational" system!

THE WORD PROCESSING MODULE

If that's all there was to MFPC, you would be getting your money's worth. Included in the full version of MFPC is a document mode that is called a word processing system. In fact, if it was a stand alone product, it would rival some of the more expensive offerings out there. But the best thing about this document mode is the ability it has to merge data from your data files into its documents. The system is designed to allow you to store all your like documents under one file name and then just select the one you want to work on by browsing through an index. This is a real plus - you can store all your invoices in one file and pick the most appropriate one for the occasion - you could have one that was very nice for customers who pay on time, one that wasn't so nice for sometimes tardy customers and a damned rude one for the

incessantly late! As with most data merge type programs, you specify where the data is to be inserted by means of formatting characters embedded in your document.

With MFPC document mode you are not restricted to getting your data from one datafile. You may get your data from as many files as you like. You can also specify how that data is to be formatted. This is quite handy if you are printing mailing labels in three-across format, as you can access three records from the database file and spread them across the page quite easily.

Print formatting is taken care of by means of embedded tokens in the text. All embedded tokens start with the character and you can put more than one token on the same line.

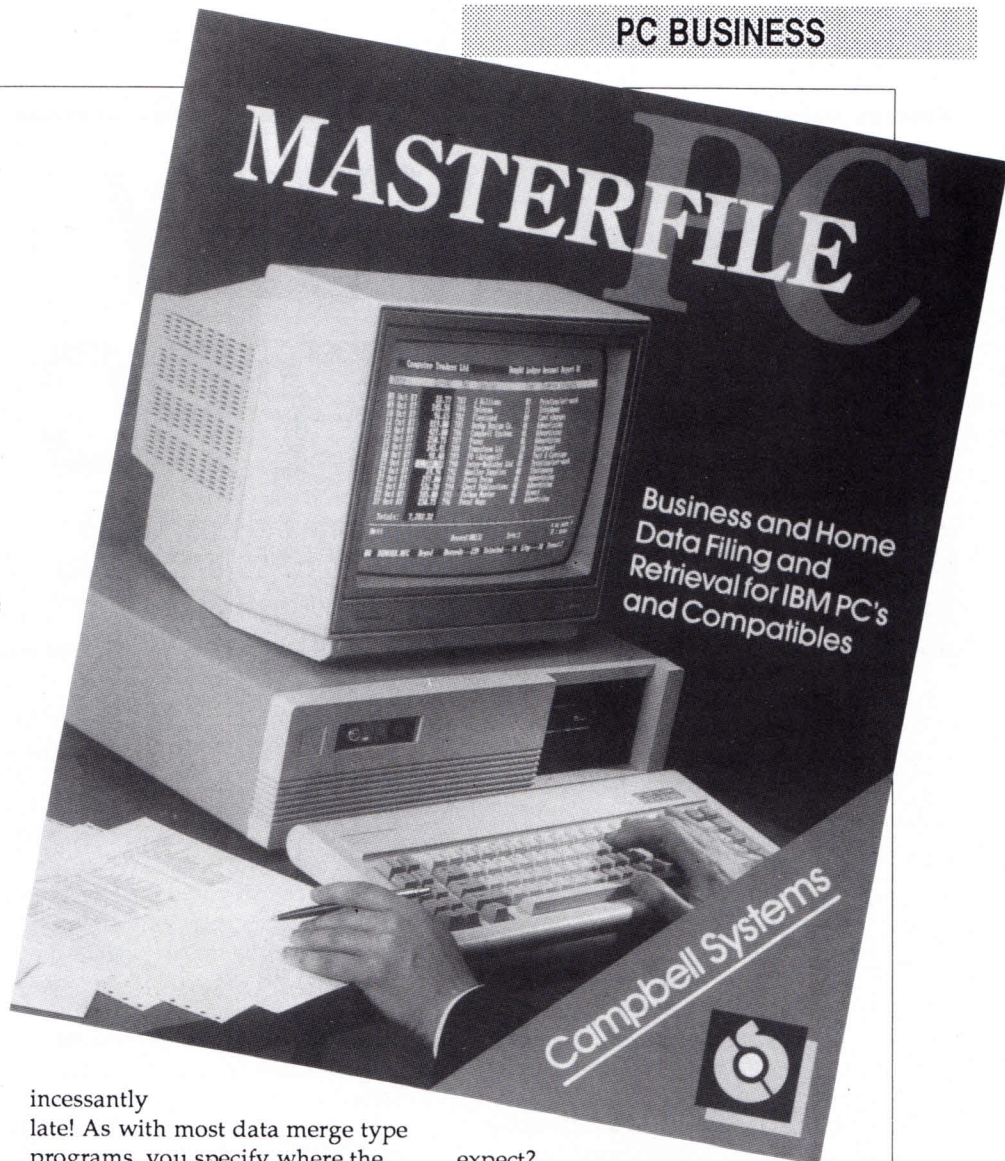
Fancy fonts are not available unless your printer has this capability, but at this price, what do you

expect?

MFPC is a good solid database manager that would suit a lot of small business type applications. It can be used simply as a flat file database or you can look up data in other files. It is fast, efficient and stable. On its own it is well worth considering in your short list of databases. Add to it the document mode and you have a system that could easily be all you will ever need in your small business.

I have watched MASTERFILE grow from the time I came across it on the AMSTRAD 464 to its present incarnation as MASTERFILE PC. It still has some warts (oh, for a mouse to navigate those menus!) but they don't affect it when it comes to performance, stability and features.

Check it out, you won't be disappointed.



IT'S PAYDAY ON YOUR PC

Your PC is not beyond dealing with the demands of payroll processing. In fact, unless you've more than 999 employees, SAGE have the solution that works on the Amstrad PC!

In these days of inflation and ever-increasing interest rates, getting paid regularly and on time remains a very important consideration for the vast majority of Australians. Whether due weekly, fortnightly or monthly, make it a day late and industrial strife will quickly rear its head.

Conversely, the actual task of paying the workforce is becoming more and more complex. Adjustments of indexations, changes in taxation rates and health fund contributions are but a few of the many matters with which today's paymaster is confronted.

That is the reason why even smaller firms are computerising their payroll department.

Such a move requires careful evaluation as the consequences flow into other areas of activity. The wages payroll, covering day staff at the operational level is the most demanding system.

Because of the need to process

attendance records prior to the calculation of pay, the time between close-off and the day of pay should be as short as possible. Ideally, attendance records up to the day prior to payday should be processed to prevent payment of days not worked. The alternative, of keeping a number of days' pay in hand, is not favoured by the workforce and may also lead to friction.

In terms of overall control, the wages payroll represents the best fail-safe control. Unless an attendance card is submitted for each worker, he or she will not be paid as part of the system. However, with a salaried payroll, once an employee has been placed on the payroll, he or she will be paid each period - unless some specific action is taken to stop payment or remove the name from the payroll.

Calculating payroll involves a number of different steps:

1. The time card, time sheet or other attendance record is gathered

from each "clocking-on" point.

2. The hours worked are summarised by the timekeeper for each employee. Absences and short-time are dealt with by the Personnel Department.

3. The extensions are computed, i.e. hours worked x hourly rate. Overtime, shift allowance and other special payments are also calculated to give gross pay.

4. Income tax is calculated according to the tax scale and deducted from the gross to give net pay.

5. Standing deductions authorised by the employee are then deducted.

6. A pay sheet is created showing details of gross pay, tax, deductions and net pay for each employee.

7. A pay envelope or pay advice slip is created for each employee showing all details on the pay sheet.

8. If the employees are to be paid in case, a coinage analysis is carried out to ensure that the appropriate denominations of money are available.

9. The employee is paid, and to acknowledge receipt of pay, signs the paysheet where details are shown.

The secondary activity involves maintaining a paycard for each employee which is posted with the details of each pay. Over the space of a financial year, the card will accumulate the data to enable a group certificate to be prepared which will show the gross pay, total of taxation deductions, other deductions and net pay for the year.

WHAT NORMALLY HAPPENS

Carried out completely manually, the above is an onerous task. The smallest organisation might rely on its general accounts person to handle the problem, but some 1,000 Australian companies regularly utilise the services of bureaux.

With the various awards, holiday loadings, flexitime and penalty rates enjoyed by our workforce, calculating payroll demands very sophisticated software. It is extremely time-critical, and with most organisations

The Bottom Line

	Single User	Networking Version
Bookkeeper	\$299.00	-
Accountant	\$449.00	\$900.00
Accountant Plus	\$749.00	\$1200.00
Financial Controller	\$1149.00	\$2500.00

* Recent price changes have resulted in a significant reduction in the price of the Financial Controller package.

still paying out cash, contracting the whole mess out has always appeared attractive.

An average bureau payroll would be one servicing around 100 employees, and if we average out the mixture of weekly, fortnightly and monthly pays, that means bureaux handle over 40,000,000 pays each and every year - extremely big business. Each pay costs the employing company approximately \$1.00, so total revenue would comfortably exceed \$40 million.

Spending that kind of money just to pay the workers raises the question as to why business has continued using such services - surely there must be a better and less expensive solution? The answer is that until now, there wasn't.

Of course there have long been payroll packages available. Most need a mainframe to run successfully, and even those claimed as being "PC-based" are invariably far too expensive for the typical Australian company.

Most claimed micro-based payroll systems were just not written with the PC in mind. In the main, they are outdated packages originally developed overseas to run on minicomputers and mainframes in a bureau environment.

Traditionally, they remain basically "batch" systems, with all the inherent drawbacks of being slow and cumbersome in operation. Because of these drawbacks, they are invariably expensive to purchase and maintain.

THE INTELLIGENT ALTERNATIVE

The Sage Payroll Plus package was written specifically for the PC, and takes full advantage of the personal computer's unique capabilities. For \$599, Sage's Payroll Plus handles all the payroll demands of the small to medium business. It runs on an Amstrad PC (or compatible) with a hard disc and MS/DOS operating system, and has enough capacity to calculate the pay details for up to 999 employees.

It has done away with slow batch-processing, and calculations

take place immediately within the pay office, so providing instantaneous display of individual pays. The results of entries are presented on the screen as a complete and detailed pay, with "tax paid" and the employee's previous wage for comparison.

This means the user can enter, check, then print out pay-advice starting less than one second after the final entry, and with no payroll "run" before actual production. Where time is a vital factor, there is nothing to compare.

"...bringing it down to the desk-top level within the normal office environment is going to result in a whole re-think of the payroll functions."

Cost is another positive advantage. Although an extremely complex piece of software, Payroll Plus has been written in the innovative "C" language, which aided in keeping down programming time, and allowed it to be developed with the mass market in mind.

The end result is that the software costs less than the price of its nearest competition and considerably less than that of any annual bureau charges, so allowing the total installation - including hardware - to be easily written off in the first year's use.

Making full use of colour (where available) for ease-of-use and simple operator training, Payroll Plus puts computer power into any-sized pay-office. It can process weekly, fortnightly or monthly pays with equal flexibility, and covers all

normal methods of payment from cash, to bank or building society direct entry.

They are not all its features, but basically the system has been designed to allow a company to automate a manual system of transfer from a bureau with no interruption in its normal procedures - and without upsetting the pay office staff.

Payroll Plus really represents a whole new way of looking at the perennial payroll problem. That problem has long been an expensive itch that Australian business couldn't scratch, and bringing it down to the desk-top level within the normal office environment - and with total in-house control - is going to result in a whole re-think of the payroll functions.

The system offers many advantages over others on the market, and being inexpensive to install and operate, it makes a lot more sense than other methods.

Sage Australia has been involved with Payroll Plus from the original concept, and they're responsible for a lot of practical feedback which has been incorporated in the final product.

And with ninety-days free support, Sage specialists are just at the end of the telephone if a problem ever does arise.



ANSWERS TO AGENDA

Ian Sinclair has another book to his name with "Lotus Agenda", the how-to-do-it handbook for the latest Lotus software release. But the book is only as good as the program, says Shane Kelly.

I have a theory. My theory goes like this:- Ian Sinclair is not a person. "He" is actually a conglomeration of several writers. This must be true because how else can he write the prolific number of books that he does and still manage to make them useful, clear and a guide for the novice?

Given that Ian Sinclair does write all these books himself, and does somehow manage to make the texts clear, when he does occasionally fail (very occasionally) you must ask yourself is it the author, or his subject? If you accept the fact that some subjects are just too hard to explain in words of two syllables or less, you must blame the subject.

In this book on Lotus Agenda, Ian Sinclair has attempted to explain the usefulness of this "free-form" database product, which, according to the publicity blurb on the back cover, "[Agenda's] impact on the market has been compared to that of the first spreadsheets." The book states in the preface that to know how best to use the program, you need to use it, and in order to be able to use it you need to know how best to use it. That

chicken and egg situation is what Ian Sinclair is trying to dispel. He presents numerous small but diverse examples of Agenda at work with two purposes. One is to introduce the user interface and jargon used by Agenda, and the other is to show how versatile the program is in reality.

From my reading of the book, the user interface is a nightmare. Also, the usefulness of these type of programs (called Personal Productivity Managers or Personal Information Managers) has yet to be established. The main reason I say that is because you still need to enter the data into the program. Entering data into a computer requires typing (mostly), and to become a competent typist takes practice. How many people in situations where Agenda might be useful have given up because it was taking too much time to transcribe the information from paper to the computer? I suspect quite a few.

Be that as it may, Ian Sinclair has done a reasonable job of explaining a program that has yet to find its role in life.

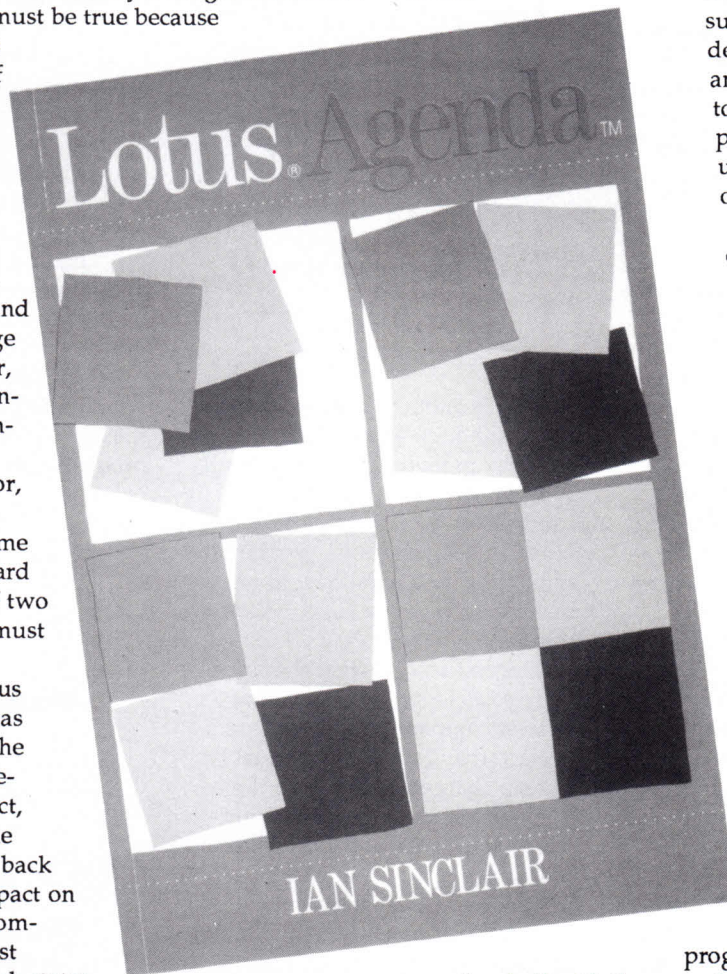
It is not his fault that the subject he is writing about defies simple categorisation and has questionable value to the mainstream computer user. It also has a user interface that is crying out for a mouse.

The book failed to convince me that I need Lotus Agenda. It also failed to convince me that I could easily get useful data from the program. I am convinced that I can get heaps more data than I need from Agenda, but the problem is usually not that there is not enough data, but too much!

To put it in a nutshell, because I was not impressed with the program, I was not impressed with the book. If you are impressed with Agenda, but are having difficulty with that user interface and jargon, buy the book.

My bet is that the program will still end up on the shelf with the rest of the "revolutionary, must-have" packages that come along every other week.

Publisher - Blackwell Scientific Publications
Price - \$39.95



First with the Best!!

GO! GO! GO! With the best and the easiest!!

**NO MANUAL!
NO DOS!
NO TRAINING REQUIRED!**

The range of GO! products are ideal for the first time user of a PC.

GO! START

- Has everything you need to be immediately productive. Put the disc into the drive and you're away! Your screen comes up with various pictures, and you simply select a number for any of the following:

- Four Function Calculator
- Letter Writer and Typewriter
- Computer Tool Box
- Print functions for printing envelopes and address lists.
- Address Filer
- Notepad
- Animated Maze Game

GO! WRITE

- Easy to understand screen prompts allow you to produce professional business letters, memos and reports. Also party invitations, calendars, banners and address forms.

GO! FILE

- The use of numbers to choose pictorial options allow you to search, sort, retrieve or print from this fully functional database. You just fill in blanks in ready made file forms. Print name and address labels, mailing lists, recipes, research notes etc.

GO! PLAN

- Once again simply hit a number and choose an option, and once again you don't waste time creating a spreadsheet from scratch - simply fill in the blanks in the ready made forms. e.g.

- Auto Expense Planning
- Home Mortgage Planning
- Retirement Planning
- Savings Planning
- Loan Planning
- Personal Financial Planning

All the above contain *COMPUTER TOOLBOX* - a handy utility which enables you to format a disc, copy a disc or files without confusing DOS commands.

And look at this value only —>

\$29.95!

Pactronics

GAMES! GAMES! GAMES!

NEW SMASH HITS FROM PACTRONICS FOR SEPTEMBER!

1. SANTA PARAVIA - a fun mentally stimulating strategy game in which you balance the forces of nature, economics, population and even religion to ensure the success of your kingdom.

2. THE CALIFORNIA RAISINS - Mistaken for ordinary grapes, the famous California Raisins are being held captive at the dreaded Cereal Factory by some real flakes! TINY GOODBITE, the last remaining California Raisin, has just heard through the grapevine that his friends are about to be processed! Help TINY GOODBITE fight these junk food meanies and rescue his wrinkly friends! Meet danger head on as you fly to the Cereal Factory and fight the meanies! Overcome menacing threats, hazardous obstacles and certain disasters to rescue TINY GOODBITE's famous friends!

3. USS STINGER - The ultimate combat simulation game! You are Captain of an attack class submarine. Complete graphic action with full 3D screens, zoom magnification, radar/sonar, etc, etc, etc.

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

For the nearest retailer in your state contact:

NSW: Pactronics P/L, 33-35 Alleyne Street, Chatswood (02) 407 0261
VIC: Pactronics P/L, 51-55 Johnston Street, Fitzroy (03) 417 1022
QLD: Pactronics P/L, 12 Stratton Street, Newstead (07) 854 1982
SA: Baringa P/L, (08) 378 9177
WA: Pactronics WA, Unit 13, Rear 113 High Road, Willetton (09) 354 1122
NEW ZEALAND: Micro Dealer, PO Box 23-678, Papatoetoe, Auckland. (09) 274 9300
MAIL ORDER: The Amstrad User, 641 High Street Road, Mount Waverley, Vic 3149. (03) 233 9661

ALL ABOUT 4DOS & MORE

4Dos is an alternative to COMMAND.COM and it really has Chris Collins interested. There's more news and updates too!

Apparently, the Amstrad PC2000 series (2086, 2286 and 2386) are having failure rates on between 25% and 50% of all machines shipped from the factory. This could be very worrying if you are considering purchasing a PC2000 series Amstrad.

Still on the PC2000 series, except that this time it has a lot to do with Lotus 1-2-3. It seems that due to the way Amstrad has designed the PC2000s, Lotus thinks that a co-processor is fitted to the computer, even when it is not, and therefore attempts to use the co-processor. Ergo, instant crash. I believe Amstrad is releasing a patch to fix the problem.

Finally, it appears that Amstrad has recalled all of the European hard disc equipped models for the fitting of a hard disc controller card. The mother-board mounted hard disc controller chip is apparently faulty. To the best of my knowledge, all of the machines come from the one factory. I wonder if Amstrad Australia are planning to do the same.

(Most of the above comments are probably linked with a press release issued by Amstrad International in the UK relating to the recall of PC2286 and 2386 computers. Amstrad Australia do not have the same sub-distribution set-up as the UK. They check machines before despatch and provide an "on-site" warranty/maintenance agreement with Honeywell nationally. Circuitry modifications made in Europe also apply machines sold in Australia.

The Lotus 1-2-3 problem in fact

relates to Lotus Freelance - see Newsbreak on page 6 - Ed).

Now onto this month's command. We will have a bit of a look at a command called LABEL. This command is used to put volume labels on diskettes and fixed (hard) discs. The command line is as follows:

```
[d:][path]LABEL [d:][volume label]
```

As usual, the [d:][path] before the command simply tells DOS where to find the program called LABEL.COM. If you have all of your DOS files in a directory called \DOS on drive C:, you would simply enter C:\DOS\LABEL.

Alternately, you would have the C:\DOS directory in your path command, so that no matter where you went on your hard disc, DOS could find its files.

The two options after the LABEL command are simply the drive that you wish to LABEL, and its new volume label. If you omit the drive specifier [d:], DOS will assume you wish to label the current drive. If you omit the [volume label], DOS will prompt you to supply a volume label.

This volume label is displayed when you do a DIR. The first thing that you will see is;

```
Volume in drive X is xxxxxxxxxx
```

and then you will see a list of files.

```
If you type
LABEL A:ADDRESS
```

DOS will attempt to label the

diskette in drive A:, with the volume name of ADDRESS.

If you type

```
LABEL A:
```

DOS will display the current label on the diskette in drive A:, and then ask you if you wish to change it. If the diskette had a label and you pressed ENTER to tell DOS that you didn't want to change the label, DOS will come up and ask you if you wish to delete the current volume label. If you answer Y to the Y/N prompt, DOS will delete the current label.

LABEL should not be used for NETWORK DRIVES, JOINed DRIVES or SUBSTed DRIVES. LABEL should also not be used on master diskettes of software, as some installation packages use the volume label to identify the diskette when installing the software package.

Now you can merrily go away and LABEL all your diskettes in complete safety knowing now how it is done.

ON THE PUBLIC DOMAIN SCENE

The first diskette this month is probably the best shareware package that I have ever come across. It is called 4Dos, and it is a replacement for COMMAND.COM. To bring 4Dos into operation simply insert the following line into your CONFIG.SYS file;

```
SHELL=C:\4dos.com /p
```

This assumes that you have a hard disc, it is the C: drive, and that 4dos.com and 4dos88.exe are in the root directory. Make sure that at this point you have a bootable diskette handy, and simple reboot your machine. If you have done everything right to this point, 4Dos should now load and beep twice. At this point nothing will seem very different except for the fact that your prompt is now in lower case. This is where things start to get interesting.

Now, if you didn't get this far, boot your computer off your bootable diskette, and check that you have typed the line in correctly. Also check that 4dos.com and 4dos88.exe are both in the root directory of your

drive. And try again!

If you watch carefully whilst your machine is booting, you will see that 4Dos swapped itself out to disc. When in operation, 4Dos only occupies 5k of your normal RAM. The rest of its code (approximately 57k) is swapped out. First 4Dos tries for EXPANDED MEMORY (EMS), then if it doesn't find any EMS, it attempts to swap to the root directory of the boot drive to a hidden file called 4dosswap.000. The weird thing is that with 4Dos, you actually have to force the little beggar to stay in memory with a command line switch (/S:N). This is really the best way for people without hard discs to use 4Dos, for you can still use it.

When you install 4Dos, you should also copy HELP.EXE and DOS.HLP to the root directory. This will then give you access to 4Dos' on-line help system. Simply press F1 or type HELP at the DOS prompt, and you will be presented with a small window with a list of commands. Select the one that you want to know more about and press ENTER. A large window will pop-up onto the screen describing how to use that command. Press ESC to get out of help.

Most people now know what an AUTOEXEC.BAT file is, and also what it does. Well, 4Dos will only execute AUTOEXEC.BAT if you put the /p switch on the command line. The main BAT file that it will look for is 4START.BAT. If like me, you get annoyed at program installations that automatically change your AUTOEXEC.BAT file, this is a real boon.

4Dos also provides command line history and editing. This feature is used as an alternative to loading a TSR like Superkey or Prokey. To reuse the last command type, simply press the up arrow to recall it, and use the available editing commands to change it as you wish.

Another useful feature of 4Dos is its wonderful ALIAS function. This can be used to call up a certain command in a fashion that you want, not as dictated by DOS. For example: ALIAS dp dir/p

can be set-up so that each time you type "dp", 4Dos will execute the "DIR/P" command. 4Dos also has a lot of its own directory functions to use, that far outweigh the normal DOS "DIR" command. These include sorting, pausing and many others. 4Dos has more than 60 internal commands. Many of these are enhanced versions of your normal DOS commands, but over half of them are unique to 4Dos. These include ALIAS, CDD, DESCRIBE, FREE, MEMORY, UNALIAS and QUIT. I will give you a very quick run-down on a few of these.

CDD:- Change drive and directory at the same time. Go from C:\BATCHE to A:\RUBBISH with a simple CDD A:\RUBBISH command line.

FREE:- Give you a quick display of the size of a drive, and its amount of free space. Can be used as FREE A:.

MEMORY:- Gives a display of all available memory in your system including how much is still free. Display lists NORMAL MEMORY, EXPANDED MEMORY, EXTENDED MEMORY and TOTAL ENVIRONMENT SPACE. Very good!

DESCRIBE:- Allows you to attach a 40 character description to a filename for better reference.

There are also many other enhanced commands for you to play with. I have yet to find any programs that won't work with 4Dos.

Documentation available on the diskette runs to 120 pages, and the registration fee for 4Dos is a measly US\$50. This includes a bound printed manual, the latest version and a free upgrade to the next version. When you register, you also receive 4dos286.exe, a specific version of 4Dos for the 286/386 processors which is smaller and faster than 4dos88.exe.

There is a cheaper registration fee available: US\$35. This allows you to get the latest version of the software with no manual, and no free upgrade but you do get notification of the upgrade. Take your pick from the two options. You have 21 days to decide which way you wish to go.

As you can see, 4Dos is one powerful operating system. It has received a permanent place on my hard disc and is now registered to me! 4Dos occupies 1 diskette, and consists of 2 archives called 4dos21-1 and 4dos21-2. Also on the diskette are 4dostip: a collection of tips regarding the usage of 4Dos, and 4utils; a couple of other utilities for 4Dos. Have fun with this one!!!

As usual, the above diskette is available for \$7.50 including postage from me at the following address:

C.J. Collins
1 Woods Street, Newport 3015

Just a few little bits of information before I go. A reader from Port Lincoln in South Australia (Hello, Mark) has sent in a little bit of news regarding hand scanners and HALODPE. It appears that a lot of hand scanners are supplied with HALODPE and it will not work on the Amstrad PC1640. However, Mark has found that if you load the shareware program PC Deskteam into memory, the HALODPE program will function quite satisfactorily. He doesn't know why this should occur, only that it works. Thanks for the tip, Mark!

Another piece of information for those of you who are worried about registering your programs overseas. There is a company in Queensland called Manacomm Pty. Ltd. who are the authorised PC-SIG agents in Australia. They have available registered versions of a lot of the great shareware software such as the Buttonware collection, PC Write, Express Corporation's software and many others. If you have been worried about registering, now is your chance. The address is as follows:

Manacomm Pty. Ltd.
Freepost 29,
PO Box 509
Kenmore 4069

Write to them, enclosing a stamped self addressed envelope, and ask for further information.

Well, that's all for this month. Until October, have fun computing!

ADVENTURER'S ATTIC

Philip Riley has some things to say about Artificial Intelligence and computers that don't work. There's a few Qs and As too!

This month we're going to have a look at Artificial Intelligence. Yes, I know that we have looked at artificial intelligence before, but it is such a large subject that one or two articles really cannot cover the whole concept. We have so far looked at why A.I. cannot exist due to the limitations of today's computers, but how did the term A.I. come into being?

It has its origins way back in 1956 at the Dartmouth conference. The term is thought to have been coined by John McCarthy (although he is not sure if it was his idea or if he heard someone else mention it). McCarthy had proposed a two month study into every aspect of

learning and intelligence, with the thought that a machine of some sort could be produced to simulate it.

As you might expect they did not really accomplish much. Considering they allowed two months and did in fact only have ten people working on the project, they really did have rather high expectations.

Of course, this whole field of thought was rather new and exciting and although the Dartmouth study did not achieve much it was still considered possible to do some sort of A.I. and so of course, they kept on trying.

Probably the biggest area of research was in translation computers. These were computers for

translating one language to another. Again, many people tried to perfect a translation computer, with little success. As far as I know they still have not managed this yet. I realise you can get small computers that translate various languages, but I have only ever seen them translate one word - not sentences or paragraphs.

Why should it be so difficult to translate sentences, say, from Russian to English? Well, the main problem is that quite often a Russian word will translate into more than one English word. If you don't believe me just look in your thesaurus. One group of people tried to get around this by getting the computer to print all the various words separated by a stroke (/). This would work to a degree but of course, it made the translated text rather difficult to read.

The other problem that you have is that some Russian words don't have English equivalents and vice versa. Couple this with the fact that many languages differ in grammatical construction from English. Anyone who has learnt any sort of French would know about this. And talking of French, they have masculine and feminine words - so as you

ADVENTURER'S CONTACT LIST

(Please don't abuse the help being offered)

David Elliott
2 Selina Court
Frankston Vic 3199

Mindfighter, Hacker, Realm
Mindshadow, Bastow Manor
The Experience, Imagination

Kenneth J Philliponi
61 Bringelly Road
Kingswood NSW 2750

Secret Of Bastow Manor

Chris Maloney
20 Helena Court
RYE VIC 3941

CPC: Bard's Tale, Necris Dome
PC: Bard's Tale, King's Quest I,
II, III, Police Quest I, II, Space
Quest I, II, III, Leisure Suit Larry
I, II, Mixed up in Mother Goose,
The Black Cauldron, Demon's
Forge, Hitch-Hiker's Guide to the
Galaxy, Zak McKracken and the
Alien Minbenders, Manhunter
(New York), Phantasia I, III

Jeff Tremain
P.O. BOX 92
North Quay QLD 4002

The Pawn, Guild of Thieves,
Jinxter

Jason Pavy
105 Lyall St. Kalgoorlie
W.A. 6430

The Hobbit, Forest at Worlds End

Rhondda Cook
PO BOX 418
Gatton Q.L.D. 4343

Time Search, Trials of Arnold
Blackwood, Arnold goes Some-
where Else, Castle Dracula,
Mountain Palace Adventure

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

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

Karla Slack
P.O. Box 201,
Springwood N.S.W. 2777

Adventure Quest, The Hobbit,

Zork II, The Neverending Story
(1) Wishbringer

John McNeill
1 Hawkins St.
Chatswood Hills, Qld 4127

Jewels of Babylon, The Trials of
Arnold Blackwood

Dean Stibbe
25 South Esplanade
Bribie Island Qld 4507

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

Michael Fitzgerald
54 View Road
Burnie Tasmania 7320

The Hobbit, The Neverending
Story

John Hall
28 Werribee Street
Broadmeadows, Vic 3047

Forest Land

Dave Weatherhead
2 Searle Court
Nth. Dandenong Vic 3175

Aftershock, Imagination, Seabase
Delta, Necris Dome

Mark Nelson
128 Parkin Street
Rockingham. WA 6168

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

John Dawson
RSD 557,
Cygnet Tasmania 7112

Ground Zero, Curse of
Sherwood, Pyjaramama, Down
the Mine, Warlock, Exchange,
Castle Dracula, Time Search,
Subsunk, Mountain Palace
Adventure, Mayday, Sorcery+,
Aftershock, Knight-Tyme, Zorro,
Adventure Quest, Time & Magik
Trilogy.

Scott Barker
88 Elsie Goe,
Chelsea VIC. 3196

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

Steven Orr
17 Garong Close,
Edgewater, W.A. 6027.

PC Games; Zork I, II, III, Bard's
Tale I, Hitchhiker Guide To The
Galaxy, Kings Quest I, II & III,
Police Quest, Space Quest I, II,
Land Of The Lounge Lizards,
The Hobbit, Castle Adventure,
Crime Adventure, New York
Adventure, Ultima III, Buckaroo
Bonzaï, Wishbringer, Enchanter.

Bobby Lockett
5 Wendy Place
Prospect, Tasmania. 7250.

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

can see the list goes on and on. I read a novel not so long ago, set in the future, about a man who for amusement would get a translation computer to translate book and movie titles from English to some foreign language. He would then translate it into another language again, and then back to English. Of course the title would end up totally different. He would then send it off to a friend who would try and work out the proper title. Of course, his friends were doing the same.

COMPUTERS OR CALCULATORS

Maybe the novel is not too far from the truth; maybe we will never have a computer that can translate languages. But something new is always just around the corner, as the American defence department discovered some years ago when they invested millions of dollars into a new computer for targeting artillery guns (I am sorry but the name escapes me at the moment). The various co-ordinates and details were entered into the computer and the computer would work out the elevation and such like of the guns. The computer was to be tested for the first time out on the firing range.

The procedure was that the generals who had the computer would stand in view of the target area. The gunners would have to call them up with various details, these details then being fed into the expensive computer, the resulting information then being radioed back to the gunners.

The order to start firing was given and instead of radioing in for co-ordinates, the gunners just started firing of their own volition. To the amazement of the generals, their computer sat silent as the guns happily hit the target area with no problems at all. The guns were visited and the rather embarrassing discovery was made that the gunners had been out buying themselves some of the very first calculators for about \$199, and were working everything out on these.

Although it was rather an expensive calculator compared to today's prices, it was still way cheaper than the millions of dollars spent on the computer. Not surprisingly, the computer was scrapped and the calculators used.

Well, that's it for this month; very sorry if I waffled on a bit! Till next month, goodbye.

QUESTIONS

Darren Bruggeman is first this month with some questions for Bastow Manor. What can you do in the bathroom? How do you open the door next to the clock? Is it possible to get onto the balcony and if so, how?

Nick Gustafsson is having trouble in the game Garfield's Big Fat Hairy Deal. He can get to the city pound but is unable to get the key from the chest. When around the rat Garfield gets very hungry and has a snack attack thus devouring the key, please can someone help Nick soon as he is balding rapidly.

ANSWERS

Mark Dawson has sent in some answers for Lancelot. How do you get through the briers? Here is how Mark did it.

When you meet up with the black, green and red knights, kill the black and green knights but spare the red knight. He will salute and ride off to the North. Follow him and get the horn; blow it, then enter the castle lyonesse (if the red knight has not already come out). When you see the red knight tell him to FOLLOW YOU. Go to the briers and type in RED WAIT THEN CHOP BRIERS THEN CHOP BRIERS THEN CHOP BRIERS (yes, three times). Keep typing CHOP BRIERS until you can freely go north.



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

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

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

Choose your style from these four:

<p>STYLE No. ONE</p> <p>23 Meadowbank Road Primrose Hill Victoria 3150 03 - 123 4567</p>	<p>NB. Text will be centred near top of sheet</p>
<p>STYLE No. TWO</p> <p>23 Meadowbank Road Primrose Hill Victoria 3150 03 - 123 4567</p>	
<p>STYLE No. THREE</p> <p>23 MEADOWBANK ROAD PRIMROSE HILL VICTORIA 3150 03 - 123 4567</p>	
<p>STYLE No. FOUR</p> <p>23 MEADOWBANK ROAD PRIMROSE HILL VICTORIA 3150 03 - 123 4567</p>	

The above styles are roughly half actual size

HOW TO ORDER

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

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

Send your order to:
Strategy Publications,
641 High Street Road, Mount Waverley
Vic. 3149 • (03) 233 9661

FANTASTIC ADVENTURE

Barrie Eaton returns with a 3-part whopper of an adventure type-in for CPCs. It's sophisticated, challenging and an insight into serious BASIC programming. Here's part one...

Many years ago a renegade of the gods stole the three symbols of power, the golden orb, silver sceptre and crown segment from the temple of the great sky city. Since then control by the gods has slowly deteriorated to a point where the Supreme Being has decided to intervene. It is known that the renegade god hid the three symbols of power in three different locations on earth. The Supreme Being wants them back and you, a powerful mortal of Earth, have been given the dangerous quest of regaining them. So, unarmed, you set out to the mystical regions of the Earth unaware of what lies before you...

Says Barrie:

As it is my purpose to try to emulate some of the features of present-day adventures I have incorporated some of these in this type-in. They are as follows:

- You can speak to people in the game and some will help you while others will only trade with you.
- Once an object has been referred to, any further reference to that object is by merely using the word "IT", e.g. Get Sword, Examine It, Drop It, etc.

I find some adventures also keep a score, hence I have included a score routine for those who like to see how well they are going in the game. One merely types in the word "SCORE" for the result.

Finally I have incorporated an "OOPS" command to allow one to backtrack once they have gone a little too far, providing of course, they haven't been killed.

```

10 REM **** FANTASTIC ADVENTURE ****
20 REM *** AUTHOR: BARRIE EATON ****
25 REM * THE AMSTRAD USER Sep. '89 *
30 MODE 1
40 INK 0,13:INK 1,0:INK 2,24:INK 3,1:BORDER 13
50 GOSUB 3990
60 CLEAR
70 DIM loca%(137,4),loca$(137),obj%(27),obj$(27),get$(40),get%(40)
80 pos1%=4:bz=0:sc=0
90 FOR x=1 TO 136:FOR y=1 TO 4:READ loca%(x,y):NEXT y:READ loca$(x):NEXT x
100 FOR x=1 TO 26:READ obj%(x),obj$(x):NEXT x
110 FOR x=1 TO 40:READ get%(x),get$(x):NEXT x
120 CLS
130 DATA 0,2,0,0,outside the house of the village chief . He is away at a meeting with the elders,1,3,0,0,surrounded by the buildings of a village
140 DATA 2,0,4,0,in a small village at the foot of a wide open valley,0,0,5,3,in a deep valley with green grassy banks sloping away on both sides of you,15,0,6,4,on a narrow east west path that lies at the foot of a mountain
150 DATA 7,21,9,5,in the heart of a dense forest.As you claw through the thick foliage a pixie leaps out in front of you and disappears,0,6,8,0,in a forest.It is very dense,0,9,0,7,in a dense forest
160 DATA 8,0,10,6,on a footpath in the forest.It is half hidden by dense thickets,11,0,0,9,on a narrow path almost hidden by dense growth
170 DATA 0,10,0,0,by an ancient temple half hidden by the undergrowth.Behind the overhanging vines you can see a solid door,13,11,0,0,inside the temple.It is both cold and bare looking
180 DATA 0,12,0,0,inside a mystical room.The floors and walls are covered in strange symbols. Before you stands Zelba the wizard,0,0,15,2,descending down a mountain path.You can see buildings to the west
190 DATA 16,5,0,14,on a steep mountain path,17,15,0,0,at the top of a high mountain.To the north lies a cavern,0,16,18,0,inside a cavern.It is an eerie looking place enveloped with mist,0,0,19,17,inside a cavern.A smell of rotting flesh fills the air
200 DATA 0,20,0,18,inside the dragons lair.A ferocious looking dragon lies in wait and eyes you ungrily,19,0,0,0,amongst the rotting dead.A pungent smell fills your nostrils.Around you lay the remains of the dragon's victims
210 DATA 6,28,0,22,in the enchanted forest,0,0,21,23,at the heart of the enchanted forest,0,0,22,24,in a strange land.The trees are a strange colour.You spy the occasional pixie leaping in and out of the foliage
220 DATA 0,0,23,0,in the land of the pixies.....Suddenly the king of the pixies appears before you.He is sm

```


all but very proud looking,51,64,76,26,in a small vale,
0,0,25,27,on a wooded path that leads east and west
230 DATA 0,0,26,28,in a treed area.The birds flutter
overhead,21,0,27,0,at the edge of the enchanted for
est,28,35,32,30,at the crossroads of decision.A sign
reads the path chosen from this point on only goes one
way.You cannot turn back

240 DATA 0,0,0,0, beside an ancient building.It is a dom
e shaped structure made of solid grey stone with no
visible windows.A large door however lies before you
,0,30,0,0,inside the ancient building.Before you lies
a well adorned altar

250 DATA 0,33,0,0,walking along a narrow gorge,32,34,0,
0,in a forest.It looks very forbidding,33,43,68,35,in t
he black forest,0,0,34,36,at the edge of the black fore
st,38,0,35,37,in the black forest.It looks quite i
ntimidating

260 DATA 39,0,36,0,in the black forest.Even the trees l
ook black,0,36,0,39,in a dark grove.You can sense the e
vil that lurks in this place,0,37,38,40,in an evil sme
lling place.It gives you the shudders

270 DATA 41,0,39,0,at a point in the forest where day s
eemsto turn to night.Before you lies a skull on the end
of a pole.It seems to serve as some sort of a warning,
42,0,0,0,in a black void.A sense of hopelessness overta
kes you as you press on

280 DATA 0,0,0,0,in a place of eternal darkness.The ver
y air itself is poisonous.You can feel death itself
reaching out to you,34,44,0,0,on a narrow winding path,
43,45,0,0,outside a deserted castle.There is an open
entrance lying south

290 DATA 44,50,0,46,inside the castle courtyard,0,0,45,
0,inside the main keep.Before you lies a steel door,48
,0,46,0,inside a large hallway.Old artifacts line th
e decaying walls,0,47,0,0,inside an antichamber.A door
lies east

300 DATA 0,0,0,48,inside the main chamber.The walls are
old and grey looking with age,45,0,0,0,inside the st
ables.Rotting hay now covers the floors,52,25,0,0,
in an open meadow.The grass is lush and green

310 DATA 0,51,0,0, beside a large lake.You can barely se
e the other side,54,0,0,0,at the north side of a large
lake

320 DATA 55,53,0,0,in a rocky terrain.A footpath leads
north and south,0,54,56,0,at the Doring encampment.
It is deserted but their Fort lies to the east,0,0,0,55
,outside the Doring Fort.A guard Stands before you at
the entrance

330 DATA 0,60,58,56,inside the Fort,0,61,59,57,in the m
ain tower,0,0,62,58,on the battlements of the main tow
er,57,0,0,0,inside the main chamber,58,0,0,0,on a lower
level. You can see a stone slab set into the wall

340 DATA 0,0,0,59,on the battlements outside the east

tower.A door lies before you and to one side of it a
stone relief projects out from the wall,0,0,0,62,insi
de the east tower.A chest sits in the middle of the f
loor

350 DATA 25,65,79,0,in the valley of life,64,66,0,0,on
a hillside.It is covered with trees,65,67,0,0,in a thic
kly treed area

360 DATA 66,69,72,68,in the twisted forest.Called so on
account of the shape of its trees

370 DATA 0,0,67,34,in a forest.It looks very forbidding
,67,70,73,0,in the valley of death.A stench of evil fil
ls the air,69,71,0,0,in a most evil looking place.The
atmosphere here is one of utter terror

380 DATA 0,73,0,0,in a place that reeks of evil.A dark
force stops you from turning back.You have no choi
ce but to continue forward,0,0,0,67,at the witches haun
t.Your approach is suddenly blocked by Berylda the wi
tch

390 DATA 0,74,0,0,inside the trolls haunt.It is an evil
looking place. Trolls both surround and entrap you,0
,0,0,0,in the realm of the Troll king.He sits on a mas
sive stone throne and stares at you menacingly

400 DATA 0,0,0,0,in a hellish looking place.A smell of
sulphur fills the air.There appears to be no escape

410 DATA 0,0,0,25,by a stream.It meanders towards a roc
ky terrain,0,0,78,0,in hilly terrain beside a stream,0,
0,0,77, beside a wide and deep hole in the ground.S
teps lead down,0,0,80,64,at the village of life.The peo
ple here are friendly

420 DATA 0,0,0,79,at the home of the Gaal.The Gaal chie
f recieves you hospitably,0,82,0,0,at the bottom of a
deep hole in a dark and narrow passage with steps lead
ing upto the surface,81,83,96,0,at a tee junction in th
e cavern

430 DATA 82,0,0,0,on a narrow path.A fallen neck of roc
k makes any further progress too difficult,83,87,0,85,
moving through a narrow neck of rock. A dim light shine
s from the west

440 DATA 0,0,84,86,in a treed area.To the east lies an
opening in the rocks,0,0,85,66,on a pathway moving
through a treed area,84,0,88,0,walking along a well lit
passage of the cavern

450 DATA 89,0,93,87,in a huge open area.To the east and
the west lay entrances to caves,90,88,92,0,on a pathwa
y in the thickets,0,89,91,0,on a pathway

460 DATA 0,92,0,90,on a pathway in dense shrub,91,93,0,
89,on a pathway,92,0,94,88,in a cave.There was once a d
welling here

470 DATA 0,0,0,93,inside a room.You can see a large tab
le littered with broken flasks.It looks like the wor
kshop of some alchemist. A door lies to the south

480 DATA 94,0,0,0,inside a secret laboratory.It contain
s shelves full of flasks and bottles. Nearby lies

ADVENTURE TYPE-IN

a table,0,0,0,82,at the edge of a pit.It looks too wide to jump across.Poised half way above it hangs a stalactite but well out of reach

490 DATA 0,0,98,0,at the eastern edge of a pit.A rope dangles from the roof,99,0,101,97,in a dark passage,0,98,100,0,in a narrow passage,0,101,0,99,in a cave.The light is dim,100,102,0,98,in a huge cavern.To the south you see a light from a fire

500 DATA 101,103,0,0,at the camp of the Thaarl people.They are a troglodyte race that dwell below the surface,102,0,0,0,standing before the Thaarl leader.He watches you closely as you move around

510 DATA 105,0,107,0,inside a dungeon complex.Rows of cells go off in two separate directions,0,104,106,0,in the dungeons.They reek of dank air and death

520 DATA 0,107,0,105,in a dimly lit passage,106,109,0,104,in a deep cellar.Rows of open cells run before you but one cell is still shut up by an iron gridded door,0,0,0,107,in a dimly lit prison cell.It is dusty. A trunk sits in the middle of the floor

530 DATA 107,110,0,0,on a long winding staircase that descends towards the south,109,0,111,127,in a dark cavern.The way west takes on a very sharp decline,0,0,0,110,in a passage that leads to a dead end. Above you is a wide shaft that leads to the surface

540 DATA 26,0,0,0,at the top of the shaft.It has opened out at the top of a mountain.A pathway leads north,0,0,114,0,in a mysterious looking place.The scenery is beautiful

550 DATA 0,115,116,113,in an open shangri-la like place.A river runs off to the south,114,0,0,0,at the end of a river.A waterfall cascades into it,117,0,118,114,in a wide open and green valley.There is an air of beauty all around you

560 DATA 0,116,119,0,in a flat open area very green and lightly treed....A spectral like figure suddenly appears before you,119,0,0,116,in an open meadow.A narrow pathway runs before you

570 DATA 0,118,120,0,in a treed region.a pathway goes to the east and to the south.A strange mist blocks progress to the north and west,121,123,0,119,in the woods.The pathway from here goes off to the north and south

580 DATA 0,120,124,0,in the woods.A strange yellow light lies to the east

590 DATA 0,125,0,0,in a place of sheer bliss.You quickly succumb to its narcotic effect,120,124,0,0,in the land of pleasure.A deep feeling of euphoria envelops you

600 DATA 0,125,0,0,in the land of no return.A pathway leads to an old stone temple directly to your south

610 DATA 4,85,126,75,in the place of judgement.A stone door slams shut behind you.The Temple is cold and empty. Before you lie four exits.The direction you choose from

here on is vital so choose wisely
620 DATA 0,0,0,128,you have ascended upwards into the sky. Before you lies the great sky city

630 DATA 0,0,110,0,at the bowels of the earth.The passage descends steeply to the west.A strong door stops further progress,0,0,0,129,in the great city in the sky. The journey from here on takes you to the supreme being

640 DATA 0,0,128,130,walking along a golden path,0,0,129,131,in the land of the gods.Very few mortals have ever visited this place,0,0,130,0,at the halfway well.Some unseen force prevents any further progress.The well looks to be bottomless

650 DATA 0,0,0,133,on a path that leads to the temple city,134,0,132,0,at the great temple city.Many statues of the gods are displayed here

660 DATA 135,133,0,0,inside the temple.The protector of the temple stands before you,136,134,0,0,in the innermost temple of the gods.To go any further could be fatal if you are not protected

670 DATA 0,0,0,0,standing before the person of the Supreme Being.His very presence fills you with awe and admiration

680 DATA 86,rusty key,20,skeletons,20,teeth of victims,27,a sword,95,spell,31,the sacred talisman,49,** crown segment **,0,a brass key,0,"** a golden orb **",37,a pick,62,stone relief

690 DATA 76,a boat,50,a rope,95,a potion,53,an elixir,0,** silver sceptre **,0,a vial,115,gold coin,136,The Supreme Being,61,a stone slab

700 DATA 0,an amulet,0,a steel key,0,a large key,0,a copper key,0,a charm,0,a bronze key

710 DATA 1,rusty,1,rusty key,2,skeleton,2,skeletons,3,teeth,4,sword,5,spell,6,sacred talisman,6,talisman,7,crown,7,segment,8,brass,8,brass key,9,"",9,orb,10,"",10,pick,11,stone relief,11,relief

720 DATA 12,boat,13,rope,14,potion,15,elixir,16,"",16,sceptre,17,vial,18,gold,18,coin,19,supreme being,20,slab,21,amulet,22,steel,22,steel key,23,large,23,large key,24,copper,24,copper key,25,charm,26,bronze,26,bronze key

730 WHILE qq% < 10

740 IF (posi%=42 OR posi%=75) AND bz=0 THEN bz=1:PRINT

750 IF bz>0 THEN bz=bz+1:PRINT:IF bz=6 THEN GOTO 3580

760 IF bz>2 THEN PEN 2:PRINT"Nothing happens.You feel death getting closer.":PRINT

770 PEN 3:PRINT"You are-":PEN 1:PRINT loca\$(posi%)

780 IF posi%=136 AND ag<>1 THEN PRINT"You have entered before his presence unprotected.You immediately find yourself hurtling back towards the earth":PRINT
:posi%=25

CLASSIES

FOR SALE

Start Computing with the Amstrad CPC6128 - by Judith Thamm.

A Basic course for beginners, full explanations. 112xA4 photocopied pages coil bound with over 50 programs. Ideal for computer clubs. Book \$20.00, 3" disc \$10.00, P&P \$2.00

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

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

Book plus 5.25" disc - \$35.

Book plus 3.5" disc - \$38.

Cheque, Money Order, Bankcard, Mastercard accepted.

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

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

WANTED

CHEAP second-hand Disc Drive for a CPC464. Must be 3 inch. Write or phone

Peter Davies, 104 Molong Rd, Orange, NSW 2800. Phone (063) 62 1404

CPC6128 with colour or monochrome monitor. CPC464 or CPC664 also considered. Phone (071) 25 1395 during office hours and ask for Ron.

SERVICES

FABRIC RIBBONS re-inked. DMP, LX86, LC10 - \$4; PCW - \$5; WE PAY surface post both ways. Cheque or P.O. with order. FREEPOST 47, BOX 408, Lutwyche QLD 4030

Corrupted your 3" PCW disc? Don't tamper with it. Send it (with formatted disc if you can) and \$10.00 to Disc Reader, 6/ 25 Bellevue Pde, Hurstville NSW 2220

Personalised Stationery - an ideal gift for any occasion. 100 sheets of high quality paper with address and phone number printed plus 50 matching envelopes. See page 25 for details.

USER GROUPS

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

CONTRIBUTIONS

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

DISPLAY ADVERTISING DEADLINES

Issue	Booking by	Copy by
NOV'89	11/09/89	22/09/89
DEC'89	09/10/89	20/10/89
JAN'90	03/11/89	10/11/89

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

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

ENJOY YOUR PC! Join the Amstrad Australia Group. Monthly newsletter/magazine and helpful advice. Special introductory offer only \$10.00. Write to PO BOX 478, Smithfield NSW 2164

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

Classified Ads Order Form

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

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

One thing you can't advertise is the sale or swap of software you've purchased. Such ads can be misused by software pirates.

Just fill in the application form and send it to us together with payment. We'll then place the ad in the next available issue (published 3 to 7 weeks after we receive your order.)

Classification: For Sale Wanted Services User Groups

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

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

Credit Card Number

Credit Card Expiry date

Name

Address

.....

Telephone

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

CPC & PCW PUBLIC DOMAIN SOFTWARE

The following discs contain compilations of public domain programs put together by the Advantage Computer User Group (in England) and which have been tested under CP/M Plus.

Unless otherwise stated, programs will run on the PCW, 6128 and 464/664 with extra memory and CP/M Plus. Programs for the 464/664 are on the CP/M 2.2 Collection. The discs are supplied in

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

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

CP/M 2.2 COLLECTION

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

CPC Ref: #430

FULL SCREEN TEXT EDITOR

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

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

CPC Ref: #601 PCW Ref: #801

DATABASE

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

CPC Ref: #602 PCW Ref: #802

COMMUNICATIONS

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

CPC Ref: #603 PCW Ref: #803

VIDEO CLERK

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

CPC Ref: #604 PCW Ref: #804

FIXED ASSETS LOG

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

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

CPC Ref: #605 PCW Ref: #805

COMPLETE UTILITIES

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

CPC Ref: #606 PCW Ref: #806

TEXT PROCESSING UTILITIES

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

CPC Ref: #607 PCW Ref: #807

DISC ORGANISATION

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

CPC Ref: #608 PCW Ref: #808

Z80 PROGRAMMER

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

CPC Ref: #609 PCW Ref: #809

'C' PROGRAMMER

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

CPC Ref: #610 PCW Ref: #810

'C' TOOLBOX

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

CPC Ref: #611 PCW Ref: #811

FORTH, STOIC AND 'C' INTERPRETER

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

CPC Ref: #612 PCW Ref: #812

GAMES COMPENDIUM

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

CPC Ref: #613 PCW Ref: #813

ADVENTURES

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

CPC Ref: #614 PCW Ref: #814

PCW GRAPHICS (PCW only)

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

PCW Ref: #815

HOW TO ORDER YOUR DISCS

You may either order over the phone by credit card or by post. *It is very important that you get the reference number correct. CPC and PCW discs are different.* (Software contained on 3" discs only).

The cost per disc is \$17.50. • **BANKCARD, MASTERCARD & VISA accepted** •

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

Send Your Order to:

The Amstrad User,
641 High Street Road
Mount Waverley, Victoria 3149.
Phone: (03) 233 9661

Another forty new products have been added to our list this month, including the blockbuster hit from France called SKWEEK. For more serious PC users, the well acclaimed SAGE range of products have arrived (including Payroll).

We remind readers (and visitors to our retail shop in Mount Waverley) that this list is produced at least four weeks before printing. Coupled with the fact that most lines are imported, the availability of certain items and some prices may change. Mail Order customers are advised to check first or provide an alternative choice if possible.

This list is updated every month, so be sure to have the latest copy of The Amstrad User when considering a purchase from the largest range you'll likely to find on this side of the globe!

THE AMSTRAD USER

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

HOW TO ORDER

By Mail:

Send a cheque, money order or quote your credit card number and expiry date (Mastercard, Bankcard or Visa) with your order to the address shown below.

By Phone:

Have your credit card and expiry date ready and ring (03) 233 9661.

The Amstrad User
641 High Street Road
Mount Waverley
Victoria 3149

MAIL ORDER: (03) 233 9661

SHOP: (03) 233 9211

(No Mail Order enquiries at Shop please)

Please Note:

1. For all book orders over \$20 please add \$5.00 (overseas \$10.00). If ordering the TV modulator please add \$7.50 (overseas \$12.50). All other orders are currently supplied post free (overseas add \$5.00).
2. When ordering by mail, if possible, always quote one or two alternatives. Otherwise call us first to check availability.
3. Most orders can be reserved for up to 7 days pending payment after which they will be released for others to buy.
4. This list is prepared some 4 weeks before publication and reflects the stock holding at that time and anticipated releases advised by producers. The latter are often optimistic.

Please allow at least 14 - 21 days for receipt of goods.

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

GAMES

	Discs	Tapes		
3-D Pool	39.95	29.95	Corruption (6128s only)	59.95 -
4x4 Off-Road Racing	39.95	29.95	Crazy Cars 2	49.95 34.95
500cc Grand Prix	32.95	24.95	Cybernoid	44.95 -
1942	24.95	19.95	Dark Fusion	44.95 29.95
1943	44.95	29.95	Darkside	44.95 29.95
Academy (Tau Ceti 2)	49.95	-	Deep, The	39.95 29.95
Acrojet	49.95	39.95	Desolator	44.95 29.95
Adventure 4-Pack	32.95	27.95	Dominator	39.95 29.95
After Burner	44.95	29.95	Double Dragon	49.95 -
Airborne Ranger	44.95	-	Dragon Ninja	44.95 29.95
Andy Capp	-	29.99	Driller	44.95 29.95
Artura	44.95	29.95	Echelon	44.95 29.95
ATF	44.95	29.95	Eddie Edward's Super Ski	39.95 29.95
Bad Cat	-	29.95	Empire Strikes Back	49.95 34.95
Bactron	-	9.95	F-15 Strike Eagle	49.95 39.95
Bard's Tale, The	44.95	29.95	Fernandez must Die	44.95 29.95
Basil, the Great Mouse Detective	-	29.95	Flippit	29.95 24.95
Batman - The Caped Crusader	44.95	29.95	Forgotten World	39.95 29.95
Bedlam	-	29.95	Fury, The	34.95 34.95
Beyond the Ice Palace	34.95	34.95	Galactic Conqueror	49.95 39.95
Bionic Commando	-	29.95	Game Over 2	39.95 29.95
Blasteroids	39.95	29.95	Games, The - Winter edition	35.95 29.95
By fair means or foul	44.95	29.95	Garfield	44.95 29.95
Captain Blood	49.95	39.95	Gauntlet II	44.95 -
Charlie Chaplin	44.95	29.95	Giant Killer - maths adventure	49.95 -
Chicago 30's	39.95	29.95	Gnome Ranger	44.95 29.95
Chubby Gristle	44.95	29.95	Gm. Gooch's Cricket	29.95 -
Chuck Yeager's Adv. Fit. Trainer	54.95	-	Guerilla Wars	44.95 29.95
Classic Quest Adventures:			GunShip	59.95 49.95
Goblin Towers (mod.)	49.95	-	H.A.T.E.	39.95 29.95
Forestland (hard)	49.95	-	Head over Heels	- 29.95
Witch Hunt (very hard)	49.95	-	Hopping Mad	34.95 34.95
Cluedo	39.95	29.00	Hot Shot	37.95 29.95
			Human Killing Machine	39.95 29.95
			Hunt for Red October	- 39.99
			Impact	49.95 -
			Impossible Mission II	39.95 29.95
			Incredible Shrinking Sphere	44.95 29.95
			Ingrid's Back	49.95 34.95
			Inside Outing	44.95 29.95
			Iron Lord	49.95 39.95

CPC - continued

Jack the Ripper	44.95	29.95
Knight Orc	49.95	34.95
Lancelot	49.95	39.95
Last Duel	-	29.95
Last Ninja 2	44.95	29.95
LED Storm	44.95	29.95
Live and Let Die	39.95	29.95
Living Daylights	49.95	32.95
Mad Mix - Pepsi Challenge	44.95	29.95
Mach 3	32.95	24.95
Major Motion	44.95	29.95
Mercenary Compend. (2 games)	29.95	19.95
Mega Apocalypse	34.95	34.95
Monopoly	39.75	29.00
Motor Massacre	44.95	29.95
New Zealand Story	39.95	29.95
Nigel Mansell's Grand Prix	49.95	35.95
Night Raider	44.95	29.95
Not a penny more...	49.95	-
Operation Wolf	44.95	29.95
Outrun	-	29.95
Overlander	39.95	29.95
Pacland	44.95	29.95
Pacmania	44.95	29.95
Pegasus Bridge	34.95	29.95
PHM Pegasus	34.95	34.95
Professional 4 Soccer Simulator	34.95	24.95
Pro Tennis 3-D	24.95	-
Psycho Pigs	44.95	29.95
Purple Saturn Day (Capt. Blood II)	39.95	29.95
Raffles	39.95	26.95
Rambo III	44.95	29.95
Real Ghostbusters	39.95	29.95
Red Heat	39.95	29.95
Renegade 3	39.95	29.95
Return of the Jedi	-	29.95
Robocop	44.95	29.95
Rolling Thunder	-	29.95
Roy of the Rovers	44.95	29.95
R-Type	44.95	29.95
Running Man	39.95	29.95
Run the Gauntlet	39.95	29.95
Sapiens	39.95	29.95
Savage	39.95	29.95
Scalextric	-	29.00
Scrabble de luxe (6128)	44.95	-
Scrabble (standard)	39.75	29.00
SDI	39.95	29.95
Silk Worm	49.95	-
Skweek		
Slaine	35.95	-
Skate Crazy	44.95	29.95
Sorcerer Lord	44.95	29.95
Space Racer (Space jet bikes)	32.95	-
Star Wars	49.95	35.95
Street Fighter	44.95	29.95
Super Scramble	39.95	29.95
Technocop	44.95	29.95
Terramex	34.99	29.99
Tetris	34.99	29.99
Thunder Blade	44.95	29.95
Thunderbirds	39.95	29.95
Time Scanner	39.95	29.95
Tiger Road	-	29.95
Titan	39.95	-
Total Eclipse	44.95	29.95
Train, The	44.95	29.95

CPC - continued

Trivial Pursuit		
<i>Young Players edition</i>	-	22.95
<i>Baby Boomer edition</i>	27.95	22.95
Trivial Pursuit - a new beginning	42.95	35.95
Turbo Cup	39.95	29.95
Typhoon	44.95	29.95
Vigilante	39.95	29.95
Vindicator, The	-	29.95
Vixen, The	34.95	-
Wanderer 3-D	39.95	29.95
WEC Le Mans	44.95	29.95
Wizard Warz	44.95	29.95
World Class Leaderboard	44.95	-
Wolfman	44.95	29.95
Yes Prime Minister	49.95	39.95

BLOCKBUSTER BUDGETS

Activator	19.95	12.95
Advanced Pinball Simulator	-	11.95
BMX Simulator	-	9.95
Bobby Bearing	19.95	-
Brainache	-	12.95
Core	-	12.95
Dizzy Dice/Joe Blade	22.00	-
Fruit Machine Simulator	-	9.95
Future Knight	19.95	12.95
Grand Prix Simulator	-	9.95
Jet Bike Simulator	-	21.95
Metal Army	-	12.95
Professional BMX Simulator	-	21.95
Professional Ski Simulator	-	9.95
Super Stuntman	-	9.95
Tanium	-	12.95
Trailblazers	-	12.95

COMPILED PACKS

Daley Thompson's Olympic Challenge (not 664s)		
10 Decathlon events	49.95	39.95
Elite Collection		
with Bomb Jack I and II, Frank Bruno's Boxing, Commando, Airwolf, Paperboy, Ghost 'n' Goblins, Battleships	49.95	39.95
Elite Six-Pack - Vol 1		
with Shockway rider, Eagle's Nest, ACE, Batty, Int. Karate and Lightforce	39.95	34.95
Elite Six-Pack - Vol 3		
with The Living Daylights, Ghost 'n' Goblins, Paper Boy, Dragon's Lair, Escape from Singes Castle (on tape only) and Enduro Racer	39.95	34.95
Fists 'n' Throttles		
with Thundercats, Ikari Warriors, Dragon's Lair, Enduro Racer and Buggy Boy	39.95	34.95
Four Smash Hewson Hits		
with Zynaps, Exolon, Ranarama and Undium Plus	39.95	29.95
Flight Ace		
with Air Traffic Control, ACE, Spitfire 40, Strike-force Harrier, Tomahawk, ATF	49.95	39.95
Game, Set and Match II		
with Super Hang-on, Basket Master, Ian Botham's Test Match, Championship Sprint, Steve Davies Snooker, Match Day II, Nick Faldo's Open and Track & Field events	49.95	39.95
Giants		
with Gauntlet II, Outrun, California Games, 720° and Rolling Thunder	49.95	39.95

CPC - continued

Gold, Silver, Bronze		
Three discs or tapes containing Summer Games 1 and 2 and Winter Games	59.95	49.95
In Crowd		
<i>compilation with Karnov, Gryzor, Barbarian, Platoon, Combat School, Crazy Cars, Target Renegade and Predator</i>	-	39.95
Karate Ace Compilation		
with Way of the Exploding Fist, Bruce Lee, Kung Fu Master, Avenger, Samurai Trilogy, Uchi Mata etc.	49.95	39.95
Konami Arcade Collection		
with Shao-Lin's Road, Jail Break, Mikie, Yie Ar Kung Fu I and II, Hypersports, Green Beret, Nemesis, Jackal and Ping Pong	49.95	39.95
Leaderboard Par 3		
with Leaderboard, Leaderboard Tournament, and World Class Leaderboard	52.95	42.95
Live Ammo Compilation		
with Green Beret, Rambo, Top Gun, Army Moves & Great Escape	49.95	39.95
Magnificent Seven Compilation		
with Wizball, Short Circuit, Arkanoid, Head over Heels, Great Escape, Cobra, Franki goes to Hollywood + FREE Yie Ar Kung Fu	-	39.95
Special Action		
with Daley Thompson's Olympic Chall., Driller, SDI, Capt. Blood and Vindicator		
Straight Six		
Loriciel's compilation with 3D Fight, Billy, Soccer, MGT, Flash and ZOXX2099	29.95	19.95
Supreme Challenge		
<i>compilation with Elite, Sentinel, Tetris, ACE II and Starglider</i>	49.95	39.95
Taito's Coin Op Hits		
with Rastan, Arkanoid 1, Arkanoid 2, Slap Fight, Bubble Bobble, Legend of Kage, Renegade and Flying Shark.	-	39.95
TAU Games + (6128s only)		
Dominoes, Snakes and Ladders, Mah-Jong, 3-D Noughts & Crosses, Trucking, Tycoon plus Graphic Designer and Sprite Designer	32.95	-
Ten Mega Games Vol 1		
with North Start, Cybernoid, Deflektor, Triaxos, Blood Brothers, Mask 2, Tour de Force, Hercules, Blood Valley, Masters of the Univ.	44.95	39.95
Time and Magik trilogy (disc for 128k only)		
Lords of Time, Red Moon and Price of Magik	49.95	39.95
We are the Champions		
with Renegade, Barbarian, SuperSprint, Rampage and International Karate	49.95	39.95
AMSTRAD USER YEAR DISCS		
<i>Containing all the monthly type-ins published</i>		
Year Disc 1 - Issues 1 to 12	50.00	-
Year Disc 2 - Issues 13 to 16	22.50	-
Year Disc 3 - Issues 17 to 20	25.00	-
Year Disc 4 - Issues 21 to 24	25.00	-
Year Disc 5 - Issues 25 to 28	25.00	-
Year Disc 6 - Issues 29 to 32	25.00	-
Year Disc 7 - Issues 33 to 36	25.00	-
Year Disc 8 - Issues 37 to 40	25.00	-
Year Disc 9 - Issues 41 to 44	25.00	-
Year Disc 10 - Issues 45 to 48	25.00	-

CPC - continued

Year Disc 11 - Issues 49 to 52	25.00	-
<i>Separate tapes for each issue's type-ins are also available: each</i>		
		5.00

SERIOUS SOFTWARE

Advanced Art Studio (Rainbird)		
Graphics package (128k only)	69.95	-
Brainstorm - ideas and reporting system (6128s only)	99.00	-
Cardbox - card index system (6128s only)	129.00	-
Cardbox Plus - enhanced version of Cardbox (6128s only)	199.00	-
Extra Extra - a disc full of ready made graphics, fonts and clip art compatible with Stop Press	89.00	-
Masterfile III - the best relational database system (128k only)	109.00	-
Mastercalc 128 - spreadsheet program for 6128s (or 464 with disc drive and expansion)	99.00	-
Matrix - spreadsheet with text editing facilities, database, mail merging etc.	79.95	-
Mini Office II	59.00	49.00
Money Manager - powerful cash book program	59.95	-
Personal Excellence Package - High quality Mental performance analyser	109.00	-
Plan-It - desktop organiser	39.95	-
Print Master Plus - create your own Banners, Letterheads, Signs, Calendars or Greeting Cards with graphics or borders supplied. (Runs under CP/M Plus only)	59.95	-
Print Master Art Gallery 1 - 140 pictures including holidays, animals, sports office etc.	50.95	-
Print Master Art Gallery 2 - 140 pictures including ornamental letters, flags, people	50.95	-
Protext - high speed w/p	89.95	-
Protext Filer - pop-up database module for Protext. (Requires Promerge & Protext)	69.95	-
Protext Office - pop-up add-ons for Protext including mailmerge and invoice generator. (Needs Promerge & Protext)	99.95	-
Prospell - spell checker	79.95	-
Promerge - mail merger	79.95	-
Stockmarket - monitors shares etc.	49.95	-

STOP PRESS

The ultimate Desktop Publishing package for CPC owners. Combine text and graphics with 'what you see is what you get' facilities. The ideal publishing software solution for home enthusiasts, schools, societies and small businesses. (Stop Press needs 128k)

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

Tasword 464		48.00
Tasword 464/D	63.00	-
Tasword 6128	63.00	-
Tas-spell	45.00	-

CPC - continued

Tasprint	36.00	26.00
Tascopy	36.00	26.00
Tasdiary	36.00	-
Tas-sign	69.00	-
Touch 'n' Go - Typing tutor (6128s only)	69.00	-
Ultrabase - easy database	69.95	49.95

EDUCATIONAL

From SCHOOL SOFTWARE

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

From LCL SOFTWARE

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

From FERNLEAF SOFTWARE

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

1. Treasure/Perfume Hunter (7-10)	49.95	39.95
2. Fletcher's Castle/Raider (8-12)	49.95	39.95
3. Thorn Sea/Ferry Captain (9-13)	49.95	-

From FUN SCHOOL: three discs in the series each containing 10 educational programs.

Vol 1 - ages 2 to 5	29.95	-
Vol 2 - ages 5 to 8	29.95	-
Vol 3 - ages 8 to 12	29.95	-

(All reviewed Issue 48 - Jan '89)

From DATABASE EDUCATIONAL SOFTWARE:

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

Fun School 2 - Under 6	34.95	24.95
Fun School 2 - 6 to 8	34.95	24.95
Fun School 2 - Over 8	34.95	24.95

The Magic Sword - Full colour reading book and complementary child's adventure

	39.95	-
Three Bears - graphic adventure to improve logic, deduction and reasoning	34.95	-

PERIPHERALS

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

150.00

COMPUTER/TV MODULATOR CONVERTER

This Amstrad unit (MP3) allows a CPC colour monitor (CTM644 only) to be used as a colour television - all you need to connect is a TV aerial to watch your favourite stations

149.00

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

CPC - continued

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

199.00

MOUSE MATS - keeps Mouse clean

19.95

RS232 Serial Interface - for 464/664/6128

229.50

64k Memory Expansion (464/664)

Converts the 464 into a 6128 (except for the ROMs) and gives 128k of memory. Is supplied with bank switching software in the form of RSXs to use the second 64k RAM as storage for screens, windows, arrays and variables. Allows the use of CP/M Plus as supplied on the 6128.

149.00

256k Memory Expansion (464/664)

Converts the 464 into a 6128 (except for ROMs) and gives a total memory of 320k. Is supplied with bank switching software in the form of RSXs. The 256k can store 16 full 16k screens or four extra banks of 64k. Allows the use of CP/M Plus.

289.00

256k Silicon Disc System (464/664)

Provides 256k of RAM disc accessible many times faster than the conventional drive and with a greater disc capacity. It can be logged on as drive B or in a two drive system as drive C. Data can be transferred onto the silicon disc from a normal disc or from RAM, application programs can then work on the data at vastly increased speed. Will accept all normal disc commands such as LOAD, SAVE, CAT etc.

329.00

256k Memory Expansion (6128)

289.00

256k Silicon Disc System (6128)

329.00

UTILITIES

Disc Demon - comprehensive menu driven disc utilities

69.95

Model Universe - 3D rotating drawing program

54.95

Rampak - nearly fifty machine code subroutines

44.95 37.95

Supersprites - sprite designing and control program

29.95 19.95

System X - adds over 40 new Basic extension commands

29.95 19.95

JOYSTICKS

STAR CURSOR - very tough, all Australian design and manufactured joystick with three year guarantee. Fully microswitched, fire buttons on base and handle. Adjustable 4- or 8-way action.

54.95

WINNER 220 - a really robust joystick with built-in precision control. Fully micro-switched with two fire buttons on the base and two on the stem for fast and furious action

34.95

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

39.95

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

29.95

NEW KONIX NAVIGATOR - hand-held joystick with microswitch precision control, steel shaft and 12 month guarantee.

39.95

CPC - continued

MISCELLANEOUS

Screen Filter	29.95
Dust Covers - Australian made vinyl fabric dust covers in light grey colour for:	
464 monitor and keyboard	35.00
6128 monitor and keyboard	35.00
DMP2000/2160/3160 Printer	17.00
Ribbons	
Black Nylon for DMP 2000/3000/3160	19.95
Black Nylon for DMP4000	19.95
3" drive cleaning kit	19.95
CF-2 3" discs each	7.25
Joystick Splitter Cable - to allow the use of two joysticks through the single joystick port of the CPCs (not simultaneously)	19.50
CPC6128 'Seal 'n' Type' Keyboard protector	
Stops damaging spills etc.	29.95

Amstrad PCW Range 8256, 8512 and 9512

(unless otherwise stated)

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

GAMES

Academy (Tau Ceti II) \$	65.95
Armageddon Man	57.95
Catch 23	57.95
Classic Invaders (Space Invaders style)	29.95
Classic Quest Adventures:	
Goblin Towers (moderate)	49.95
Forestland (hard)	49.95
Witch Hunt (very hard)	49.95
Corruption	59.95
CP Compilation - with 3-D Clock Chess, Backgammon, 3-D Draughts and Bridge 2000 all on one disc	59.95
Distractions: 3 graphics games compilation:	
On the Run, 2112 AD and Nexor \$	59.95
Double T Patience - compilation of six frustrating games including Kuala Lumpur, Poker Patience and Fourways	64.95
Giant Killer - maths adventure 10 to adult	54.95
Graham Gooch Cricket (Limited Overs & Test Match)	49.95
Guild of Thieves	69.95
Gnome Ranger	59.95
Head over Heels	57.95
Heathrow ATC/Southern Belle	57.95
Ingrid's back	59.95
Knight Orc	59.95
Lancelot	59.95
Living Daylights	49.95
Match Day II - animated soccer action	57.95
Mindfighter	65.95
Pawn, The	69.95
Return to Doom (Topologika adventure)	54.95
Scrabble de luxe	65.95
Steve Davis' Snooker	54.95
Strike Force Harrier	49.95
Time and Magik Level 9 trilogy: Lords of Time, Red Moon and Price of Magik	54.95
Tomahawk: helicopter simulation	49.95

PCW - continued

World of Soccer - international Soccer management simulation 59.95

PUBLIC DOMAIN DISCS 17.50

PCW YEAR DISC

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

EDUCATIONAL

Better Maths (12-16 yrs)	39.95
Better Spelling (12-16 yrs)	39.95
Biology (12-16 yrs)	39.95
Chemistry (12-16 yrs)	39.95
Giant Killer - maths adventure 10 to adult	54.95
Magic Maths (4-8 yrs)	39.95
Maths Mania (8-12 yrs)	39.95

PUBLISHING

Desk Top Publisher	99.00
Newsdesk International	89.00

STOP PRESS

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

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

DATABASES

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

MISCELLANEOUS

Brainstorm - tool for structuring raw ideas in a logical manner 99.00

Daatafax Personal Organiser Gift Pack from Kempston - with software, stylish binder, subject tabs, and starter stationery 149.00

Datstore II - menu-driven customised report generator, mailing list and label printer. Can be used with type styler Supertype II. 89.95

FLIPPER 2 - splits your PCW (8256, 8512 or 9512) memory into two environments and lets you flip between them, eg. between CP/M and Loco2. Not suitable for LocoScript 1. 89.95

Graphics, the Universe and everything... This latest version (2.0) provides the means to create professional graphics output and more. Source code included (All PCWs) 75.00

Lightning Basic Plus - turbo charge your Mallard Basic (all PCWs) 75.00

Master Paint - deluxe graphics program, for use with either mouse or keys 59.95

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

PCW - continued

Money Manager Plus - cashbook/personal accounting 99.00

NewWord2 - only one available just 100.00

Personal Excellence Package - High quality mental performance analyser 109.00

Plan-it - desktop organiser, plan budgets, sort files etc. 39.95

Print Master Plus - create your own Banners, Letterheads, Signs, Calendars or Greeting Cards with graphics or borders supplied. (Runs under CP/M Plus only) 59.95

Protex Filer - pop-up database module for Protex 69.95

Protex Office - as Protex Filer but with mail-merge and invoice generator module 99.95

Protex PCW 179.99

Prospell PCW - spellchecker for most word processors incl. Wd/Star and LocoScript 89.95

Scratchpad Plus spreadsheet 99.00

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

Stockmarket - watch your investments 79.95

Supertype II - 8 new different typestyles for use with all CP/M, LocoScript 1/2, LocoMail and Mini Office Professional files 39.95

Tait Accounting System - small business Debtors, Creditors and Invoicing 129.00

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

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

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

Touch 'n' Go - typing tutor 69.00

PERIPHERALS

8256/512 'Seal 'n' Type' Keyboard protector Stops damaging spills etc. 29.95

9512 'Seal 'n' Type' Keyboard protector Stops damaging spills etc. 29.95

CPS8256 - serial interface for PCWs for communications or adding extra printers 145.00

AMX MOUSE plus interface - the most popular and sought after peripherals for your PCW, especially with StopPress 165.00

MM3 Margin Maker - Single sheet locator and aligner for PCW 8000 printers 34.95

PCW Joystick Interface from Kempston T.O/S

SCANNER - Master Pack - a scanning device which attaches to a PCW printer head to copy photos or other art work, Master Scan software and Master Paint, a powerful graphics package. Compatible with Desktop Publisher, FSE and Newsdesk International (8256 and 8512s only) 279.00

PCW - continued

SCREEN FILTER 29.95

DUST COVERS

Australian made vinyl fabric dust covers complete for the following PCWs:

8256/8512 monitor, keyboard and printer 55.00
9512 monitor, keyboard and printer 60.00

TASMAN RANGE

Tasword 8000 65.00
Tas-spell 8000 45.00
Tasprint 8000 39.00
Tas-sign 8000 69.00

CONSUMABLES

PCW 8000s Printer Ribbons

Black Carbon/Multistrike or Nylon 19.95
Coloured Nylon - Blue, Red or Green 24.95

PCW 9000s Printer Ribbons

Black Carbon/Multistrike 15.95
Black Nylon 19.95

Daisy Wheels for 9000s

Prestige Pica 10; Prestige Elite 12; Courier 10;
Cubic Pica 10; Mini Gothic 15/Micro; Orator 90%/10;
Letter Gothic 10/12; Script 12 each 19.95

3" disc drive cleaning kit 19.95

CF2 3" discs each 7.25

LOCOMOTIVE PRODUCTS

LocoScript 2 (v. 2.26) complete with manual 87.00

LocoScript2 (v. 2.26) Disk only 49.95

LocoScript 2 + LocoSpell 130.00

LocoMail2 105.00

LocoSpell2 75.00

The following are for PCW 8000s using LocoScript 2.12 and above (Please state 8000s):

24 Pin Printer Driver - suitable for most 24 pin print head printers attached to 8000s 64.95

Printer Character Set Disc for defining new character sets 59.95

Extra Printer Drivers Disc containing a PrinterFile for every LocoScript2 compatible printer 59.95

Keyboards Disc to configure LocoScript2 to use American, Canadian, Danish, English, French, German, Italian, Norwegian, Spanish or Swedish keyboard layouts with any nationality of LocoScript2. 59.95

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

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

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

LocoKey to customise your keyboard 59.95

Locomail Sorting Program 39.95

Locomail2 Examples disc 17.50

LocoMail2 New User Guide 54.95

The following are for PCW 9512s (Please state 9512 when ordering):

24 Pin Printer Driver - suitable for most 24 pin print head printers attached to the 9512 64.95

PCW - continued

Printwheels Disc allows the correct printing of the characters from any printwheel supplied for the built-in printer. 59.95

Locofile/9000 - the resident 'pop-up' database for LocoScript2 on the 9512 110.00

Keyboards Disc to configure LocoScript2 to use American, Canadian, Danish, English, French, German, Italian, Norwegian, Spanish or Swedish keyboard layouts with any nationality of LocoScript2. 59.95

Printer Driver and Character Sets supports a wide range of printers and printwheels used as an alternative to the built-in printer 59.95

Locomail Sorting Program 39.95

Locomail2 Examples disc 17.50

**Amstrad PC Range
PC1512/1640,
PPC512/640 and
PC2000 series
(unless otherwise stated)**

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

GAMES

221b Baker Street 49.95

2000 leagues under the sea 39.95

3-D Helicopter Simulator ‡ 52.95

4 x 4 - Off-Road Racing † 49.95

4th and Inches (Grid Iron) 44.95

4th and Inches Construction Set 35.95

Abrams Battle Tank 42.95

ACE 2 33.50

Action Service 54.95

Airborne Ranger † 59.95

After Burner 69.95

Alf 39.95

Amazon 32.95

Annals of Rome ‡ 64.95

Apollo 18 59.95

Auto Duel 59.95

B-24 69.95

Backgammon 24.95

Battle Chess (needs 640k) ‡ 69.95

Battle Hawks 1942 ‡ 64.95

Battle Tech ‡ 61.95

Batman 69.95

Beyond Zork 59.95

Billiards 52.95

Bionic Commandos 54.95

Black Cauldron ‡ 49.95

Black Jack Academy † 49.95

Blockbuster 48.50

California Challenge (Test Drive 2 add-on) 39.95

California Games † 49.95

Captain Blood † 69.95

Caveman UGH-lympics † 64.95

Charlie Chaplin 69.95

Chuck Yeager's Adv. Flt. Trainer † 49.95

Circus Games † 59.95

Classic Quest Adventure Series: Forestland 39.95

PC - continued

Witch Hunt 39.95

Catacombs 39.95

Cornucopia 39.95

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

Classic Invaders 29.95

Computer Yahtzee ‡ 29.95

Concentration 49.95

Corruption 59.95

Crazy Cars 2 † 59.95

Crossbow ‡ 59.95

Crusade in Europe 59.95

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

Daley Thompson's Olympic Challenge 61.95

Dark Castle 49.95

Dark Side 54.95

Decision in Desert 59.95

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

Demon Stalkers 54.95

Destroyer † 49.95

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

Double Dragon 61.95

Dragonworld 32.95

Driller 59.95

Earl Weaver's Baseball 47.95

Earl Weaver's Baseball Stats 34.95

Echelon 54.95

Elite 69.00

Emmanuelle (AO) 39.95

Empire 47.95

F-15 † 59.95

F-16 Falcon † 62.95

F-16 Combat Pilot † 59.95

F-19 Stealth Fighter 109.95

Fahrenheit 451 32.95

Family Feud 49.95

Fast Break (Basketball) 59.95

Fire and Forget † 69.95

Fire Power ‡ 47.95

First Expedition † 49.95

Fish 69.95

Flippit 39.95

Galactic Conqueror † 69.95

Games, The - Summer Edition † 49.95

Gnome Ranger 59.95

Gold Rush † 52.95

Gone Reel Fishin' ‡ 61.95

Grand Prix Circuit ‡ 59.95

Gunship † 69.95

Hardball 49.95

Heavy Metal 52.95

Hitch Hiker's Guide to the Galaxy 64.95

HKM (Human Killing Machine) 59.95

Hunt for Red October 49.95

Impossible Mission II † 49.95

Ingrid's back 59.95

Inside Trader 59.95

Into the Eagle's Nest 48.50

Jack Nicklaus Golf 59.95

Jack Nicklaus Courses Vol 1 39.95

Jeopardy 49.95

Joan of Arc 52.95

Kampfgruppe 69.95

Kings Quest 1 ‡ 49.95

Kings Quest 2 ‡ 49.95

Kings Quest 3 ‡ 49.95

Kings Quest 4 (9x5.25" and 4x3.5") ‡ 79.95

PC - continued

PC - continued

PC - continued

• Knight Force †	69.95
• Knight Orc	59.95
• Kult	59.95
• LA Crackdown †	39.95
• Lancelot	59.95
• Laptop Computer Chess 3.5" only	52.95
• Leisure Suit Larry (AO) #	59.95
• Leisure Suit Larry II (AO) #	59.95
• Lombard R.A.C Rally	59.95
• Man Hunter - New York #	64.95
• Mean 18 Famous Courses 3/4	29.95
• Millenium 2.2	59.95
• Mini Putt	49.95
• Moto Cross #	59.95
• Murder in Venice	59.95
• Nebulus	49.95
• Night Raider	59.95
• Nine Princes in Amber	32.95
• Nord & Bert couldn't make head nor tail...	47.95
• Outrun	69.95
• Pawn, The	69.95
• Personal Nightmare †	79.95
• Peter Rose Pennant Fever	47.95
• PC Gold Hits Compilation (for CGA)	
• <i>with Infiltrator, Bruce Lee, Ace of Aces</i>	
• <i>and World Class Leaderboard</i>	49.95
• Perry Mason - Mandarin Murders	32.95
• Phantasie 1	69.95
• Phantasie 3	69.95
• PHM Pegasus †	59.95
• Pinball Wizard	69.95
• Pirates	59.95
• Police Quest 1 #	59.95
• Police Quest 2 #	59.95
• Portal	47.95
• Pools of Radiance (D. & Dragons)	42.95
• President Elect	69.95
• President is Missing	59.95
• Project Space Station	49.95
• Prophecy	61.95
• PT-109	64.95
• Purple Saturn Day † (Capt. Blood 2)	59.95
• Quadralien	59.95
• Quest for Timebird	69.95
• Rack'em (Pool, Billiards, Snooker)	54.95
• Rambo III	69.95
• Reach for the Stars †	49.95
• Red Lightning	64.95
• Rendezvous with Rama	32.95
• Robocop	59.95
• Sapiens	69.95
• Scavengers	54.95
• Scrabble de luxe	52.95
• Scruples	43.95
• Serve and Volley	54.95
• Sherlock	61.95
• Shiloh	69.95
• Shogun	52.95
• Silent Service	59.95
• Silicon Dreams	59.95
• Silpheed #	52.95
• Skweek †	59.95
• Solomon's Key	69.95
• Sorcerer Lord	59.95
• Space Max	69.95
• Space Quest 1 #	59.95
• Space Quest 2 #	59.95

• Space Quest 3 #	52.95
• Speed Ball	64.95
• Spitfire Ace	59.95
• Star Command	79.95
• Star Trek: Promethian	49.95
• Star Quake (Amstrad j/stick port only)	59.95
• Star Ray	59.95
• Steel Thunder	61.95
• Stellar Crusade	69.95
• Star Glider	59.95
• Station Fall	47.95
• Street Sports Baseball †	49.95
• Street Sports Basketball †	49.95
• Street Sports Soccer †	49.95
• Sub Battle Simulator †	49.95
• Super Cars (Test Drive 2 add-on)	39.95
• Superman	69.95
• Takedown (Wrestling)	59.95
• Teenage Queen (Strip Poker) AO	49.95
• Technocop	49.95
• Test Drive 1	59.95
• Test Drive 2 †	61.95
• Tenth Frame	50.00
• Tetris	62.95
• Thexder #	59.95
• Thud Ridge	54.95
• Thunderchopper †	89.95
• Time and Magik	59.95
• Titan	59.95
• Train, The	54.95
• Ultima V	59.95
• UMS (War game simulator)	59.95
• Usurper, The	59.95
• War in Middle Earth	52.95
• Wargame Construction Kit	69.95
• WEC Le Mans	69.95
• Wheel of Fortune	44.95
• Where in Europe is Carmen Sandiego †	64.50
• Where in the world is Carmen Sandiego †	64.50
• Where time stood still	61.95
• Who framed Roger Rabbit †	54.95
• Winter Games †	49.95
• Wizardry 5	79.95
• Wizard's Crown	69.95
• World Class Leaderboard Golf value pack	64.95
• Zac McCracken & the alien mindbenders	64.95
• Zork Trilogy (Zork 1, 2 and 3)	69.95
<u>HINT BOOKS</u>	
• Kings Quest 1	13.95
• Kings Quest 2	13.95
• Kings Quest 3	13.95
• Kings Quest 4	13.95
• Leisure Suit Larry 1	13.95
• Manhunter - New York	13.95
• Police Quest 1	13.95
• Police Quest 2	13.95
• Space Quest 1	13.95
• Space Quest 2	13.95
• Zork Trilogy (Zork 1,2 and 3)	24.95
<u>BUDGET GAMES</u>	
• Arcade 1: Pitfall, Artillery, Goob and X-Wing	14.99
• Arcade 2: Munchman, Bowling and Depth charge	14.99
• Arcade Bonanza: Frog, Pac-em, Tank and Red Alert	14.99

• Board Games	14.99
• Master Blaster: Paratrooper, Round 42 and Rockets	14.99
• Mind Games: Concentration, Magie, Hide-away and Mindscan	14.99
• Sink the Bismark: Computer Battleships and Naval Trivia	14.99
• Space Battles: Space War, Meteor Shower, Moon Lander, Space Zombies	14.99
• Space Games	14.99
• Strategy Games: Ruler, Killer Bees, Engineer, Sabotage and Vampire	14.99
<u>EDUCATION</u>	
• Alphabet Zoo	59.95
• Better Maths (12-16 yrs)	39.95
• Better Spelling (9- Adult)	39.95
• Biology (12-16 yrs)	39.95
• Chemistry (12-16 yrs)	39.95
• Computerease - tutorial on PC	19.95
COMPUTEREASY EDUCATION SERIES:	
• Maths Climbers	18.95
• Mind Games	18.95
• Mr. DOS	18.95
• Read Easy	18.95
• Schultz Treasure	18.95
• Spell Castle	18.95
• Type and Learn	18.95
• Wordsearch 2000	18.95
• Cryptocube	59.95
• Decimal Dungeon	49.95
• Delta Drawing	52.95
• Fraction Action	49.95
FUN SCHOOL 2 SERIES: (Reviewed Jul 89)	
• Under 6	49.95
• 6 to 8	49.95
• Over 8	49.95
• Grammar Examiner	59.95
• In search of the most amazing things	59.95
• Kids on Keys	59.95
• Kidwriter	59.95
• Kindercomp	59.95
• Lex, Wizard of Words (Ages 10 to 99) #	39.95
• Magic Maths (4-12 yr) CGA	39.95
• Maths Mania (8-12 yr) CGA	39.95
• Maxi Maths (12-16 yrs)	39.95
• Micro Maths - advanced for Years 9-11 students	69.95
• Mixed up Mother Goose #	59.95
• Notable Phantom	59.95
• Number Fun 1 (5 to 15 yrs) #	34.95
ONCE UPON A TIME SERIES: for children (6 - 12) to write, edit and print their own book.	
• Volume 1	59.95
• Volume 2	59.95
• Physics (12-16 yrs)	39.95
• Race Car Arithmetic	49.95
• Remember!	89.95
• Sesame Street series - covers problem solving, predicting, logic & reasoning	
• Ernie's Big Splash (4-6 yrs)	39.95
• Astro Grover (3-6 yrs)	39.95
• Grover's Animal Ad (4-6 yrs)	39.95
• Big Bird's Delivery (3-6 yrs)	39.95
• Ernie's Magic Shapes (4-6 yrs)	39.95
• Pals around Town (4-6 yrs)	39.95
• Science & Engineering - examples	49.95

PC - continued

Ships Ahoy	59.95
Spellagraph	59.95
Spellakazam	59.95
Spelling Fun 1 (5 to 15 yrs) #	39.95
Ten Little Robots	49.95
Typing Tutor 4 #	62.95
Word Fun 1 (5 to 15 yrs) #	39.95
Where in Europe is Carmen Sandiego †	64.50
Where in the World is Carmen Sandiego †	64.50

BUSINESS

Ability Plus	299.00
Ability	199.00
Brainstorm	99.00
Business Dynamics - primer	39.95
Capital Budgetting	199.00
Cardbox PC	149.00
Cardbox PC Personal	349.00
Cardbox Plus Standard	895.00
Chartman - bus. graphics	129.00
Condor 1 Jnr	149.00
Corporate Finance	199.00
Desktop Accountant	450.00
Financial Accounting for non-Accountants	199.00
In-house accountant	169.00
MASTERFILE PC version 3 standard - the most popular relational database for Amstrad PCs and compatibles #	199.00
MASTERFILE PC version 3 full - the standard version with an integrated word processing module included #	269.00
Mini Office Personal - integrated database, wordprocessor, Spreadsheet and label printer (replaces M/O Professional)	99.95
Money Manager PC - cash book including graphics	79.00
Personal Excellence Package - a serious approach to assessing your thinking skills, IQ, mental performance and aptitudes	109.00
Personal Cardbox Plus	399.00
Protex PC	199.00
Protex Filer PC	69.95
Protex Office	99.95
Ram Jet Executive - gives PC1512 only a disc cache, print buffer, screen accelerator	189.00
Scratchpad Plus	99.00
SAGE SERIES (fully supported in Australia) †	
Bookkeeper	299.00
Accountant	449.00
Accountant (network version)	900.00
Accountant Plus	749.00
Accountant Plus (network version)	1200.00
Financial Controller	1149.00
Financial Controller (network version)	2500.00
Payroll (up to 999 employees)	599.00
Sales Force Management	199.00
Stockmarket - watch your shares	79.95
Tait Accounting - small business accounting with Debtors, Creditors and Invoicing	149.00
TBM (formerly ABC Business Pack) - an Australian supported integrated accounting and stock control package with many extras	499.00
Top Copy Plus - advanced word processing + macros	299.00
Twin Advanced - integrated spreadsheet (like Lotus), graphics and database	189.00

PC - continued

UTILITIES

Award Ware - certificates, banners, cards Designer	49.95
Credit Card Accounting System	29.95
DISCO Hard disk menu system - creates personalised menus, runs common DOS commands with one keypress.	99.00

EXPERT SERIES:

Disc Tools	39.95
Filer	39.95
Money Power	39.95
PC Protection	39.95
Perfect Typing	39.95
Personal Finance	39.95
Personal Forms	39.95
Personal Publisher	39.95
Personal Skills	39.95
Writer	39.95
File Rescue Plus	69.95

Home Organiser - with Inventory, Shopping list, Librarian and Planner	14.99
lankey Typing Tutor - crash course #	59.95
lankey Typing Tutor - for 2 finger typists #	59.95
Mail Shot Plus - with graphical layout	99.00
Personal Banking Reconciler	29.95
Personal Possessions Inventory d/base	29.95
Print Magic	49.95

Print Shop - over one million copies sold of this easy to use personal graphics package. Eight type styles, nine borders, dozens of pictures to create personal cards, signs etc. † 89.95

Print Shop Companion - adds a calendar to Print Shop (monthly and weekly formats) plus facility to edit existing P/Shop graphics † 79.95

Print Shop Graphic Libraries

Disk 1 - over 100 pictures for holidays, special occasions, sport, zodiac signs, animals †	49.95
Disk 2 - symbols for hobbies, occupations, travel, music and health †	49.95
Holiday Edtn - 70 graphics for Christmas, Hanukkah, New Year, 10 new typefaces, 14 borders & 12 full panel designs †	49.95

Print Power - multi fonts & borders 69.95

SPLASH - a VGA paint program with over 256000 colours which makes full use of the incredible high quality VGA graphics. 60 pattern and brush sizes, flip, stretch, fill, zoom, merge. Compatible with most DTP programs # 199.00

Tasword PC †	99.00
Tas-spell PC †	89.00
Tas-print PC †	89.00
Tas-sign PC †	89.00
Tascopy PC †	89.00

JOYSTICKS

Anko Precision Joystick: top of the range - with free floating or auto centring operation modes, dual axis trim controls for accurate control of cursor/aiming/movement, two fire buttons on base and one on stem and rubber feet for surface grip 49.95

Anko Standard Joystick: mid-range joystick with fire button on base and one on the stem, dual axis trim controls for accurate movement, rubber feet for surface grip 39.95

Junbo Joystick: the smallest in the range but just as accurate, with auto return centring and fine tuning to

PC - continued

adjust movement control, long life variable resistor control, two fire buttons, suitable for hand held control 29.95

KONIX Speed King - hand-held (in the left hand) for natural grip and total control. Microswitched twin fire buttons positioned under trigger fingers. Free or self centring solid steel shaft. Autofire feature. 49.95

MISCELLANEOUS

Disk Drive Head Cleaners	
3.5" for PPC, PC20 or PC2000s	17.95
5.25" for PC1512/1640	17.95

Joystick Games Card: Easily fitted - allows the use of an IBM style joystick on your Amstrad 49.95

PC1512/1640 'Seal 'n' Type Keyboard Protector Stops damaging spills and dust 29.95

MOUSE DRIVER for Microsoft windows (allows the use of Amstrad with MicroSoft products) 59.95

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

DUST COVERS

Australian made vinyl fabric dust covers in light grey for the following equipment: (please state your printer)

PC1512 or PC1640 monitor and keyboard	36.00
PC20 system/keyboard	18.00
PC2086 monitor/system and keyboard	39.00
PC2286/2386 mon/system and keyboard	39.00
DMP3160 or LQ3500	17.00
DMP4000 or LQ5000	30.00
Epson LX-800 or Star NX-1000	17.00

DISK DRIVES/CARDS

FOR PC1512 or PC1640

(The PHDs also suit PC2086s without hard disks)	
20mb Portable Hard Drive on a card *	849.00
30mb Portable Hard Drive on a card *	929.00
40mb Portable Hard Drive on a card *	1249.00
20mb Internal Hard Disc *	649.00

* Add \$15 for certified post and insurance

720k 3.5" int. disc drive **	289.00
720k 3.5" Ext. disc drive **	385.00
360k 5.25" Disc drive kit **	375.00

FOR PC20 and PC2086

360k 5.25" External disc drive **	315.00
720k 3.5" External disc drive **	315.00

FOR PC2286 and 2386

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

** Add \$10 for certified post and insurance

TAPE STREAMERS

Tape Streamer for the PC2086 **	1150.00
Tape Streamer for the PC2286/2386 **	1150.00

** Add \$15 for certified post and insurance

MICROSOFT RANGE

Chart	550.00
Excel for Windows #	835.00
Flight Simulator †	95.00
Learning DOS †	95.00
Multiplan #	345.00
Project #	695.00
QuickBasic Compiler †	185.00
QuickC †	185.00

PC - continued

Windows 286 †	195.00
Windows 386 #	345.00
Word †	675.00
Works #	295.00
Word Exchange †	115.00

BOOKS for all Amstrads

Please note that there is a P&P charge of \$5.00 on all orders containing books over a value of \$20.00. This should be added to your remittance. Overseas orders please add \$10.00

CPC TITLES

Advanced User Guide	21.95
Amstrad Compendium	23.95
Childs' Guide to the Amstrad Micro	13.95
Disc System, The Amstrad CPC 464	28.95
Filing Systems and D/Bases for the CPC464	30.95
Graphics Programming Techniques	25.95
High Energy Programs for the Amstrad	9.95
Ins and Outs of the Amstrad	23.95
Machine Code for Beginners	21.95
Machine Lang. for Absolute Beginner	23.95
Practical "C"	29.65
Ready made Machine Lang. routines	23.95
Starting Basic - Bk 1	19.95
Sound, Graphics & Handling - Bk 2	24.95
Structured Programming on 464/664/6128	30.95
Watson's Notes Series (for younger readers)	
Book 1: First Steps in Basic	17.95
Book 2: Exploring Basic	17.95
Book 3: Computer Games	17.95
Whole Memory Guide - 464	30.95

LOGO TITLES

LOGO Pocketbook	17.95
Practical Logo on the Amstrad	27.95
Using DR Logo on the Amstrad	37.95

PCW TITLES

Advanced LocoScript on the PCWs	39.50
Desktop Publishing with the PCW	35.95
All in one business computing with the PCW and Mini Office Professional	37.95
Locomail User Guide - new version	54.95
LocoScript Pocketbook	17.95
LocoScript2 and the Amstrad PCW Computers - a complete guide	43.00
LocoScript2/LocoMail/LocoSpell: assignments and solutions	32.95
Mallard Basic - Introduction and Reference by Locomotive Software	39.50
Mastering the Amstrad PCW 8256/8512	32.25
Pocket Wordstar	30.95
PCW Machine Code	39.95
Program your PCW	32.95
Using Databases on the PCW	35.95
Word Processing with the PCW	27.95

CP/M TITLES

CP/M Plus Handbook - Operator's and Programmer's guide for the Amstrad CPC6128 and PCW 8256 and PCW 8512 (Soft 971) by Digital Research Inc. Over 500 pages of everything you need to know about CP/M Plus. Includes a GSX supplement	52.95
Choosing & Using CP/M Business Software (for PCWs)	35.95

BOOKS - continued

PC TITLES

Abacus Books for Beginners:	
GW-Basic for beginners	36.95
Microsoft Works for beginners	36.95
MS-DOS for beginners	36.95
Unix and Xenix for beginners	36.95
Ventura for beginners	36.95
Amstrad PC1512 - User's Guide	32.00
Amstrad PPC Companion	36.95
Adv. Basic2 Programs on the Amstrad PC	35.95
Basic2 User Guide by Locomotive Software	39.95
Business Computing with the PC1640	44.00
Business Presentation	
Graphics on the PC1512	55.00
Communications with the Amstrad PC	44.00
DOS Plus Reference Guide for PC-DOS, MS-DOS and CP/M Programmers from Digital Research	75.00
Exploiting MS-DOS on Amstrad PC and IBM compatibles	46.65
Introducing Lotus 1-2-3	16.95
Lotus Agenda	39.95
PC1640 Technical Reference Manual	49.50
Program your PC	T.O/S
Simple Basic2 Programs on the Amstrad PC1512/1640	29.95
Using the Amstrad PC 1512/1640	29.95
Using Ability on the Amstrad PC	34.95
Using DOS Plus on the Amstrad PC1512	39.95
Using desktop publishing on the Amstrad PC	29.95
Using GEM on the Amstrad PC1512	55.00
Using MS-DOS on the Amstrad PC1512/1640	29.95
Using Printers on the 1512/1640	29.95
Word Processing using GEM Write	45.95

OTHERS

Computer Viruses	49.95
Computers and the Law	65.00
Introducing dBase	14.95
Managing your Computing: a pract. l h/bk	50.00
Microcomputer - troubleshooting & repair	48.95

SELF-TEACH COURSES

Complete introductions comprising audio tapes, disks and tex.

MACHINE SPECIFIC

Amstrad PC 1512 and 1640	59.95
Amstrad PPC 512 and 640	59.95
Amstrad PC 2086	59.95
Amstrad PCW 8256/8512 with LocoScript 1	59.95
Amstrad PCW 9512 with LocoScript 2	59.95

OTHER COURSES

CP/M Computing on the PCW	59.95
Complete intro to IBM PC/XT/AT & compats.	59.95

BINDERS for magazines

BINDERS - in white vinyl with THE AMSTRAD USEF logo in silver on front and spine. Protects twelve copies	13.95
Price including postage...	

MAGAZINES

BACK COPIES of magazines

Back-copy prices include postage

THE AMSTRAD USER

Iss. 01 - Feb 85	Iss. 03 - Apr 85	Iss. 04 - May 85
Iss. 06 - Jul 85	Iss. 07 - Aug 85each 4.00
Iss. 10 - Nov 85	Iss. 11 - Dec 85	Iss. 12 - Jan 86
Iss. 13 - Feb 86	Iss. 14 - Mar 86	Iss. 15 - Apr 86
Iss. 16 - May 86	Iss. 17 - Jun 86	Iss. 18 - Jul 86
Iss. 19 - Aug 86	Iss. 20 - Sep 86	Iss. 21 - Oct 86
	each 4.50
Iss. 22 - Nov 86	Iss. 23 - Dec 86	Iss. 24 - Jan 87
Iss. 25 - Feb 87	Iss. 26 - Mar 87	Iss. 27 - Apr 87
Iss. 28 - May 87	Iss. 29 - Jun 87	Iss. 30 - Jul 87
Iss. 31 - Aug 87	Iss. 32 - Sep 87	Iss. 33 - Oct 87
	each 4.75
Iss. 34 - Nov 87	Iss. 35 - Dec 87	Iss. 36 - Jan 88
Iss. 37 - Feb 88	Iss. 38 - Mar 88	Iss. 39 - Apr 88
Iss. 40 - May 88	Iss. 41 - Jun 88	Iss. 42 - Jul 88
Iss. 43 - Aug 88	Iss. 44 - Sep 88	Iss. 45 - Oct 88
Iss. 46 - Nov 88	Iss. 47 - Dec 88	Iss. 48 - Jan 89
Iss. 49 - Feb 89	Iss. 50 - Mar 89	Iss. 51 - Apr 89
Iss. 52 - Apr 89	Iss. 53 - May 89each 5.25

AMSTRAD COMPUTER USER

(English imported mag.)

Jan/Feb 85	March 85	April 85
June 85	November 85	December 85
January 86	February 86	May 86
June 86	September 86	November 86
February 87	each 5.00
February 88	March 88	April 88
	each 5.50

MISCELLANEOUS

MINI SUPER CLEANER - a small hand-held vacuum and/or blower to clean out difficult to reach areas such as a keyboard. Small brush and pipette attachments supplied. Requires 2 x 1.5 volt batteries - not supplied 27.95

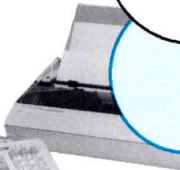
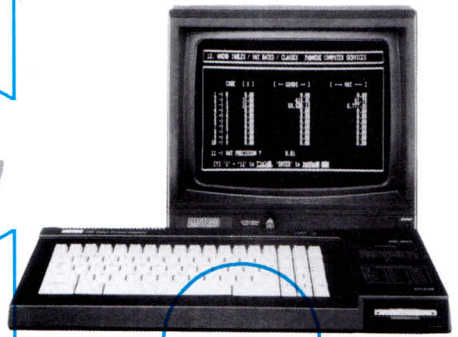
GIFT VOUCHERS

An ideal gift which allows the recipient to make his or her own choice of computer merchandise.

The Gift Vouchers are sponsored by Questor but can be redeemed for any item of the same value currently available in these or future mail order pages.

Any value of voucher can be purchased, but must be used through The Amstrad User Mail Order service or The Amstrad User Computer Shop, our retail outlet.

To order by mail, send your cheque, money order or credit card number with expiry date, along with your name and address (this is to where the voucher will be posted) to our Mount Waverley address shown on Page 57. You can also order on 03 233 9661.



THE AMSTRAD USER

Completes the picture every month.

Why trudge to the newsagent every month when you can receive twelve monthly issues of Australia's largest selling Amstrad magazine for the price of ten? Get in touch. Get The Amstrad User.

Please send me 12 monthly issues of The Amstrad User. I own/intend to own a _____

I would like: the Magazine only at \$42.50 Magazine plus cassette of programs appearing in that issue at \$80.00 (tapes are not suitable for PCW or PC owners)

I wish my subscription to start with the current issue or Please start at Issue No

I enclose a cheque or please charge my Bankcard, Mastercard or Visa for \$ _____

The number is _____ The card expires on _____

Name _____ Phone number _____

Address _____

_____ State _____ Post Code _____

Return this form to: THE AMSTRAD USER, 641 High Street Road, Mount Waverley, Victoria 3149 or ring (03) 233 9661 for further information.

For subscriptions to Papua New Guinea, New Zealand, Solomon Islands, Vanuatu or New Caledonia please add \$21 airmail. For Fiji, Brunei, French Polynesia, Indonesia, Kiribati, Malaysia, Nauru, Niue, Samoa, Singapore, Tokelau Islands or Tonga please add \$27 airmail.

MASTERFILE 8000

FOR ALL AMSTRAD PCW COMPUTERS

MASTERFILE 8000, the subject of so many enquiries, is now available through The Amstrad User from Campbell Systems in the UK.

MASTERFILE 8000 is a totally new database product. While drawing on the best features of the CPC versions, it has been designed specifically for the PCW range. The resulting combination of control and power is a delight to use.

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

A MASTERFILE hallmark is the provision of multiple, user-designed display formats. This flexibility remains, but now it's even easier. With MASTERFILE 8000 you design your formats "live"; no more questionnaires, just move your format effects around the screen using the cursor keys!

Record updating is even easier than before - just steer your cursor to any field on the screen and then insert/erase/alter as required.

Special options are provided for handling dates and surnames, and column totals can be generated.

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

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

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

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

Megalglomerate Ltd

Sales Contact : Martin McManis
 Telephone : 0245 654321
 Reference : MGL
 Date of last order : 14 Aug 86
 Value to date : £31,455.00

Mega House
 143-145 London Road
 Chelmsford
 Essex CM12 5DC

Ref	Maker	Model	Specification	Price ex VAT
C5001	Epson	FX85	100cps 40MLA 90col	£210
C5002	Epson	FX185	150cps 40MLA 132col	£410
C5003	Epson	FX100	100cps 40MLA 132col	£195
C5004	Epson	LX80	100cps 22col 90col	£435
C5005	Epson	LX80	100cps 30MLA 90col	£375
C5006	Epson	LX80	100cps 30MLA 132col	£275
C5007	Epson	LX80	100cps 40MLA 90col	£335
C5008	Epson	LX80	100cps 40MLA 132col	£225
C5009	Epson	LX80	100cps 40MLA 90col	£370
C5010	Canon	AS5	100cps 40MLA 90col Colour	£240
C5011	Canon	AS5	100cps 40MLA 132col	£410
C5012	Juki	SS10	150cps daisywheel	£250
C5013	Juki	SS20	30cps daisywheel	£350
C5014	Juki	6100	30cps daisywheel	£250
C5015	Juki	6200	35cps daisywheel	£1,795
C5016	Juki	6300	200cps 30MLA 132col	£2,700
C5017	Juki	6400	200cps 30MLA 132col	£1,500
C5018	Juki	DX	8 page min 84	£2,500
C5019	Fujitsu	DX	8 page min 84	£2,500
C5020	Fujitsu	LBP5A1	8 page min 84 graphics	£2,500
C5021	Canon	LBP5A2	8 page min 84	£2,500
C5022	Canon	Laser	8 page min 84 graphics	£2,500
C5023	HP	Laser	140cps 30MLA 90col	£285
C5024	HP	KP-810		
C5025	Taxan			

Customer Details and Invoices

British United Freight
 483 Western Avenue
 Gloucester
 GL9 5JN

Tel: 0452 6
 Contact: Mike H
 Ref: BUF

03: Display Options
 Steer using F
 Alter data DEL
 Erase data DEL
 Assign to set A
 First page B
 Next page ENTER
 Find key = 00 F
 Go to record number G
 Print P
 Print single record O
 Erase record E
 Insert new record I
 Show re-sequenced K
 Rotate format R
 Go top search S
 Exit to main menu X

Invoice	Tax point	Amount	Date paid	Comments
12004	20 Aug 87	£235.00	02 Oct 87	
12399	29 Aug 87	£98.00	02 Oct 87	
12450	01 Oct 87	£305.00		re
12453	21 Oct 87	£133.00		
12533	03 Nov 87	£1,004.50		
12538	10 Nov 87	£355.65		
12703	11 Nov 87	£200.00		
12782	11 Nov 87	£39.20		
12839	04 Dec 87	£883.55	04 Dec 87	Cash with order
Totals:		£3,253.90		

Date of invoice

Drive:A File:INVOICES Records:00017 Selected:00009 Key: Format:1

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

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

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

Send your order now to:
THE AMSTRAD USER
 641 High Street Road
 Mount Waverley
 Victoria 3149

Tel: (03) 233 9661

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