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Aussie Mag
for Amstrad owners

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Issue No. 46

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November 1988



- **More action tests on Games + BCD application + part two of custom character printing + heaps of Public Domain**
- **Review of AMS' STOP PRESS + Poker Machine type-in + more on Locomotive utilities + Public Domain software**
- **Major review of new PPC640 + review of ABC package**

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THE AMSTRAD USER

Issue No. 46 - November 1988

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All enquiries and contacts concerning this Publication should be made in the first instance by writing to The Amstrad User, Suite 1, 245 Springvale Road, Glen Waverley, Victoria 3150, Australia. Urgent matters can be phoned through on (03) 233 9661.

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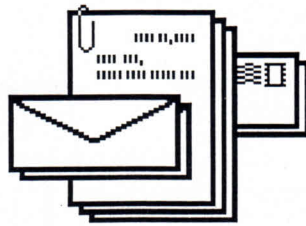
From time to time, some articles appearing in The Amstrad User will be reproductions from UK publications Amstrad Action and 8000 Plus. These are printed under an agreement between Strategy Publications and Future Publishing Ltd, Bath.

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 and is not affiliated in any way with Amstrad or their Australian distributors or any other dealer in either software or hardware.

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.

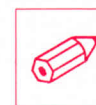


Shock, horror! We have learned that one or two chappies at Amstrad are apparently suggesting that only Amsoft 3" disks can be used in their machines. This somewhat erroneous suggestion, of course, coincides with Reckon beginning to supply dealers with high quality CF2D disks from Olivetti, at very keen prices.

Understandably, Amstrad wish dealers to continue buying their expensive Amsoft disks, but its a bit naughty inferring that Reckon disks are unsuitable. On the contrary: these diskettes are manufactured by the World's oldest business machine company - Olivetti, and of course carry a lifetime guarantee.

Better to compete on price and service than by bagging the competition. After all: its just not cricket!

Stephen Rickwood, Reckon Software.



In response to Mike Perry's letter (TAU, August 1988), I think that I may know the solution to his question number 1. Although I have not read the article in question, if Mike typed in the Bank manager loader program, for the CPC 6128, and ran it on a CPC 464, even with a 64K memory expansion, it would report "Load Failed", as the first part of the program pokes a small machine code program into memory and calls it. This program calls the

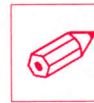
firmware routine HI:KL PROBE ROM, (found at location &B915) and based on the results of this call, the BASIC loader ensures that the machine is a CPC 6128.

If this is the problem don't use the Bank manager loader for the 6128, but the one for the 64k memory expansion, unless the RSX's are added by a ROM.

Secondly, in TAU, July 1988, in the article on moving sprites, "Gary's Graphics Glossary" mentions that the screen offset can be changed by calling SCR SET OFFSET at BD1F. However, BD1F is the entry point for MC SET OFFSET, which changes the screen offset set in the CRT Controller, but does not update the firmware workspace with the new offset. This is done by SCR SET OFFSET, which then exits via MC SET OFFSET. Its entry point is BC05, and I think that this should be used in preference to BD1F.

Stephen Shott, Launceston, Tas.

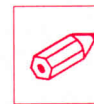
Provided with the Dk'Tronics Ram expansion unit is their own bank switching software. If you wish to use the Bankman with a CPC464 or CPC664, follow the below procedure. Run the Dk'Tronics bank software. Type | EMULATE <ENTER>. This command allows the computer to call the firmware routine at &B915, so Bankman will not come up with a "Load Fail". Now run the Bankman program as described in the Bankmanager series.



Concerning the letter by Bill Harper, Spearwood, W.A. in the August '88 issue. I, like him have found that some software distributors are like this, particularly with IBM software. I own a 464/DDI-1 and have several thousand dollars worth of software and this problem is inevitable these days, but in answer to Bill's question, we the consumer do have the right to look/question/inspect software before buying it. The problem lies with the manufacturers/distributors. They should have some type of leaflet/poster documentation accompanying the software so that dealers can give it out to prospective buyers. This would alleviate the problem considerably. Ironically this problem is minor, here in Toowoomba, since there are only a handful of dealers of Amstrad Computer/Software. But it still exists. Maybe we the consumers should consult the manufacturers/distributors and discuss it with them.

If anyone else is still reading this letter, do you - my fellow readers of this great mag - have any POKES, cheat modes or hints for "Firelord" on disc?

David Culliford, Toowoomba, Qld



I think your magazine is very good and find it an invaluable reference - couldn't have managed without it.

My only suggestion is probably very impractical. Is it possible to have the advertisements on the backs of last pages of articles and tips? Will no doubt horrify you all, but I cut out all articles and references to the PCW (whether queries or whatever) and then paste on foolscap and file separately in individual folders, so that I now have a very handy PCW reference library and can go straight to the item I am looking for, instead of trying to remember which magazine I had seen it in and then read through the lot to find it. e.g. Have separate folders for Locoscript/Logo/CP/M/Basic/Databases etc.

and one large folder with divisions for other sections e.g. printers/ribbons/games/languages/spell-checkers etc. If articles and tips back on to one another, have to photocopy all the relevant back pages so I can file them all, so hence the thought of ads on the back.

N. Campbell, Bundaberg, Qld.

You're right - it is impractical.



Here I have some tips that can be included in your cheat mode section DRUID - for 99 of fire, water, chaos

etc. type "REMEMBER PAUL HUTCHINSON?" into high score table.

NUCLEAR HEIST - for infinite lives into the high score table type "EGDIRDL" (ELDRIDGE - the programmers last name spelt backwards).

I have also written in to ask if you know how I could get my hands on a pokette for either Arkanoid or

Dragon's Lair? Lately Arkanoid has had me ripping my hair out!!

Lastly, but not least, could you tell me whether or not TARGET RENEGADE will be appearing in the software page for my 464? After hearing of it from the UK and being a Renegade addict I feel that I need it.

P.S. I have a suggestion. Make the "CHEAT MODE" section like the "Hairy Hacker" in the AMSTRAD COMPUTER USER. I bet it would prove popular and a big feature for hopeless gamers like me.

Scott Little, Gladstone, Qld.

Turn to the CPC software pages which show that Target Renegade is now available on disc for \$44.95 and \$29.95 on tape.



I am 13 and currently own a Amstrad CPC 6128. I have bought this magazine since May 1988, and there has only been one game (Patience). I

would surely appreciate it if you could put more games in your issues for people around may age group who enjoy a "zap bang!" now and then. I would like to congratulate the Amstrad User for their up-to-date information and tidy presentation. A job well done, indeed! To conclude my letter, I have included a one-liner which makes all those nasty numbers on the keyboard totally invisible!

10 SYMBOL AFTER 48:FOR n=48 TO 57:SYMBOL n,0:NEXT

I hope you can publish this letter.

L. Lynde, Zillmere, Qld.



I was wondering for some time now if I could get a program or an extension that I could put in or plug into my Amstrad CPC 6128 to make it compatible with the I.B.M.

And I am very disappointed in the graphics that the Amstrad produces, especially in the games part. The graphics on a game is what I

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really look for when I go out in search of the ultimate game for my Amstrad. I see a wonderful and an attractive cover with an excellent review at the back of it. I quickly buy it and rush home to try it out.

And what a disappointment it was, the game was only 1/3rd of the screen on my monitor, which made it very difficult to see.

Please tell me why the big companies such as Imagine and Ocean which produce good games only use up a little bit of the screen for their games and not the whole lot, which in turn makes it a lot easier to play and to see, with a bigger screen the graphics would certainly be a lot better.

Oh yes, I do agree that your magazine is wonderful, but it is missing the Hackers page or the Cheat modes for the games which are impossible to play.

And also you are missing the screen pictures of the games which you review each month in your magazine to let us know what the games are like.

And oh yes I've got to congratulate you on a great magazine you publish each month. I thought it was that good that I gave up my birthday and Christmas presents for the subscription.

Hy Hwang, Westfield, WA.

If you want to run IBM games, buy an IBM or a compatible. Don't ever be fooled by attractive covers.



I've had your magazine for the last two issues now, (Aug - Sep 1988), and there seems to be little mention of the PC's. Well I bought one just

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.

recently, (a PC1512DD), and the reason might be that the people who have them find them just a little bit of an embarrassment. I've tried SIX times to get that 'DATAFILE', to 'SAVE', and it is almost impossible. The first few times 'The Machine', reduced it to a series of ???**^^^???, up until the CHDIR command. Well I gave it away for a day or so and then had another go. This time I typed it in non-stop (being only a two finger man, it took almost four hours), I listed it, checked it, line by line, edited it, (just one or two mistakes), then tried to SAVE it.

***** I kept repeating to myself, as the screen popped up, WRONG FILE NAME, FILE ACCESS DENIED, and so on, well after almost shorting out my keyboard as the tears flowed freely I finally gave up any hope of saving it, and did the Aussie thing and read the instruction book, to my horror it contains none, so I can't even fix it when I do anything wrong.

DOS and MS-DOS are quite easy to understand but that GEM, wow what a load of rubbish if the screens were of a better quality and had a higher resolution it would not be so bad, but as it is, it's a waste of time, hard copying anything bigger than standard type, it all looks like a bad mosaic, and if I had not just had my eyes tested I would be off to the Opticians, because I'm blown if I can read anything on the GEM screens. That's the only thing the book's good for, to see what's supposed to be written under the icons.

Well my VZ300 sits in it's box, but for how long I'm not sure, I wanted to enter the competition in your magazine, but at this rate Dick Smith looks like getting all my personal programs, and the kids look like playing games on the not so cheap after all PC1512DD.

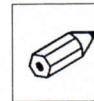
If the fault is mine I will apologise, but until Amstrad re-write that book and make it user readable, like Tim Hartnell's style, they will have to give away more than a few games to get me to recommend it to

anyone.

I am not too proud to accept help, so if anyone has mastered the Basic2, system on GEM, could you let me in on it. Also is there another start up disc for other types of Basic that controls the screen and not me.

Peter Horobin, Geraldton, WA.

Have you tried SAVEing a one or two line program? If you can do that, you can save Datafile. Otherwise, let us know the specific steps you take and we will try to help.



I'm in need of a program for my CPC464 that talks. In the July Issue 1988 I found the sound Digitiser. I'm sorry I did not like the way it worked. I need a program that you type in the word or sentence you want it to say. So can you write a program in your next book that makes my CPC464 talk please!! I w s also looking in the section Driving your floppy dollars further. Also I didn't like the way Michael Kleef complained about your programs. I find them exciting, very exciting! With the lockable disk boxes can there be lockable tape boxes? If there is I would like to know about them!! If you have a talking program please put it in your books!!

Troy Walsh, Boorawa, NSW.

1. You'll need a Speech Synthesiser.
2. Haven't heard of lockable tape boxes.

**All letters should be addressed to:
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Sorry, but we cannot answer any personal correspondence.

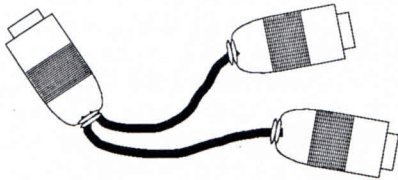
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NEWS BREAK

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



▲ The new flagship of the Amstrad range, the Amstrad PC2386

AMSTRAD LAUNCHES 16/32-bit PC2000 SERIES

If you read last month's News Break carefully, you would have noticed a small item from the 'rumour room' about Amstrad's next offering. In fact, as far back as May this year we intimated that a "16-bit" was in the pipeline. The rumour was confirmed at the recent PC Show held at Earls Court in London, where Amstrad unveiled its latest range of computers aimed at the corporate comput-

ing market. There are basically three models: the PC2086, the PC2286 and the top of the range PC2386.

The PC2086 is the entry level 8086 based machine and can be used as a stand-alone system or as part of a multi-user network. It operates under MS-DOS 3.3 and MicroSoft Windows v2.03 with 640k of RAM. Within this level are a number of option (12 in all) starting with the

most basic (SD12MD) which has a single 720k 3.5" disc drive and a 12" mono display up to the 30 mb hard disc version with 14" VGA monitor (HD14HRCD).

The second level model is the PC2286. This is a little faster than the 2086 operating at 12MHz through an Intel 80283 microprocessor. It comes with MS-DOS 4.0 and when expanded can be used with OS/2. The floppy drives can hold 1.4 Mbs. It also includes MicroSoft Windows 286 allowing users access to several Window applications at the same time. It has 1Mb of RAM expandable to 4Mbs with a sophisticated 16/32-bit internal bus as standard. There are 8 options in this level ranging from a twin drive version with 12" mono monitor (DD12MD) to a single drive, 40Mb hard disc version with a 14" VGA monitor (HD14HRCD).

The top-of-the-range PC2386 is the flagship of the PC2000 series and is seen as being used by the high-end workstation user. It is the fastest in the range using an 80386 processor running at 20MHz including 64k of RAM cache memory and 4Mbs of parity checked RAM (expandable to 16 Mbs). It has a 65Mb sector buffered hard drive as standard. Like the 2286, the floppy drive (only one) can hold 1.4 Mbs of data, and is also supplied with MS-DOS 4.0 plus MicroSoft Windows 386. There are four options available: from a single drive, 65Mb hard disc with 12" mono monitor (HD12MD) to a single drive, 65 Mb hard disc with VGA monitor (HD14HRCD).

All models are VGA graphics downward compatible to CGA,EGA, MDA and Hercules, and include an RS232 serial port, GW-Basic, 5 full-size PC compatible expansions slots (except the 2086 which has three), bi-directional parallel Centronics port, MicroSoft compatible Mouse.Com and Mouse.Drv. and access to 5.25" external discs. This last point gets over the problem IBM PS/2 owners currently have and effectively allows the booting of protected 5.25" programs such as Lotus 1-2-3 from a re-assigned drive A.

What helps to expand the choice of machines in the PC2000 range are the types of monitors available and also announced at the Show. They are a 12" mono display (PC12MD), a 14" colour display (PC14CD), a 12" high resolution colour display (PC12HRCD) and a 14" high resolution colour display (PC14HRCD). The high resolution or VGA monitors are designed to be used with anyone else's computers as well as Amstrads.

At the time of writing, the Australian arm of Amstrad has not released details of availability or prices on the new range. However, you could make a calculated guess based on the UK release prices:

2086/SD12MD	£599
2086/HD14HRCD	£1349
2286/DD121MD	£999
2286/HD14HRCD	£1699
2386/HD12MD	£2649
2386/HD14HRCD	£2999

The UK monitor prices are:

PC12MD	£149
PC14CD	£299
PC12HRCD	£399
PC14HRCD	£499

It is not expected that all dealers in Australia will have access to the new range. Amstrad are currently re-organising their dealer and distributor networks because "we want to make sure our corporate customers can be confident that the dealer from whom they buy an Amstrad PC2286 or PC2386 machine or an Amstrad network will be completely competent in providing all the necessary support services". This statement infers that there will be three levels of dealership - Amstrad Advanced System Centres; Amstrad Authorised Business Dealers and Amstrad Authorised Computer Dealers. Selected dealers will be able to market all Amstrad computers from the PC2386 down, others will be able to start at the PC2286 down and the third category from the PC2086 and down. Again, at the time of writing, Amstrad have not made any firm decisions.

OTHER AMSTRAD RELEASES

The PC2000 series was not the only product to be released at the PC Show in London. A new quad-standard modem was released, the SM2400, designed to fit under a telephone and give desktop access from any computer which has an RS232 port to electronic services and high speed data transfer.

There was also news of "The Amstrad Network", a system to link

three Amstrad PC compatible computers within an office environment. This can be expanded to six stations. Amstrad reckon that if you can plug a printer on to your computer, you'll find setting up their network just as easy. The system is handled by Amsnos which runs quite transparently to the user so there is no need to learn any new operating systems.

LOCOMOTIVE LAUNCHES BASIC2 PLUS

Locomotive Software has just launched a major enhancement of the GEM-based Basic2 programming language supplied with both the Amstrad PC1512 and 1640.

It answers criticism of the previous version by including true decimal arithmetic. Other features are an interactive trace/debugging facility, Pascal-like program structure, full multi-file sharing under IBM NET BIOS-compatible LANS and 'pre-scan' semi-compilation phase for fast execution.

Basic2 Plus will support named procedures and user-defined functions, with parameters and local variables, giving the basis for true structured and modular programming as found in such languages as Pascal, C and dBase.

Procedures can be loaded from separate disk library files, instead of

all having to be in a single source program file, via a new system of separately loadable modules.

True decimal arithmetic is included to make financial applications easier to program, eliminating rounding errors which occur in binary to decimal conversions.

The inclusion of network-compatible file handling makes it possible to write multi-user applications with file and record locking.

The Australian price of Basic2 Plus is likely to be around the \$200 mark and will include a new manual and possibly a free upgrade voucher for the next release. Details are currently being sought from Locomotive concerning upgrades for existing users and, with a bit of lick, will be reported in next month's magazine.

Announcing

LOCOFONT SET 2

We announced Locofont Set 1 last month with 10 new fonts - now add a further six fonts to your LocoScript system with Locofont Set 2:

**Mini PS
Mini 15/17
Penman
Old English
Standard 1 and 2**

Now available through The Amstrad User for just \$65.00 including postage (\$4.00 extra for overseas orders).

The Amstrad User
1/245 Springvale Road
Glen Waverley, Vic. 3150

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NEW ZEALAND NEWS

The good news for Amstrad users in New Zealand is that Brandt Corporation Ltd, the NZ licensed distributors of Amstrad products have undergone a major re-organisation starting with a move to new premises at 6 Walls Road, Penrose, Auckland, a new General Manager and a Northern Area Manager. To complement this, several large advertisements for Amstrad computers have appeared, not before time, in leading New Zealand publications.

This all adds up to the fact that Amstrad in New Zealand is alive and kicking. The very aggressive approach by Amstrad will give the NZ Amstrad user the same opportunities as their overseas counterparts and a competitive edge over the competition.

1988 was destined to be the year of the laptop computer, an exciting thought and maybe a great boon for the busy executive, but a bit on the expensive side for most of us - that is until the Amstrad laptop (PPC range) came along. It is not expensive, has all the features, plus the extras that Amstrad New Zealand have included at an unbelievably low price.

Readers should check this deal for themselves at their local Amstrad dealer or write to Dealer, PO Box 25-015, St. Heliers, Auckland for information.

It is interesting to note that the two Amstrad laptops, the PPC512 and the PPC640 were released in Australia late August and early September. In New Zealand these products have been on the market for several months.

Any news-worthy items will be considered for publication and should be sent to:

The Editor
The Amstrad User
1/245 Springvale Road
Glen Waverley, Vic 3150

AMSNET CONSOLIDATES ON PC

Because of the increasing demand on their time, Amsnet International have had to change their business tactics to concentrate on the burgeoning PC market.

As their expertise is best in Accounting and Database systems, and because of poor supply of products in the UK, they have made the decision to exit from the CPC and PCW markets to retailers. Therefore, as from September they have ceased to import products for these computers.

Neville Wright, Amsnet's MD says "To maintain our commitment to end users, we have passed many of the items that we used to import over to The Amstrad User magazine".

"We wish to convey our thanks to the many thousands CPC and PCW

users who have contributed to our coffers over the last two years. Without you, we would not have become the force we are today in the Australian Amstrad world".

"Our retail store, PC Network in Southport, is one of the largest suppliers of Amstrad PCs in the country, offering a degree of support that we believe is unmatched. Any product for PCs from Cashbook systems to Multi-company accounting, from simple databases to multi-user networked systems, from simple word processing to the most sophisticated desktop publishing systems are available from PC Network. We welcome any enquiries from you when you are ready to enter the PC world".

All enquiries to Amsnet on (075) 321465

OZISOFT AND MEDIAGENIC JOIN FORCES

OziSoft, Australia's leading home computer software distributors and Mediagenic, publishers of Activision, Electric Dreams, Infocom, System 3 and Micro Illusions have just struck an exclusive distribution deal for the Australian region.

Mediagenic have a strong line-up of releases for Christmas and 1989. These include such arcade hits as *Afterburner* - Top Gun style fighter plane action; *R-Type* - the smash arcade shoot-em-up of 1988; *SDI* - Star Wars technology, save Earth

from nuclear destruction; *Time Scanner* - video pinball action; *Altered beast* - beat-em-up action through graveyards, jungles, caves etc. for one or two players; *Ace Attacker* - arcade Volleyball simulation; *Sonic Boom* - more hot fighter plane action; *Hot Rod* - overhead view car racing game and *Galaxy Force* - space flight shoot-em-up/simulator.

Mediagenic have also signed the rights to produce a game based upon the new Bruce Willis (of 'Moonlighting' fame) movie 'Die Hard'.

CHANGES TO NEW UK COPYRIGHT BILL

A proposed Copyright, Designs and Patents Bill has had a controversial clause amended which in its original form would have given customers an automatic right to rent software products one year after their initial release.

The Federation Against Software Theft (FAST) claimed that the clause would have led to widespread piracy as people would rent on the

short term and keep their back-up copies. FAST estimated that unchanged it would cost the industry over £50 million each year.

The amendment no longer makes rental automatic, and is now very unlikely to apply to software.

Another clause in the Bill will make it illegal to sell devices for the purpose of breaking copy-protected schemes.

FORTHCOMING CPC GAMES FROM MAJOR PUBLISHERS

From OCEAN

Batman is back! Coming this month on the PC and CPC range (a version already exists for the PCW) is the latest adventure of the Caped Crusader as he matches wits with his arch foes the Penguin and the Joker.

WEC Le Mans is based on the top coin-op simulation and is the ultimate car racing game. Action takes place in the gruelling 24 hour race around France, though hills and suburbia battling to keep control of your car while negotiating numerous hazards and opposing cars.

Dragon Ninja provides eight levels of lean, mean fighting screens. Includes four types of evil Ninja star-throwing assassins, acrobatic women

warriors, vicious guard dogs as well as each level's Ninja Master - the fire breathing Fatman, Armour clad Giant and the green and gruesome Giant Ninja.

From US GOLD

Roadblasters - the smash Atari road-racing shoot-em-up

1943 - the follow-up to 1942 with more WWII fighter action

Black Tiger - the Capcom martial arts arcade smash

Tiger Road - more Capcom martial arts action

The Deep - underwater submarine arcade action

Thunder Blade - the Sega helicopter shoot-em-up simulator

LED Storm - arcade road racing/shoot-em-up action

Forgotten Worlds - Ghost'n Goblins style action deep in the forest

From GRANDSLAM

Pacmania - superb Namco coin-op with Pacman in 3-D

Pacland - a great cartoon style arcade conversion

Espionage - a computerised version of the popular board game

Thunderbirds - the famous puppets hit the computer screen

The Running Man - from the hit Arnold Schwarzenegger film

We cannot guarantee that all the above will be available by Christmas - we'll keep you posted.

YOUR MAGAZINE INCREASES STOCK LINES

The Amstrad User magazine has snapped up the rights to distribute a number of additional products following a short visit to the UK, taking in the PC Show and visiting a number of software and hardware manufacturers. The new and additional lines will become available over the next few months, but some are already sitting on the shelves in Glen Waverley.

For both CPC and PCW owners, we have started importing the AMX products which include Stop Press, the AMX Mouse and interface and Extra Extra clip art for Stop Press (CPC only).

Level 9 are keeping us well informed on their publication schedule and have supplied copies of Ingrid's Back and Gnome Ranger in CPC, PCW and PC format. A new adventure called Spook will be available in March 1989.

We've sourced the joystick splitter cables which everyone has been asking for - a simple construction which allows two joysticks to be used through the same port (obviously for those people who are rich

enough to own two joysticks or don't like the idea of sharing a sweaty one).

Kempston, a well known name in Amstrad computing circles, are supplying a proven PCW joystick interface for the games players. It simply plugs into the expansion port at the back of the PCW and then the joystick into the unit.

Kempston also have a new product called Daatafax (no, not a spelling error) in a gift pack form for PCW owners. This is a computer based personal organiser that generates Filofax™ compatible output. The pack comes complete with stylish six-ring binder, starter pack of stationery, subject tabs, instructions and, of course, the software.

From CP Software comes a compilation disc for PCW players containing Clock Chess 88, Backgammon, Draughts and Bridge with news of an even more sophisticated and challenging Chess 89 package close on its heels. And while on the subject of compilations, we have six different games of Patience on one

disc from Thurston Techniques.

You've probably seen the advert in UK magazines - the one with the cup of coffee spilling over the keyboard. As Australians are prone to accidents just like the English, we have the keyboard covers for the PCW 8125/8512 and CPC6128 to protect your valuable asset from any mishaps. It is moulded to fit over the keys, and you would hardly know it was there as it doesn't impair typing at all.

The UK trip also uncovered some books we knew nothing about (more about those next month) and we've got heaps of Public Domain software for both the CPC and PCW.

The trip also confirmed that Australian importers have failed to look after the PCW gamester as there are many titles which have never been officially available in this country. We hope to redress the shortage by adding many more titles to our mail order list over the next few months as well as some of the lines previously held by Amsnet International.

Make sure you keep your eyes peeled in future issues.

MORE GAMES TO PLAY

Six more games - from Cowboys to Basketball and plane flying to film direction - come to the top of the pack for scrutiny

THE GAMES REVIEWED THIS MONTH

Basket Master
Charlie Chaplin
Flying Shark
Mask II
Trantor
Western Games

BASKET MASTER

One of the best basketball simulations around

Tape \$29.95

Disc \$44.95

Dinamic are renowned for their flick screen shoot-em-ups like Freddy Hardest and Game Over. This is a departure for them to a one on one basketball simulation. One or two players can take part.

There's a nice title screen with a guy spinning a ball on the tip of his finger and smiling the sort of smile that a crocodile would be proud of. There are three difficulty levels: beginner, amateur or NBA (the UK National Basketball Association). Beginner is tough enough to keep most people on the losing side until you've had lots of practice.

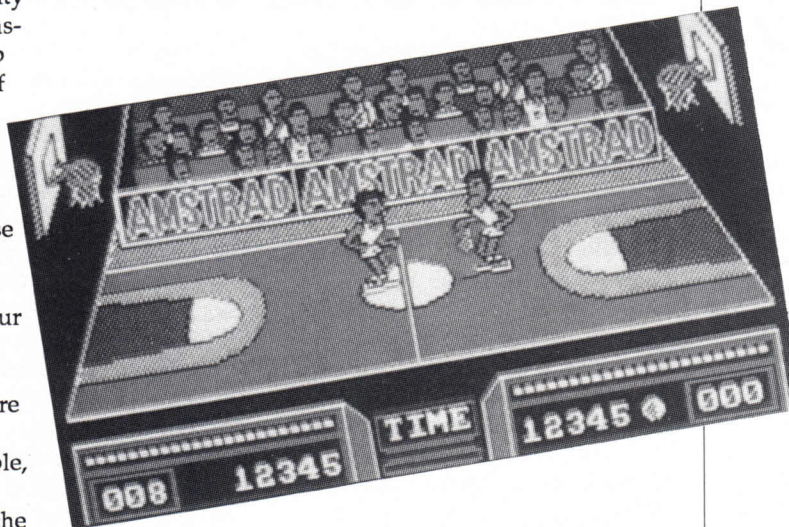
The pitch consists of two baskets at opposite ends with shooting zones on the floor below them. To win the game all you have to do is score more points than your opponent. This is not as easy as it sounds because you also have to watch out that you don't inflict too many fouls. There are four types of these; travelling, back-court, out of play or personal. Personal fouls occur when you jump into your opponent. If you inflict a personal foul your opponent gets a free shot at your basket and if this goes in he gets a second shot. You are expelled from the game if you inflict five fouls.

When in possession of the ball you can either dribble, shoot or slam-dunk. A slam-dunk is where you jump up close to the basket and literally push the ball into the net rather than throw from a distance. A successful slam dunk is replayed in slow motion with a zoom-in on the action.

When you haven't got the ball you can try to steal, intercept or cover the zone. Stealing takes the ball from your opponent, but you have to be quick or he'll take it back. Next to a foul meter is a space where the ball appears, if it is visible then you are in a position to steal the ball. Interceptions are where you catch the ball after you opponent's had a shot at the basket and covering the zone forces your opponent to shoot from further out, where he will score less often.

At the bottom of the screen is a status area which

shows energy, number of fouls, message area, score and timer. If you are low on energy then you can't perform slam-dunks and your shots aren't as accurate. The score board keeps a record of the points each player has gained. When the timer reaches zero the game ends and the player with the highest score wins.



Graphically the game is what you would expect from Dinamic, nice large characters and smooth, colourful animation, presenting no problems to green screen owners. The slow motion action replays are delightful although rather chunky. A title tune plays, but there is no in-game tune. Sound are the bounce of the ball and the roar of the crowd when a basket is scored.

The computer opponent is very mean, even on beginner level, and at NBA level you'll need to be very good. When playing against the computer you can cheat quite easily by making it commit five fouls. As a two player game it's much more fun and will keep you occupied for longer.

MASK II**An old-fashioned shoot-em-up requiring strategy**

Tape \$29.95

Disc \$44.95

Mask II is a game from Gremlin which was released after Mask and before Venom Strikes Back. All are based on the popular children's TV cartoon characters. In many respects Mask II is similar to the original - saving the world once again from Venom (Vicious Evil Network Of Mayhem) and Miles Mayhem. The game is divided into three sections or missions which you can choose at the beginning of the game.

The first is a desert mission where you have to rescue the President of the Peaceful Nations Alliance held for ransom by Venom and take him to Summit talks to eventually sign a peace treaty. The second takes place at the Venom Base where you must find a missile and destroy the base to stop Venom from siezing control of the Middle East oil reserves. The third takes place in a jungle where Venom is developing an awesome weapon using a stolen ruby. The weapon needs to be destroyed and the ruby recovered.

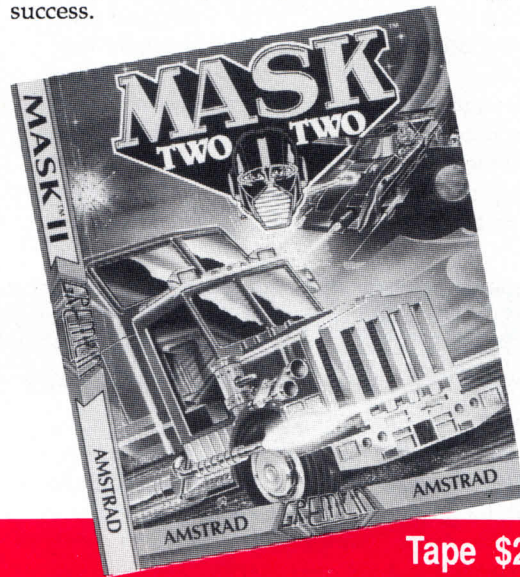
Three teams members need to be selected along with their vehicles for the respective missions. These have to be chosen carefully to suit the expected terrain.

Whichever mission you choose, you are bound to confront masses of Venom gun emplacements and agents in flying craft to destroy. Dotted around are extra fuel and armour to collect when needed. Some are

a little difficult to fly over as they are sometimes hidden below ledges. There are other puzzles to solve during each quest.

Sound is limited to a tune played at the title screen and the usual noises of battle. The graphics are of the 'chunky' kind, colourful and smooth scrolling. Green screen owners will have no problems.

It is addictive, not much less than the original, but does require a degree of planning and strategy for success.



Tape \$29.95

Disc \$44.95

WESTERN GAMES**Great fun with this Cowboy's Olympics**

Enough of all those sporting simulations, let's get down to the serious competitive events of arm-wrestling, beer-shooting, quid-spitting, dancing, milking and eating. The program is a multi-load with one event in each part. You can either play against the computer or another player.

Arm wrestling is first on the list and the screen is split into two parts. The bottom shows a picture of you and your opponent sitting on either side of a table surrounded by a crowd of cowboys. The top of the screen shows three arms, one is yours, one is your opponent's and the middle one is used to increase strength. The central arm continuously moves in a pumping action and you try to pull back on the joystick when the arm is in the vertical position. The winner of the bout is the one who forces his opponent's arm down into the candle flame.

A point is scored every time you win a bout, and the winner of the contest is the first to score three points. You then progress to the next opponent and continue until you lose a contest. Money is won each time you win and this is added to your score for all six events.

The higher the level of the opponent, the more chance that he will cheat by putting his hand on the table. you can also cheat, but make sure that the sleepy headed judge doesn't see you.

Beer shooting is next and in this you must shoot five progressively smaller glasses of beer out of the hands of a village idiot. Five glasses may sound simple, but the problem is that you must shoot five in a row, because if your opponent hits a glass then you have to start all over again. It's no mean feat to shoot five in a row and you may get frustrated with this stage.

Quid-spitting allows you to take up the bad habit of chewing tobacco and spitting into your opponent's spittoon. Spitting is not as easy as you may think, because you have to bite the tobacco, chew it, aim it and then let fly with a mouthful.

In dancing you try to do the Can-Can after a little tuition from a dancing girl. You and your opponent then go up on stage and mimic exactly what the girl did. If you succeed in the dance then you continue on with more and more complicated dances, but if you miss a beat the crowd gets rowdier. Eventually they will hit

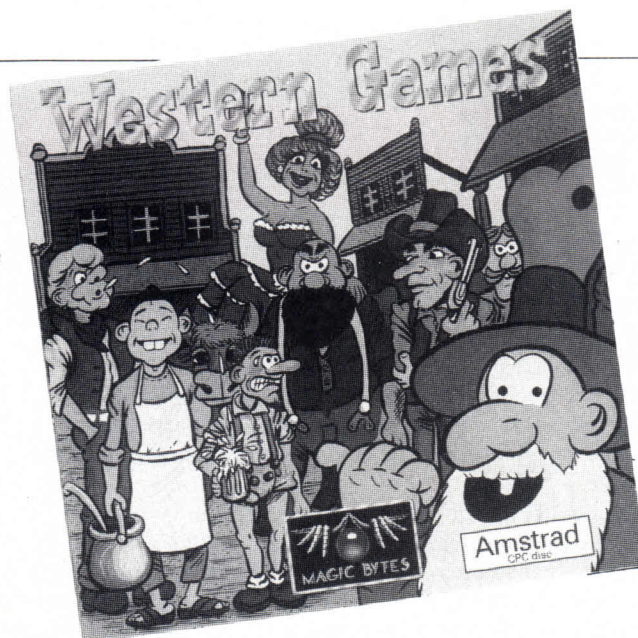
the pianist on the head and he refuses to play again until the person who missed the beat buys him a beer.

If milking a cow is as difficult in real life as it is in this game, then I'll stick to going down the shop for a litre. To get milk out of a cow you have to follow a sequence of joystick movements and keep pace with the fluctuations in the cow's udder. You can cheat here by kicking over your opponent's bucket, as long as no one sees you.

Finally there is the eating contest in which you compete against an opponent in a race to empty a bowl of stew. The food has to be spooned into your mouth and then chewed before you swallow. If you chew too much then you will swallow a lot of air and as a consequence end up belching which slows you down. Drinking in between mouthfuls helps in swallowing.

Tunes occur in some of the events and spot effects appear throughout the game. The graphics are large, detailed and colourful. Each of the events has attractive graphics which are well animated.

Sporting simulations have been around for a long time and this is probably one of the least serious



attempts. Mastering all six events will take you a long time and you may come back to this later for a quick wiggle. Western Games is good family fun.

TRANTOR

Hot action from a flame throwing mercenary

Tape \$29.95

Disc \$44.95

The People of Zybor have kept order in the solar system for thousands of years. Their control is slipping due to a new power in the world Nebulithone. Trantor and a group of outlaw mercenaries set out to reconnoitre the planet. Trantor returns to the ship only to find it destroyed and the mercenaries dead. You are Trantor - the last Storm trooper.

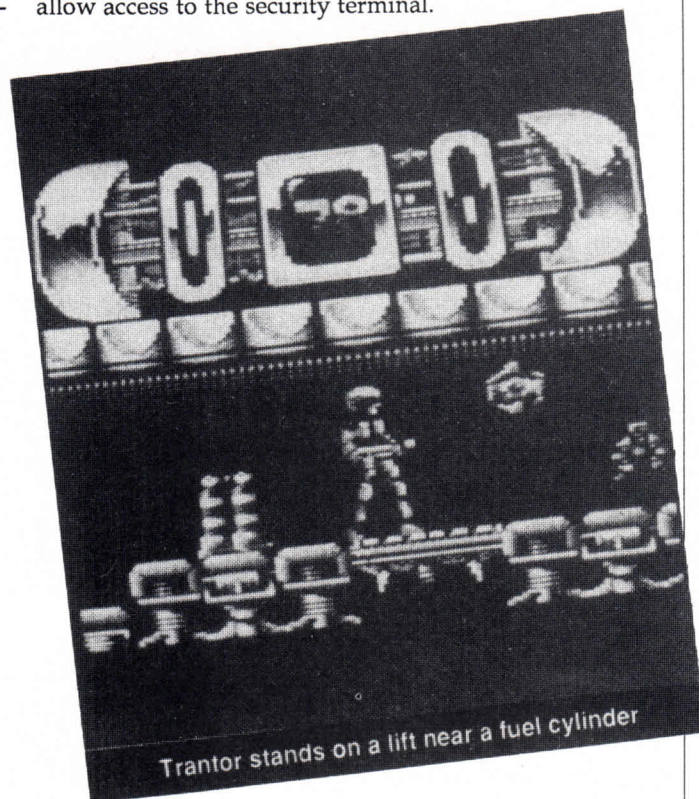
Before the game itself loads there are three loading screens to go through. The second shows Trantor's space ship landing on the planet and Trantor stepping out of the ship and onto the complex. The first and third loading screens are nice but merely waste time when you could be blasting away. There is also some digitised speech after the first loading screen and this adds a nice touch.

When you eventually start to play the game you are presented with a large well animated figure standing in a corridor. You're armed with a flame thrower and can stride around the complex killing everything in sight.

This is all simple enough except that the complex is littered with alien life forms who all deplete your energy level. If you run out of energy then you expire and the game ends. Watch for the large blue monster on the fourth level because if it touches you then you die instantly. Fortunately the blue monster and every other creature in the complex can be shot with a quick squeeze on the trigger of your flame thrower. (Green screen owners should have no problems.)

Flame throwers need fuel and this can be found in large cylinders on each level. There are also lockers on

the levels and these contain one of several objects. These include hamburgers to replenish your energy, fuel to replenish your flame thrower and a pass key to allow access to the security terminal.



Trantor stands on a lift near a fuel cylinder

Two NEW discs from The Amstrad User

The Amstrad User - Year Disc 9 Issues 41 to 44

Side 1 (70k free)

BANKCHEK (41) 1K	EFFECTS (41) 3K	POLAR (42) 2K
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BANKEX6 (41) 1K	FLIPMIRR (44) 1K	ROCKETB (43) 1K
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BANKSRCH (41) 1K	HELIDEMO (41) 2K	SCRTRANS (44) 2K
BCD1 (42) 5K	HWSCROLL (44) 1K	SPELLING (44) 6K
BCD2 (42) 5K	LIFE (41) 3K	SPRITE (42) 2K
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BTRANS (42) 1K	PASCAL (42) 1K	WIMPER (44) 5K
CURSORFL (43) 2K	PATIENCE (41) 10K	
DATASAVE (43) 5K	PERFECT (42) 1K	

Reference to original magazines may provide more information on the above programs

Side 2 (58k free)

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NULU151.COM	15K	UKM7CPM2.COM =	8K		
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Items marked '†' are for CP/M Plus, those with a '=' are for CP/M 2.2

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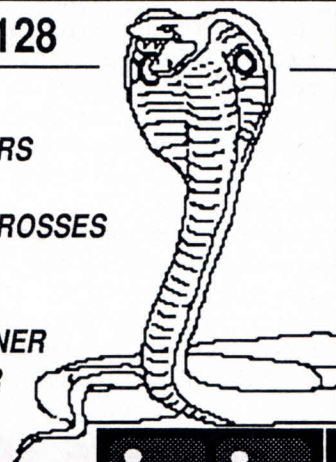
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PLEASE NOTE: As some of the programs on TAU Games+ use graphic commands only available on the CPC6128, the package is not suitable for CPC464 owners.

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You can travel between the levels by standing on lifts and pressing down or up. There is one down lift and one up lift on all but the top and bottom levels of the complex.

To complete the game you must find the secret access code to the security terminal. This is done by looking in each of the eight computer terminals which each hold one of eight letters. These letters make up an anagram of a computer related word. You also need the pass key to access the security terminal and this is found in one of the lockers. The anagram must be fed into the security terminal and you then proceed to the beam area. From here you can beam off the planet with

the knowledge of a job well done.

Trantor is big and stamps around the complex in an impressive manner. The scrolling of the screen is smooth and fast. The title tune is good enough and the in-game effects are loud and effective.

Wandering around the complex cremating everything in sight is great fun, but after a while you have to settle down to completing the game and this is where things become a little harder. Finding hamburgers is not easy and you often die within sight of a locker which could just contain food. If you are looking for a game with real zap-appeal this is it.

CHARLIE CHAPLIN

Can you direct a box-office hit on your CPC or PC?

Tape \$29.95

Disc \$44.95

The moustache, bowler hat and walking stick have been brought to the Amstrad screen (both CPC and PC) by US Gold. The object of the game is to direct a slapstick movie starring the most famous of silent screen comedians and gain rave reviews from the film critics.

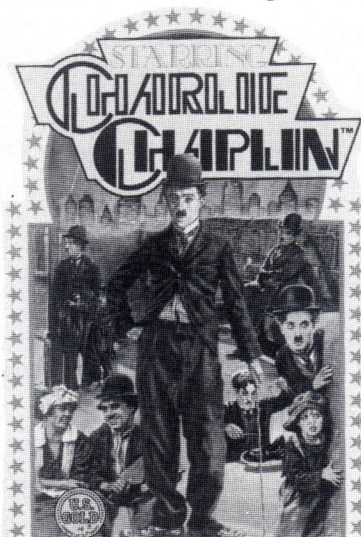
The first task is to select a script, and there are eight to choose from: The Immigrant, Married Life, The Vagabond, The Worker, etc. With each script comes information about the cost of shooting, cost of script and the number of scenes to be shot. Having selected the script, more details of each scene can be seen if necessary although there are no facilities to change anything.

Pressing the Fire button (or Space bar) sets the cameras rolling with all the actors, except Charlie Chaplin, under computer control. The idea is to move Charlie around the screen, knocking people to the floor and generally performing whacky stunts. It must be said that the stunts are fairly restricted but the more knock-downs the better in the minute allocated to the scene.

At the end of each scene, the director (you) has the option to re-shoot if he is not happy with the result, but

has to be mindful of the additional expense. Before making that decision, he can see the 'rushes' (the scene just filmed) at either normal speed or twice the speed. Once all the scenes have been shot, the complete film is ready for release and is shown on the 'silver screen' from beginning to end with text cards separating the different scenes.

The success or otherwise of your film is gauged by the critical response it receives on the front page of 'Variety'. If it's a roaring success then the box-office receipts will be high enough for you to make another film. If not, the accounts page, which appears at the end of the first screening will show how much you are



in debt.

Needless to say, the game is in 'black and white', which means that if you have a green screen things are just as clear. Charlie Chaplin is certainly an original game and may well sell on novelty value alone. The question remains as to whether it will hold the interest of any player for very long.

FLYING SHARK

Take to the air with a Taito coin-op classic

Tape \$29.00

Disc \$39.00

Flying Shark is a vertically-scrolling shoot-em-up in which you pilot a plane (the two wing variety and not a monoplane as illustrated on the inlay card) across enemy terrain. The fact that you are using a slower plane is reflected in the speed of the game. It is not as fast as you would expect, but is nevertheless full of

enemy fire-power to keep you on your toes and your hand glued to the joystick or keyboard.

The screen is divided into three vertical sections. The centre block where the main action takes place is an aerial view of the ground below and shows the position of the plane continuously moving forward. Movement

of the plane can be in any of four directions. On either side of the main screen are status panels for one or two players showing the current score, number of lives and smart bombs. Needless to say, as there is only one Allied plane on the screen at a time, the two player option is not simultaneous.

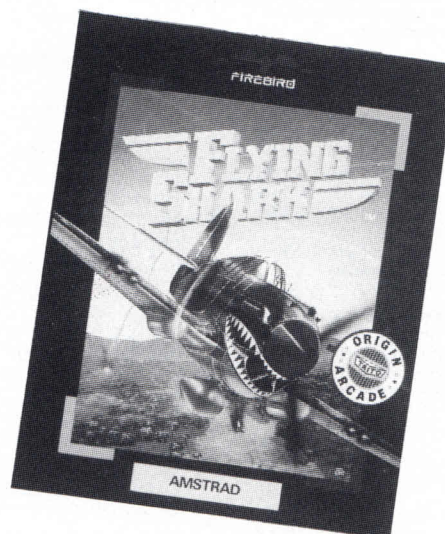
The game starts with taking off from the Allied Air Base towards a jungle and you immediately encounter enemy aircraft to shoot down. As you progress you meet attacking ground units, tanks, more planes and anti-aircraft guns all bent on your destruction. Planes tend to attack in groups and only require one hit to shoot them down - a hit in the engine makes them explode, anywhere else will cause them to spiral down to earth. Tanks on the other hand require a couple of shots to destroy them and are capable of firing at you as you fly past. Larger planes and anti-aircraft guns require even more hits.

If you manage to destroy a complete squadron of enemy aircraft a bonus token will float onto the screen and must be flown through to be claimed. Flying through an 'S' will increase your firepower, through a 'B' will add a smart bomb to your armoury and through a '1up' gives an extra life to a maximum of nine. Extra lives are also gained at 50,000, 150,000 and every 150,000 points after that. Smart bombs are useful in that they can destroy everything on the screen or at least impart major damage to larger obstacles. The 'S' adds an extra gun to your plane and when you have three your shots are spread out which means you have a better chance of downing the enemy without concentrating on accuracy (hard enough when in the heat of battle).

When you think you are through the thick of it the second part of the conflict looms - a sea battle. Here, there are not so many fighter planes to fend off so the bonus tokens too are less frequent. The enemy fire-

power comes in the shape of a flotilla of battleships with gun turrets and gunboats. If you manage to get through that lot, the final confrontation is with a massive, multi-turreted aircraft carrier protected by enemy fighters. Succeeding at this final level takes you to an airstrip where bonus points are added to your score (based on the number of smart bombs left), your plane presumably refuelled and sent out again to do battle.

The game is well presented and got the 'thumbs-up' from my children even though they were testing it on a green screen where the enemy bullets are sometimes tricky to spot. In colour there are few problems with well animated and smooth scrolling graphics. The



adequate sound effects are typical of this sort of game. Some could argue that the scrolling is slow but we all found the action during the game fast and furious enough to put our sweat glands to work.

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<i>including Super Hang on, Winter Olympiad, Match Day II, Track and Field, Nick Faldo's Open etc.</i>		
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Magnificent Seven Compilation *		
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	49.95	39.95
Night Raider	44.95	29.95
1943	44.95	29.95
Pacland	44.95	29.95
Pacmania	44.95	29.95
Pegasus Bridge	34.95	29.95
Rambo III	44.95	29.95
Road Blasters	44.95	29.95
SDI	44.95	29.95
Taito's Coin Op Hits		
<i>with Rastan, Arkanoid 1 & 2, Flap Fight, Bubble Bobble, Legend of Kage, Renegade etc.</i>		
		39.95

Prices of titles marked with an asterisk are anticipated only as they were not known at the time the list was compiled. The list below is updated every month. Additions are shown in bold type.

GAMES

	Discs	Tapes
720° (Skateboarding)	44.95	29.95
1943	44.95	29.95
Academy (Tau Ceti II)	49.95	29.95
Ace of Aces	49.95	29.95
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Andy Capp	34.99	29.99
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Bad Cat	44.95	29.95
Ball Breaker	44.95	29.95
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Detective	44.95	29.95
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Batman	44.95	29.95
Bedlam	-	29.95
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Bionic Commando	44.95	29.95
Black Tiger	44.95	29.95
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BCD APPLICATION

As promised two months ago, Petr Lukes presents us with an application which requires the BCD modules published over the last four months

This is the first BCD application which requires modules 1 to 4 to be installed. The Trigonometric functions Sine and Cosine are evaluated by summation of infinite convergent Taylor series, whose derivation can be found in any introduction to Calculus.

The argument in circular measure (radians) is first reduced to the absolute range of 0 to PI by progressive subtraction of PI. Each subtraction will change the sign of the final result, and the high bit of the variable sg is used to keep track of the changes. Further reduction could be affected, but would introduce complications.

The two series used are:

$$\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \frac{x^9}{9!} - \dots$$

$$\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \frac{x^8}{8!} - \dots$$

The two series are similar in that the powers of x increment by two and so do the factorials, and the sign changes at each term. If the power of x of the first term is p (1 for sine, 0 for cosine), then the (i)-th term is obtained from (i-1)-th term by multiplying it by (-x²) and dividing by (p+i*2-3) and (p+i*2-2). The (-x²) term remains constant during the calculations, so it is evaluated before entering the loop.

The evaluation is very slow. It could be speeded up by storing the pre-computed constants for a finite number of terms, as most high-level languages do. Even languages which have the choice of double precision variables usually only use single precision for the computation of transcendental functions. The extra precision would be needed only in very special cases.

The inverse of trigonometric functions also involves summation of a series. The simplest one is:

$$\operatorname{atn} x = x - \frac{x^3}{3} + \frac{x^5}{5} - \dots \quad [x^2 \leq 1]$$

and is the one usually included in high level languages. Other functions can be derived from it, for example:

$$\operatorname{asin} x = \operatorname{atn}(x/\sqrt{-x^2+1})$$

A word about constants stored in ASCII within the program (such as PI): the conversion routine is not intelligent enough to round up the last digit. If you select a lesser number of digits than the maximum, the constant should be rounded manually before conversion. The indicator string below PI should help to identify the correct digit to round.

```

80 PRINT"BCD Applications":GOTO 120
90 'Jump table to subroutines
100 f%=INSTR("?ab+*/",f%):IF f%<2 THEN PRINT"Undefined
function":RETURN
110 ON f%-1 GOTO 3020,3100,3340,3340,3610,3710
120 '
130 PRINT"Application 2: SIN and COS LKS 880330"
140 PRINT"sin x = x - x^3/3! + x^5/5! - x^7/7! + ..."
150 PRINT"cos x = 1 - x^2/2! + x^4/4! - x^6/6! + ..."
160 x$="0":f$="a":GOSUB 100:nil$=x$
170 x$="1":f$="a":GOSUB 100:one$=x$
180 x$="3.141592653589793238462643383279502884197169399
3751058209749446"
190 ' 0.00000000011111111122222222223333333333444444
444455555555566
200 f$="a":GOSUB 100:pi1$=x$
210 x$="180":f$="a":GOSUB 100'deg
220 wr$(0)=x$:wr$(1)=pi1$:f$="/":GOSUB 100:rdg$=x$'rad
to deg
230 '
240 WHILE INKEY$>"":WEND'clear out buffer
250 PRINT:PRINT"Enter angle in radians ":LINE INPUT x$
260 f$="a":GOSUB 100:num$=x$:f$="b":GOSUB 100:PRINT ex$
270 IF num$=""THEN 240
280 red$=num$:MID$(red$,1)=CHR$(ASC(num$)OR &80):sg=0'r
ed=abs(num), sg=sign toggle
290 WHILE red$ >= pi1$
300 wr$(0)=red$:wr$(1)=pi1$:f$="-":GOSUB 100:red$=x$:s
g=sg XOR &80
310 WEND
320 MID$(red$,1)=CHR$((ASC(red$)AND &7F)OR(ASC(num$)AND
&80))'restore sign
330 x$=red$:f$="b":GOSUB 100:PRINT ex$
340 '
350 PRINT:PRINT"Computing sine"
360 apx$=red$:fac$=one$:loc$=red$:GOSUB 570'common subr
outine
370 MID$(x$,1)=CHR$(ASC(x$)XOR sg)'adjust sign
380 si$=x$:f$="b":GOSUB 100:PRINT:PRINT"sin "=":PRINT ex
$
390 PRINT:PRINT"Computing cos"
400 apx$=one$:fac$=nil$:loc$=red$:GOSUB 570
410 MID$(x$,1)=CHR$(ASC(x$)XOR sg)'adjust sign

```

```

420 co$=x$:f$="b":GOSUB 100:PRINT:PRINT"cos =":PRINT ex$
430 PRINT:PRINT"Check : "
440 PRINT"Angle (rad)":x$=num$:f$="b":GOSUB 100:PRINT ex$
450 PRINT"Angle (deg)":wr$(0)=num$:wr$(1)=rdg$:f$="*":GOSUB 100:f$="b":GOSUB 100:PRINT ex$
460 PRINT"Reduced (rad)":x$=red$:f$="b":GOSUB 100:PRINT ex$
470 PRINT"Reduced (deg)":wr$(0)=red$:wr$(1)=rdg$:f$="*":GOSUB 100:f$="b":GOSUB 100:PRINT ex$
480 PRINT"Sine ":x$=si$:f$="b":GOSUB 100:PRINT ex$
490 PRINT"Cos ":x$=co$:f$="b":GOSUB 100:PRINT ex$
500 wr$(0)=si$:wr$(1)=co$:f$="*":GOSUB 100:si$=x$'square sine
510 wr$(0)=co$:wr$(1)=co$:f$="*":GOSUB 100:co$=x$'square cos
520 wr$(0)=si$:wr$(1)=co$:f$="+":GOSUB 100'sum squares
530 PRINT"Sum of squares ":f$="b":GOSUB 100:PRINT ex$
540 GOTO 230
550 '
560 STOP
570 'approximation subroutine
580 wr$(0)=loc$:wr$(1)=loc$:f$="*":GOSUB 100'square argument
590 IF x$<nil$ THEN a=ASC(x$)XOR &80:MID$(x$,1)=CHR$(a)'negate
600 loc$=x$:adj$=apx$
610 'loop
620 wr$(0)=fac$:wr$(1)=one$:f$="+":GOSUB 100:fac$=x$
630 wr$(0)=loc$:wr$(1)=adj$:f$="*":GOSUB 100
640 wr$(0)=x$: wr$(1)=fac$:f$="/":GOSUB 100
650 adj$=x$
660 wr$(0)=fac$:wr$(1)=one$:f$="+":GOSUB 100:fac$=x$
670 wr$(0)=adj$:wr$(1)=x$: f$="/":GOSUB 100
680 PRINT:f$="b":GOSUB 100:PRINT ex$
690 IF x$=nil$ THEN 740
700 adj$=x$
710 wr$(0)=apx$:wr$(1)=x$: f$="+":GOSUB 100:apx$=x$
720 f$="b":GOSUB 100:PRINT ex$
730 GOTO 610
740 x$=apx$'result in x$
750 RETURN
760 '
    
```

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PLANNING THE PROGRAM

This month Paul Gerard explains how to plan out your program and also looks further into menuing routines

You may remember that in the first article I promised three working programs would come out of this series - for the first time we will actually have a specific look at one of these, a "database" (more correctly a simple filing system). We will go through the formal design process, so that when we start to write the actual program ("lay down our code") we know exactly where we are headed.

PROGRAM CONCEPT

The first step is to conceive the basic concept or idea behind the program - what it is actually for. In the case of something fairly corny like a filing system or simple database we ought not to have to waste too much time on this - what our program is to do is to keep a file of information - perhaps a "phone book" of our friend's addresses, phone numbers, vital statistics etc., perhaps a log book for our car, perhaps a register of members of our user group, complete with records of club software they have borrowed and so on. We may well have at this stage a very general idea of how this is to be accomplished - for instance we will probably be using "records" (or "data structures") divided into "fields" (or "data elements").

Other programs, especially anything really innovative or exciting, will probably require a good deal of thought and taking of notes at this stage, before the program's general concept is anything like this clear.

Incidentally, is it clear? If not the following will present a few difficulties. The best I can do is recommend a basic book on database systems - a good one for starters, if you can find a copy, is that old faithful: *Filing Systems and Databases for the Amstrad CPC464* by Stephenson & Stephenson. (London, Collins, 1985). It is rather less well adapted for Arnold than might appear, being a rehash of similar titles for other computers - and is a bit dated, but should prove useful none the less. For the rest, to get back to our program design, the next step is the:

PROGRAM SPECIFICATIONS

This stage will certainly require notes. Here we decide just how ambitious we are going to be, and exactly

what we are going to set out to achieve.

We will probably in this case decide that a general filing system, with a "user-defined" record structure will be more useful than a system that is already set to be just a phone book, or just a record of the software we have written, or just a catalogue of our computer books. (Although a specialised data base is a perfectly valid exercise you may want to try some time - I am working on one for our local community FM station at the moment).

At this stage it is also a good idea to have a general idea about where and how the data is to be manipulated - our choices are:

1. Leave the data on the disc and read each record individually (either sequentially or using some kind of "random access").
2. Read the data from the disc (or tape) either as an entire file or in very large chunks, and manipulate it in our "front" RAM (ie. the same 64K that our program and indeed our operating system uses).
3. Read the data as in 2., but load it into our "back" RAM (6128 and "expanded" 464 and 664 owners only), reading individual records into "front" RAM one at a time, as in option 1.

Each of the above has its advantages - in the interests of compatibility (we don't want to lose all our 464 owners at this early stage!) we are more or less stuck with option 2. This is the fastest (although really well programmed option 3 is only a little slower) but is comparatively limited as far as file size is concerned. Our real difficulty here is that we are using a little 8-bit computer - we can build up a useful application, but it will not compare well with the kind of thing we could produce for a mainframe or a larger micro.

Next, we need to decide whether we will be concerned with labelling "fields", or "data elements" as well as being "alphanumeric", "integer", "date" and so on, and whether to limit their length. Since we are after all operating in a very confined space we will in this case probably decide to limit field size to a maximum of (say) 30 characters but to otherwise leave things open, and not define fields as being of a particular type, nor of a fixed length. There are drawbacks to this, but there are also advantages - in particular it does maximise the number of records we will be able to fit into our limited memory space.

Finally, we will want to define what we want to be able to do with our data. Obviously we will want to be able to ADD a new record, EDIT an existing record and DELETE a record no longer current. We will also want to be able to SEARCH our file for a particular record, and also for particular categories of record. We will want to be able to SORT our data by any of the fields (eg. put our data into alphabetical order by surname, or into numerical order by age), and we will want to be able to PRINT our data out in the form of "hard copy" -

preferably arranged just as we want it, and including only the fields we require. We will want to be able to perform simple calculations (eg. average age of our friends). If we have a second drive (or even a "silicon disc", we will want to be able to switch from drive A to drive B (or C). The list could go on and on, but somewhere or other (and it is best done at this stage) we must call a halt. In particular, if we are using RAM based data in a small computer we must face the fact that the more elaborate our program gets the less data we will be able to manage at one time. Knowing exactly what we are intending to do means that our program will not go on growing like topsy until there is no room for any data at all.

STRUCTURE PLAN

In a menu based system this will start, at least, with a list of user options (ie. largely a list of menus). Whether we work out the structure in order to set out the menus, or whether we plan our menus in order to clarify our ideas of the structure is largely a matter of how your mind works.

If we look at our first "menu" - there is initially no data base in memory so there is no point in presenting the user with the option to ADD records, for instance. In fact it would be worse than pointless, because if he tried to add records to a non-existent file we would have to give him an error message, and error messages are irritating, and are best avoided altogether. Thus our list of options for the first menu will be severely limited. The functions we will want will be:

- Create a new file
- Edit old file
- Change drive
- Catalogue this disc
- Leave program

At this stage we are not really interested in whether all these options will be accessed through a menu or not, or even if we will be using a menu at all - these are simply the choices we want our user to have when he first boots our program.

From the first option (create file) we will want something like this:

- Name the file
- Define number of fields
- Name the fields
- Leave this function (return to main menu)

As soon as the number of fields and their names is defined we can include options to:

- Add records to the file or
- Save the file structure

Attempting to save an unnamed file will of course result in the computer asking for a name (at least in a disc system - on tape the file need not be named of

course) before the save is performed - in fact this will always be done anyway, in case we want to change the name!

Once records have been added to the file we can add further options to:

- Edit record on file
- Display whole file
- Find and display one record
- Search file (eg. for all our friends from Melbourne)
- Calculations
- Save file
- Sort file
- Print file (or the result of a search)

Some of these options will appear on menus, some will probably form sequential parts of a single menu option, and some will need to be further broken down. Each one will of course be coded as a subroutine or series of sub-routines. Next month we will have a look at how they will be linked together in the completed program.

MENUS (part 2)

When these articles were originally drafted I had no idea that the "pull down" menu we had recently were in the pipeline. If you have a "wimp" set up you may well want to incorporate this into any BASIC programs you write (and you will find that a structured approach will make this easier to do!). None the less the boring old full screen menu routine we started last month does have some advantages - (among other things it grabs far less memory). In any case it is well worth persisting with, even if only just as an exercise. All the following lines will be added to your "TRIAL2" program from last month. (Or incorporated into your own programs, of course.)

You may remember that we had got this far:

```

2000 ' menu routine (Version 1.1)
2010 mde=1:GOSUB 600 'set mode
2020 head=1:GOSUB 100 'print heading
2030 FOR i=1 TO 5
2040   LOCATE 7,5+(i*2):PRINT menu$(i)
2050 NEXT
2060 CLS#1:PRINT#1,TAB(7)"Type in 1,2,3,4 or 5 ";
2090 control=4:length=1:GOSUB 200 'User input
2900 RETURN
  
```

Because the lines of our menu are in an array, the promise is that we should be able to make this one routine print any menu we want to call at any time. There are a few more obvious things we will have to add first, however.

Firstly, the line that calls the heading (2020) should be able to call different headings, depending on which menu is being displayed. This should do the trick:

```

2020 head=menu.number:GOSUB 100 'print heading
  
```

The point will be obvious if you have been following this series - in future we will be calling this routine with a parameter called "menu.number", which will determine (among several other things) which heading will be required.

Next - the menus may well be of different lengths. If there is only ONE option we will be using our "YES/NO" routine, otherwise there might be anything from two to nine choices to pick from. If the length of each menu is put into an integer array during initialisation (as "menu.length(n)") then we can allow for this by changing lines 2030 and adding some code at 2060 onward, thus:

```
2030 FOR i=1 TO menu.length(menu.number)
```

(This makes the loop that actually prints out the lines on the menu flexible enough to cope with different menu lengths.)

```
2060 CLS#1:PRINT#1,TAB((40-(11+(menu.length(menu.number)
)*2))\2)"Type in 1,";
2070 FOR i=2 TO menu.length(menu.number)-1
2075 PRINT#1,RIGHT$(STR$(i),1);",";
2080 NEXT
2085 PRINT#1,"or"STR$(menu.length(menu.number))
```

This rather daunting looking piece of code simply generalises line 2060 from our original routine. The same little integer "menu.length(menu.number)" cleverly controls the instruction in window #1 to coincide with the number of choices open to the user. "STR\$" is by the way a very useful function - if you are not familiar with it look it up in the manual and experiment a bit!

Finally we will want to make sure that the "control" parameter we are sending to our INPUT routine also corresponds to the number of choices - this also uses the same stored integer:

```
2060 control=menu.length(menu.number)-1:length=1:GOSU
B 200 'user input
```

There are two more small changes we will want to make - the first is to turn off that unwanted and misplaced cursor that is hanging off the edge of the screen. One way of doing this might be to introduce a further complication into subroutine 200 - perhaps via yet another parameter called "cursor", a Boolean variable that will turn the cursor off or on as desired. For various reasons I would prefer the following crude but effective device:

```
2087 PEN 0 'turn off the cursor!
2100 PEN 1 'turn it back on again!
```

Put around the line that calls subroutine 200 these lines disable the cursor by simply making anything written to the screen the same colour as the background! It is obviously a state we do not want to persist - if for some reason you crash, or break out of the program and your writing disappears then just type in "PEN 1" blind, hit return, and all should be back to normal!

The other change to make to the routine is a modification to line 2040, which prints out each menu line. At the moment the option number is part of the string variable "menu\$(n)" - eg. "1. Create new file"; more flexible is simply "Create new file" with the "1." printed separately. We also need to ensure that each menu starts at the right point in menu\$(n) -

This line takes care of both things:

```
2040 LOCATE 7,5+(i*2):PRINT STR$(I)".  "menu(i+start
(menu.number))
```

You can probably work out for yourself just how the new lines complete the menu - by passing a single parameter (menu.number) to the routine any of our menus can be printed from the one routine. We will need to set up two new integer arrays - menu.length(n), and start(n) - these are set up with the following additions to our initialisation routine:

```
13100 ' Menus
13110 DIM menu$(19)
13120 RESTORE 40100
13130 FOR i=1 TO 19:READ menu$(i):NEXT 'Menu val
ues
13140 DIM menu.length(6)
13150 FOR i=1 TO 4:READ menu.length(i):NEXT 'Menu lengt
hs
13160 DIM start(6)
13170 FOR i=1 TO 4:READ start(i):NEXT 'Menu start
ing points
```

and these new data lines - note that actually these do not necessarily set up the right menus for our database program, (we don't have enough room to be playing about with on-line instructions, for instance!) but they will serve to demonstrate the routine.

```
40100 ' DATA for menu$(n)
40110 DATA "Instructions","Open a new data file","Acces
s an old data file","Change drive (A/B)","Catalogu
e this disc","Leave this program","Name the file"
,"Define number of fields","Name fields","Leave t
his function","Add records","Save file structure"
40115 DATA "Edit record","Display file","Find record","
Search file","Calculations","Save file","Print fi
le/search"
```



```
40120 ' DATA for menu.length(n)
40130 DATA 6,3,6,9
40140 ' DATA for start(n)
40150 DATA 1,7,10,10
```

Finally here are the changes needed to subroutine 60000 (the test rig for our menu routine) in order to test out its new features.

```
60005 IF menu.number<4 THEN menu.number=menu,number+1
      ELSE menu.number=1
```

```
60020 choice=VAL(byte$)+(start(menu.number)-1)
```

Next month we will have a look at an alternative menu program that is rather fancier and more forgiving, present our first complete typein (a "disc-menu" program)) and start serious coding of our database.

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PRINTING SPECIAL CHARACTERS

We continue on this month with the final part of the public domain package Flashgen

After explaining how to use Flashgen last month and publishing the first part of the program, we conclude this month by repeating the instructions on modifying it for PCW owners, followed by the second half of the program.

PCW MODIFICATIONS

For PCW owners, by changing and inserting the following lines, you may convert the program to work under Mallard Basic.

Delete line: 1125

Change the following lines to;

1170 ESC\$=CHR\$(27)

1180 U\$=ESC\$+"A"

1190 D\$=ESC\$+"D"

1200 C\$=ESC\$+"C"

1210 CLR\$=ESC\$+"E"+ESC\$+"H"

1220 C\$=CHR\$(13)

1635 IF A\$="" THEN 1630 ELSE A\$=UPPER\$(A\$)

1651 IF A\$="A" THEN A\$=L\$:GOTO 1790 ELSE IF A\$="S" THEN
A\$=R\$:GOTO 1790 ELSE IF A\$="W" THEN A\$=U\$:GOTO 1790
ELSE IF A\$="Z" THEN A\$=D\$:GOTO 1790

2490 IF LPOS(0)>PW THEN LPRINT

2800 IF LPOS(0)>PW THEN LPRINT

2880 WHILE INKEY\$="" :WEND

3020 PRINT " THE KEYS W, S, Z and A MOVE THE CURSOR TO
THE REQUIRED DOT POSITION."

Everywhere that you see the command PRINT#8, change it to LPRINT. With all this in mind you have a working version of Flashgen. Have fun.....

```
1620 ' THE MAIN LOOP STARTS HERE -- WE GET A KEY FROM
      THE USER
1630 A$=INKEY$
1635 CALL &BB8D:CALL &BB8A:IF a$="" THEN 1630
```

```
1640 ' TEST FOR A VALID KEY. IF NOT VALID GET ANOTHER
      ELSE PROCESS IT
1650 ' IF A$=L$ OR A$=R$ OR A$=U$ OR A$=D$ THEN 1790
1651 IF a$=CHR$(242) THEN a$=1$:GOTO 1790 ELSE IF a$=CHR
$(243) THEN a$=r$:GOTO 1790 ELSE IF a$=CHR$(240) THEN a
$a=u$:GOTO 1790 ELSE IF a$=CHR$(241) THEN a$=d$:GOTO 179
0
1660 IF A$=" " OR A$="," THEN A$="":GOTO 1890
1670 IF A$="X" OR A$="x" THEN A$="X":GOTO 1940
1680 IF A$="D" OR A$="d" THEN 2010
1690 IF A$="A" OR A$="a" THEN 1350
1700 IF A$=CR$ THEN PRINT A$;:X=1
1710 IF A$=CR$ AND Y<7 THEN PRINT D$;:Y=Y+1
1720 GOTO 1630
1730 ' =====
=====
1740 ' HERE IF USER HIT A CURSOR CONTROL KEY
1750 ' NOTE: BASIC-80 DOES NOT PRINT L$ IF PREVIOUS C
      HAR WAS R$ (I ASSUME
1760 ' IT LOOKS FOR A CHAR TO DELETE AND DOES NOT FIN
      D ONE AND IGNORES THE
1770 ' BACKSPACE). HOWEVER, BASCOM DOESN'T CHECK AND
      ALWAYS PRINTS AN L$.
1780 ' TO PREVENT THIS NONSENSE I PRINT A CHAR WHEN R
      $ IS FOUND.
1790 IF A$=L$ AND X>1 THEN PRINT A$;:X=X-1:GOTO 1630
1800 IF A$=U$ AND Y>1 THEN PRINT A$;:Y=Y-1:GOTO 1630
1810 IF A$=D$ AND Y<7 THEN PRINT A$;:Y=Y+1:GOTO 1630
1820 ' FUDGE TO PRINT A CHAR WHEN R$ FOUND SO THAT BA
      CKSPACE WORKS
1830 IF A$<>R$ GOTO 1630
1840 IF R(X,Y)=0 THEN PRINT "."; ELSE PRINT "X";
1850 IF X=W THEN PRINT L$; ELSE X=X+1
1860 GOTO 1630
1870 ' =====
=====
1880 ' HERE IF HE KEYED A BLANK OR A DOT
1890 PRINT A$;:R(X,Y)=0
1900 IF X=W THEN PRINT L$; ELSE X=X+1
1910 GOTO 1630
1920 ' =====
=====
1930 ' HERE IF HE KEYED X TO PRINT A DOT
1940 PRINT A$;:R(X,Y)=1
1950 IF X=W THEN PRINT L$; ELSE X=X+1
1960 GOTO 1630
1970 ' =====
=====
1980 ' HERE AT D TO DUMP SCREEN PATTERN TO PRINTER. Y
      OU MAY DELETE
1990 ' IF YOU DO NOT WANT A PRINTED PATTERN OF THE Xs
      AND DOTS
2000 '
```

```

2010 XS=X:YS=Y
2020 FOR K=1 TO 7
2030 FOR J=1 TO W
2040 IF R(J,K)=0 THEN PRINT #8, "."; ELSE PRINT #8, "X"
;
2050 NEXT
2060 PRINT #8,
2070 NEXT
2080 PRINT #8,
2090 ' =====
=====
2100 ' JUMP OVER CIOH CODE IF WE ARE PRINTING EPSON
2110 IF P$="E" THEN GOTO 2570
2120 ' =====
=====
2130 ' HERE IF PROCESSING A CHAR FOR A CIOH PRINTER
(P$="C")
2140 PRINT #8, "CHARACTER: ";
2150 PRINT #8, ESC$+"S";
2160 IF W<10 THEN PRINT #8, "000"; ELSE PRINT #8, "00";
2170 A$=STR$(W)
2180 IF W<10 THEN A$=RIGHT$(A$,1)
2190 IF W>9 THEN A$=RIGHT$(A$,2)
2200 PRINT #8,A$;

```

```

2210 ' =====
=====
2220 ' NOW SEND CIOH BYTES TO PRINT THE CHAR IN GRAP
HIC MODE
2230 FOR X=1 TO W
2240 N=0:S=1
2250 FOR Y=1 TO 7
2260 N=N+R(X,Y)*S
2270 S=S*2
2280 NEXT
2290 PRINT #8, CHR$(N);
2300 NEXT
2310 PRINT #8, " ";
2320 ' =====
=====
2330 ' NOW PRINT THE STRING NEEDED TO CREATE THIS CHA
R
2340 PRINT #8, "CIOH CODE: 27 'S";
2350 IF W<10 THEN PRINT #8, "'0'0'0"; ELSE PRINT #8, "'
0'0";
2360 A$=STR$(W):A$=RIGHT$(A$,LEN(A$)-1)
2370 IF W<10 THEN PRINT #8, "'"+A$
2380 IF W>9 THEN PRINT #8, "'"+LEFT$(A$,1)+"'+RIGHT$(A
$,1)

```

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CPC/PCW TYPE-IN

```

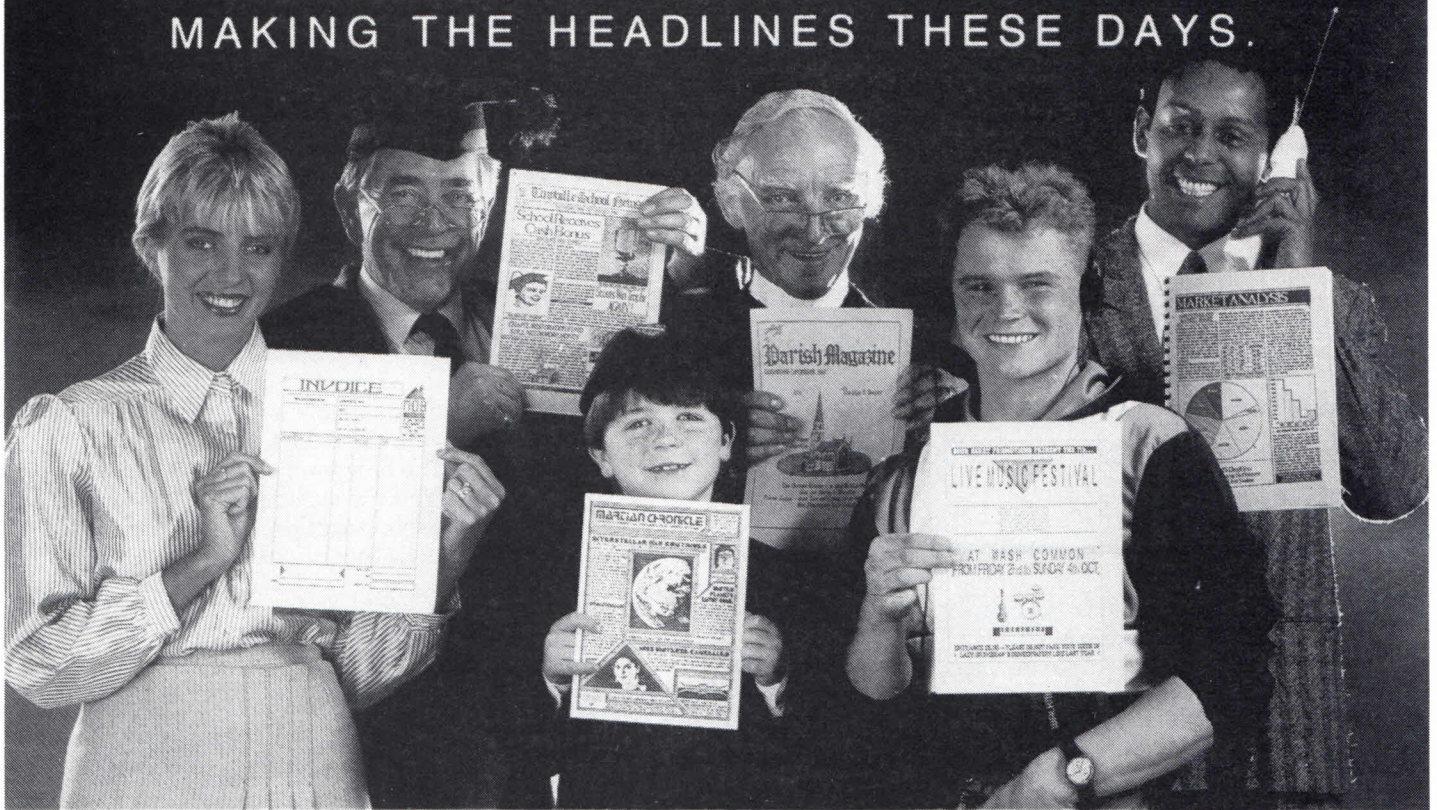
2390 ' =====
=====
2400 ' PRINT DECIMAL BYTES FOR THIS CIOCH CHAR.
2410 PRINT #8, "+ DECIMAL: ";
2420 FOR X=1 TO W
2430 N=0:S=1
2440 FOR Y=1 TO 7
2450 N=N+R(X,Y)*S
2460 S=S*2
2470 NEXT
2480 PRINT #8, N;
2490 IF POS(#8) >PW THEN PRINT #8,
2500 NEXT
2510 PRINT #8,
2520 GOTO 2860
2530 ' =====
=====
2540 ' WE ARE HERE TO PRINT THE CHARACTER ON AN EPSON
2550 ' SAME CODING AS CIOCH EXCEPT FOR INTIALIZATION
AND READING OF
2560 ' R ARRAY (EPSON IS READ FROM BOTTOM TO TOP OF E
ACH COLUMN)
2570 PRINT #8, "CHARACTER: ";
2580 PRINT #8, ESC$+"K"+CHR$(W)+CHR$(0);
2590 ' NOW SEND BYTES TO PRINT THE CHAR
2600 FOR X=1 TO W
2610 N=0:S=1
2620 FOR Y=7 TO 1 STEP -1
2630 N=N+R(X,Y)*S
2640 S=S*2
2650 NEXT
2660 PRINT #8, CHR$(N);
2670 NEXT
2680 PRINT #8, " ";
2690 ' NOW PRINT THE CODE TO CREATE THIS CHAR
2700 PRINT #8, "EPSON BIT IMAGE CODE: 27 'K";W;"0"
2710 ' PRINT DECIMAL BYTES FOR EPSON CHAR
2720 PRINT #8, "+ DECIMAL: ";
2730 FOR X=1 TO W
2740 N=0:S=1
2750 FOR Y=7 TO 1 STEP -1
2760 N=N+R(X,Y)*S
2770 S=S*2
2780 NEXT
2790 PRINT #8, N;
2800 IF POS(#8) >PW THEN PRINT #8,
2810 NEXT
2820 PRINT #8,
2830 GOTO 2860
2840 ' =====
=====
2850 ' HERE AT END OF PRINT. RESTORE X AND Y IN CASE
OF CONTINUE

2860 X=XS:Y=YS
2870 PRINT #8:PRINT #8
2880 A$=INKEY$:CALL &BB8D:CALL &BB8A:IF A$="" THEN 2880

2890 IF A$="C" OR A$="c" THEN 1630 ELSE GOTO 1350
2900 ' =====
=====
2910 ' HERE TO PRINT INSTRUCTIONS
2920 PRINT CLR$
2930 PRINT "FLASHGEN FOR FLASHPRINT!! VERSION H - JAMES
TUCKER 1985"
2940 PRINT
2950 PRINT "FLASHGEN ALLOWS YOU TO DESIGN A CHARACTER
ON YOUR SCREEN THEN
2960 PRINT "DUMP THE REQUIRED BIT IMAGE CODING TO YOUR
PRINTER. THE CODE MAY
2970 PRINT "THEN BE KEYED INTO A FLASHPRINT!! TABLE. FL
ASHPRINT!! ALLOWS YOU
2980 PRINT "TO PRINT ANY CHARACTER WHICH YOU DESIGN FRO
M A WORDSTAR FILE
2990 PRINT "
3000 PRINT "YOU MUST SPECIFY YOUR PRINTER (AS PROMPT E
D) THEN THE WIDTH OF
3010 PRINT "YOUR CHARACTER (ALL CHARACTERS ARE 7 DOTS H
IGH). THE NORMAL"
3020 PRINT "CURSOR KEYS MAY BE USED TO MOVE YOUR CURSO
R TO A DOT POSITION.
3030 PRINT "THE <RETURN> KEY WILL MOVE YOU TO THE START
OF THE NEXT LINE.
3040 PRINT "
3050 PRINT "ON YOUR GRID, BLANK PRINTING DOTS ARE DIS
PLAYED BY A DOT (THE
3060 PRINT "INITIAL STATE) AND PRINTING DOTS ARE DISPLA
YED BY AN X. YOU KEY
3070 PRINT "AN X TO CHANGE A BLANK INTO A PRINTING DOT.
YOU KEY A SPACE OR A
3080 PRINT "DOT TO CHANGE AN X INTO A BLANK.
3090 PRINT "
3100 PRINT "WHENEVER YOU HAVE A CHARACTER IMAGE ON TH
E SCREEN YOU MAY KEY
3110 PRINT "D TO DUMP IT YOUR PRINTER OR A TO ABORT AND
START AGAIN. AFTER A
3120 PRINT "PRINTER DUMP YOU MAY KEY C TO CONTINUE WITH
CURRENT CHARACTER OR
3130 PRINT "ANY OTHER KEY TO CLEAR SCREEN AND START A N
EW CHARACTER.
3140 PRINT "
3150 PRINT "NOW PLEASE PRESS ANY KEY TO RUN FLASHGEN"
3160 A$=INKEY$:IF A$="" THEN 3160
3170 GOTO 1350
3180 END

```

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.

Centring, 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!

Complementing '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	\$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,
1/245 Springvale Rd.,
Glen Waverley. VIC. 3150.

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

• Dealer enquiries are Welcome •

THE LAST BATTLE

AMS's new desktop publisher is here, waging war on its three rivals. Alec Rae checks out its firepower.

The one thing that Stop Press, AMS's new desktop publishing package, can show the software industry is that even when a market looks over-crowded you can still find a niche by taking a new and imaginative approach.

There are people producing newsletters for clubs and churches who have found the DTP revolution a god-send. Neat presentation with one or two illustrations can turn a boring article into a best seller. But not many people would consider producing a large number of pages regularly on the PCW. The length of time the printer takes to print out a single page would mean that you would have missed your deadline before page three was completed.

On the other hand there are

many times when you would gladly use a piece of graphics to brighten up a long report or even just give it an extra bit of interest with a fancy font. All desk top publishing programs can do this of course, but Stop Press allows you to do it with real flair. Stop Press is aimed not just at the laying out of two-column parish newsletters but also works well producing slick advertising fly-sheets, impressive letter-heads, fun party-invitations, exciting circulars or even just brighter business reports.

LET'S COMPROMISE

There is, of course, only so much program that can be packed into the limited space of a PCW and with a complicated concept like desktop publishing this means making compromises.

The choice is whether to use the available space to concentrate on graphics and design or on text handling. Stop Press definitely puts

the emphasis on design and graphics, and the most obvious sign of compromise is the fact that unlike its competitors it doesn't have an in built text editor.

Instead of editing the text in the program you prepare all your files in LocoScript (either 1 or 2 will do). Having perfected the grammar and spelling in friendly, familiar surroundings you mark all the italics, bold, underlining and reverse text with the usual LocoScript codes. The program picks all these up correctly although it can't handle codes like centring or different pitch sizes. You can try text files from

other word processors although these have varied results and



won't allow you to put in the emphasis codes (which has to be done within Stop Press).

You can then set the number and size of the columns you want on your page (up to 9) and run the text in. You can set windows to confine the text in a certain area or you can stop the flow of text by pressing [EXIT] - it usually stops at the end of the next line. And of course it stops automatically at the bottom of a page. You can then move on to the next column or you can save that page and start another page to take the overflow.

There are some very sophisticated features governing how the text is laid out in the columns. You can automatically centre everything, have it 'ragged right' (the words normally spaced set against the margin on the left), 'ragged left' (the

HOW DOES IT COMPARE?

So there are four desktop publishing programs out for the PCW: in order of appearance, Newsdesk International (Electric Studio, \$125.00), Fleet Street Editor Plus (Mirrorsoft, \$185.00), The Desktop Publisher (Database, \$99.00) and now Stop Press (AMS, \$????). Is any of them clearly the best?

As with all things in life, there is no simple answer. Two things are for sure though: Stop Press will kill Newsdesk stone dead - it does all that Newsdesk does and more, and does it better. Also, The Desktop Publisher has pretty much killed Fleet Street Editor - it is more reliable, has more readable body text, and is simpler to use.

So really the two contenders are Stop Press and The Desktop Publisher. The difference between the two is that The Desktop Publisher is very text oriented - you can actually edit text in the columns on the made-up page. However, its headline fonts are very basic and jagged. Stop Press is much more graphics oriented, and allows you to create some stunning visual effects on the page.

If you need to be able to edit the body text of articles much on-screen, you may find DTP more convenient, but for creating impressive headlines and illustrations, Stop Press is the winner. Why not get both!

text set hard against the right margin) or justified (the letters spaced to completely fill the line).

Then there is the ultimate feature - 'autoflow', which allows you to place a piece of graphics in a column of text and run the text around the edge of the picture to fit it. With an irregularly shaped illustration using justified text this looks particularly impressive and is popular with all the modern computer designed newspapers and magazines who want to show off what their systems can do.

OOPS!

In theory this should all work beautifully if you don't take into account Sod's Law of Desktop Publishing - "You never see the last spelling mistake until too late".

Once text is on the screen it is treated as graphics, ie. just a pattern of dots on the screen. You can't edit text as such, but you can blank over an unwanted paragraph and manually move the rest of the text up to fit. Similarly, you can correct spelling errors by writing a blank area over the mis-spelt word and then 'patching' a corrected version over. Problems only occur if the correction won't fit the space or when you've used justified text and there are odd spaces that are difficult to reproduce.

However, you can face major problems in placing text files on the page if things go wrong. When you are learning any system you are inclined to make mistakes. Normally

There are sensible fonts
AND THERE ARE EXOTIC FONTS
 And of course the statutory Old English font
 So Whatever You Want You will find
ONE TO SUIT -
 And if it doesn't quite fit you'll just
 Or else **Stretch it to fit**

this is no problem but if for instance you start filling the third or fourth column on a page which happens to have an illustration in it without putting autoflow on, the words run right over the picture and you have lost your place in the text file. The only answer seems to be to close the file and start again. The moral is, before any major text placing operation save your current version so that if anything goes wrong you can have another go.

There is another minor niggle in some of the settings that Stop Press has as its defaults (ie. the ones it uses unless you tell it otherwise). The program assumes that any text should be centred in the columns - not the most natural way to handle body text.

WHICH FACE TODAY?

On the other hand experimenting or 'lucky accidents' will also produce some startling effects that often do just as well. The greatest boon for this is the 'undo' facility which will put experiments back to where they were. This does not always work - specifically you can't undo the placing of text which has gone wrong - but even if it doesn't it is not too difficult to erase the part of the screen that has gone wrong and starting again.

You can divide the

ON THE MENU

It has to be admitted that Stop Press offers so many facilities that it could be quite frightening for the beginner. To overcome this the designers have come up with an ingenious double method of giving commands.

The main way to select functions like draw, fill, read a text file is by pressing a couple of buttons on the mouse to produce a screen-size menu. Every feature is represented by an 'icon' (a memory-jogging picture). Some of the icons are not too obvious at first sight - for instance there are five which are subtle variations of a disc drive and working out which is the one to load a file isn't obvious. But even the most entrenched 'manual ignorer' should get the hang of things by trying out each icon methodically. And if all else fails the manual is quite well written and attractively presented.

Once you've got used to Stop Press, having to call up the menu each time is tiresome, so every icon is given a grid reference by its row and column on the menu. You can do a function directly without bringing the menu up (like LocoScript's [+] key command shortcuts) by just pressing the two keys of the grid reference, eg. 'L4'.

page up into columns of equal size, an extremely useful feature, but allowing for up to nine columns seems a bit like overkill. On the normal A4 page even six columns would be getting a bit narrow although someone will probably find the nine column format ideal for laying out charts or tables.

The normal Amstrad screen typeface is also loaded automatically for body text, but if you would prefer there are a couple of small fonts that are available.

A major problem for any page designer is making everything fit. The main worry is whether a piece of text will fill a space - a situation that is admittedly better catered for in other DTP packages. If you have too much text one answer

is to run it to another page (the 'continued on p94' trick). A Stop Press document can only be one page, so you have to have a separate file for each page of your publication, although arranging for the overmatter from one page to run onto another is easy.

HEAD TO BIG?

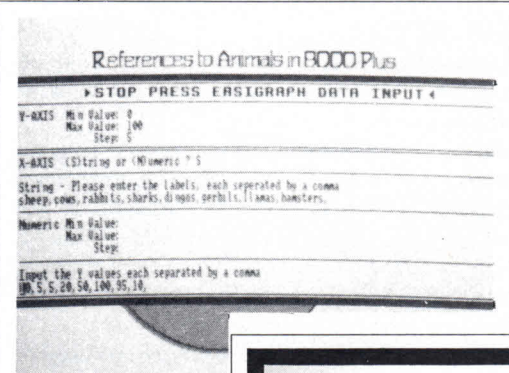
One area where you can get a lot of

PIXELS

When you display graphics on a computer screen, they are made up of thousands of dots which are either on or off. These dots are called 'pixels' (short for 'picture elements'). If you look closely in LocoScript or CP/M, you will see that each character is made up on an array of 8 by 8 pixels.

Stop Press is particularly good at tackling the constant battle of getting the headline to fit the space available. Each type face takes up a different amount of space; there are 18 different text sizes and the width and height of each face can be independently adjusted to produce "tall thin" or "short fat" versions, so you should find a suitable face that comes near.

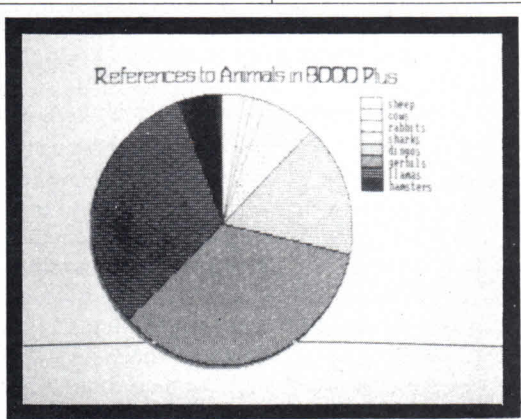
be charted and choose the options of Pie Chart, Bar Chart (or 'Histogram') or ordinary line graph. Stop Press then places your chart anywhere you want on the page and if you cannot find how to achieve exactly what you want by way of a graph you can add to or modify the resulting graph to suit. One option is to leave the areas of the bar or pie charts blank so that you can pick whichever 'fill' patterns for them you like.



▲ You use the same screen to enter the data for all the different types of graphs and pie charts

fun and produce interesting results in writing headlines. There are 14 different fonts

giving a wide variety of styles. Admittedly not all of them would be suitable for a normal newspaper format - a banner headline in Futurist or Old English might not have the immediate legibility that most editors would want. But there are some solid business type faces mixed in with these more exotic faces which are really intended for fancy invitations or letter-heads.



▲ The finished product. How the information looks in the form of a pie chart

Once you have chosen your typeface and size you can adjust things further by changing the 'kerning' (the space between the letters) to give a properly proportioned spaced feel, and/or the 'leading' (the space between the lines).

One slight problem with the kerning option in a heading is that it is inclined to cut down the space between words so much that they seem to run into one another - easy enough to get over by typing several spaces between words.

TAKE A GRAPH

One feature that is sure to cause interest is 'Easigraph', which at last provides a relatively easy method of presenting data graphically on the PCW.

A large number of PCW users are looking for a reasonable graph drawing package but many previous attempts have either failed through trying to cover every eventuality and therefore being too complicated or making life easy and being too primitive.

The Stop Press graph drawer is quite simple and there is a full example already loaded to let you see how things work. You just type in the numbers to

GRAPHICS POWER

Without doubt however, the strength of the program comes from the graphics section which is in fact better than any of the 'stand alone' graphics packages on the PCW. It is well designed and easy to use and carries most of the features you could want from it.

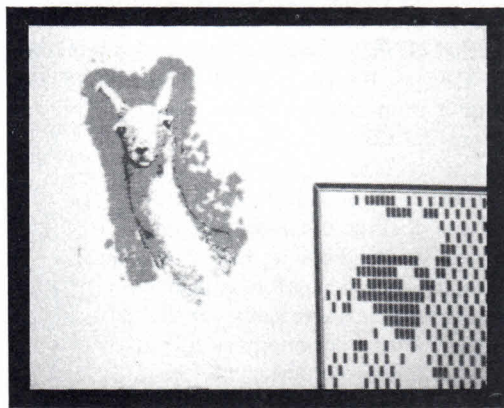
There is quite a range of clip art provided with the program and the designers have taken a sensible attitude choosing the sort of digitised pictures that would come in really useful for club newsletters, such as rugby posts or a badminton racket for instance. But if you get bored with these you can adapt them (or any piece of graphics),

FOR MOUSE HATERS

Stop Press will work by keyboard control alone - you can move the cursor around the screen and select from menus by using the arrow keys. However, it is much easier with a mouse, so if you can afford the extra money it's well worth it.

overlying text and adding new features.

For those times when you don't have a suitable clip art or digitised illustration to brighten up your text you can go away and draw it. You don't necessarily need to be 'artistic' to get something out of Stop Press. It has all the shape drawing facilities you want (triangles, squares, cubes, circles and ellipses) which can be empty, black or filled with a pattern as you require and you can 'fill' any



▲ You can see the effects of your changes as you use the zoom

PCW 8256, 8512 & 9512 SOFTWARE

GAMES

Title	Price
Batman	57.95
<i>Classic Quest Adventures:</i>	
Goblin Towers (moderate)	49.95
Forestland (hard)	49.95
Witch Hunt (very hard)	49.95
CP Compilation - with 3-D Clock Chess, Backgammon, 3-D Draughts and Bridge 2000 all on one disc	59.95
Distractions:	
3 graphics games compilation:	
On the Run, 2112 AD and Nexor	59.95
Double T Patience - compilation of six frustrating games including Kuala Lumpur, Poker Patience and Fourways	64.95
Graham Gooch Cricket (Ltd. Overs & Test Match)	49.95
Guild of Thieves	69.95
Gnome Ranger	59.95
Head over Heels	57.95
Heathrow/Southern Belle	57.95
Hitch Hikers Guide	65.95
Ingrid's back	59.95
Jinxter	69.95
Knight Orc	59.95
Lancelot	59.95
Leather Goddess (AO)	65.95
Living Daylights	49.95
Mindfighter	65.95
Pawn, The	69.95
Silicon Dreams	59.95
Starglider	69.95
Steve Davis' Snooker	52.95
Tetris: mind/strategy puzzle	59.95
Time and Magik Level 9 trilogy	
<i>Lords of Time, Red Moon and Price of Magik</i>	54.95
Tomahawk: helicopter sim.	57.95
Trivial Pursuit - Genus Ed.	39.95

Public Domain discs (see page 60) 17.50

EDUCATIONAL

Magic Maths (4-8 yrs)	39.95
Better Spelling (12-16 yrs)	39.95
Maths Mania (8-12 yrs)	39.95
Chemistry (12-16 yrs)	39.95
Better Maths (12-16 yrs)	39.95
Biology (12-16 yrs)	39.95

DATABASES

Cardbox	129.00
Cardbox Plus	199.00
Condor One	149.00
Masterfile 8000	119.00
TAIT Database and Labeller	49.95

PUBLISHING

Desk Top Publisher	99.00
Newsdesk International	125.00

STOP PRESS from AMS

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

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

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, Word-processor, database, graphics and communications 149.00

Money Manager Plus - cashbook/personal accounting 99.00

NewWord2 - only one available was \$275.00 but now \$150.00

Plan-It - desktop organiser, plan budgets, sort files etc. 39.95

Protex Filer - pop-up database module for Protex 69.95

Protex Office - as Protex Filer but with mailmerge and invoice generator modules 99.95

Protex PCW 179.99

Prospell PCW - spellchecker for most current wordprocessors including Wd/Star and LocoScript 89.95 p

Scratchpad Plus s/sheet 99.00 r

Tait Accounting System - small business accounting with Debtors, Creditors and Invoicing 129.00 p

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

Tempdisc 1 (needs Loco1) 59.95

Tempdisc 2 (needs Loco2) 59.95

Tempdisc 8.2 (needs Loco2, Locomail and 8512) 67.95

Tempdisc 9 (for 9512) 67.95

Touch 'n' Go - the friendly approach to typing skills 69.00

PERIPHERALS

8256/8512 Seal 'n' Type Keyboard protector 29.95

AMX MOUSE plus interface from AMS - one of the most popular and sought after peripherals for your PCW, especially with Stop Press 165.00

PCW Joystick Interface from Kempston 59.95

SCANNER - Master Pack - a scanning device which attaches to a PCW printer head to copy photos or other art work, Master Scan software and Master Paint, a powerful graphics package. Compatible with Desktop Publisher, FSE and Newsdesk International 279.00

SCREEN FILTER 29.95

TASMAN RANGE

Tasword 8000	79.95
Tas-spell 8000	56.00
Tasprint 8000	52.00
Tas-sign 8000	89.95

CONSUMABLES

PCW 8000s Printer Ribbons

Black Carbon	19.95
Black Nylon	19.95
Coloured Nylon - Blue, Red, Green or Brown	24.95

PCW 9000s Printer Ribbons

Black Carbon	15.95
Black 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 Goth. 10/12; Script 12	each 19.95
--	------------

3" disc drive cleaning kit 19.95

CF2 3" discs each 7.00

LOCOMOTIVE

LocoScript 2 (v. 2.16 - N/E) 87.00

LocoScript 2 + LocoSpell 130.00

LocoMail2 105.00

LocoSpell2 75.00

Locomail1 to 2 upgrade 18.50

LocoSpell1 to 2 upgrade 18.50

LocoScript2 upgrade to version 2.16 (N/E) 18.50

(Original disc must be returned certified mail for all upgrades)

PCW 8000s using LocoScript 2.12 and above

Printer Character Set Disc for defining new character sets 59.95

Extra Printer Drivers Disc containing a Printer File for every current 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

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

LocoFont SET 2 adds a further set of six fonts 65.00

LocoKey to customise your keyboard layout 59.95

Locomail Sorting Program 39.95

Locomail2 Examples disc 17.50

LocoMail2 New User Guide 54.95

PCW 9512s using LocoScript 2.12 and above

Printwheels Disc allows the correct printing of the characters from any printwheel supplied for the built-in 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

Printer Driver and Character Sets supports a very 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

Watch for more new titles being added to next month's list including a great new card file database program from Locomotive called LocoFile (which runs with LocoScript2).

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Available from The Amstrad User while stocks last

STOP PRESS COMPATIBILITY

The recent DTP boom on the PCW has meant that there are a large variety of different manufacturers marketing different digitisers, mice, software and so on. To their credit, AMS have tried to make Stop Press compatible with as many as possible of these third-party items, not just with their own products.

Stop Press can of course be driven with an AMX Mouse, and the Kempston mouse also works (although only having two buttons rather than AMX's three means you have to use the [DOC] key as the third one). The Electric Studio Light Pen and Mouse and the Trojan Light Pen will not work as input devices.

Stop Press can read most graphics files which are stored as pixel-for-pixel screen images. This means it should work with pictures produced by MasterScan, MasterPaint, Electric Studio Art, Draughtsman and the Rombo and Electric Studio video digitisers. Also, graphics (but not necessarily made-up pages) stored by Fleet Street Editor Plus, Newsdesk International and The Desktop Publisher should be OK.

Picture files stored by DR Graph, DR Draw, Microdraft and Grafpad will not work (these use special format files, not screen pixel images).

shapes with one of 64 patterns.

There is a solidity about the graphics and a precision that makes detailed work easy. The zoom facility is particularly good. You position it easily where you want on the screen and the 'zoomed' part shows up in a window at the bottom of the page so you can see the effect of changes as they happen. The cursor is very steady under the mouse's control so picking any spot exactly is easy.

You can design your own area fill patterns, and people using the program for technical drawing can design their own special symbols. Electronic circuits would be easy if you had the symbol for a transistor defined which can easily be placed anywhere you want on a diagram.

'Ghosting' is a real fun feature. It simply allows you to superimpose one image with another. Every image is made up of a mixture of black and white pixels (black and green on 8000 series screens!) and the trick with ghosting is that you can superimpose shaded fill patterns on solid objects to give a grey effect, or ghost a picture with itself to make a shadow - this gives a three dimensional look to an image.

TEXT OR GRAPHICS?

But even more important from a DTP point of view is the way that you can use the graphics package to increase the flexibility of the other sections of the package.

Everything on screen can be handled like a piece of graphics. Just as you can rotate a picture in 90° turns, double its size or reverse it you can do the same with a headline, or a piece of text giving an almost endless variety of design 'tricks'.

But this has a far more practical purpose for those few moments of life when things go just a little wrong. If you put a piece of text in the wrong place you just move it to the right spot like a piece of graphics. The program adds a lot of guide-lines to help you line things up just right, and even if you just get it slightly wrong there is a 'slip and slide' option which allows you to fine-tune the position until it is spot on.

Headlines can be written in any of the fill patterns and you can use ghosting to make headlines and reversed boxes more interesting.

THE FINAL PRODUCT

Printing out a DTP produced page is never quick on the PCW, and Stop Press is not really any quicker than its rivals (it takes about 20 minutes a page). However, the program does allow you to specify how many copies of each page (up to 9) and to choose how many different pages you want to print. On an 8512 or a 9512 you can save up to 12 pages on a disc (3 on an 8256 disc) so in theory you could set the machine to print a total of 108

pages (while you were away on your holidays presumably) although whether the printer ribbon could stand this is debatable.

Stop Press will run on a 9512 using an 'Epson compatible' dot matrix printer - virtually all dot matrix printers will work. All you have to do is, before running Stop Press, give the CP/M command `DEVICE LST:=CEN`. Converting the Stop Press work discs onto 9512 format is not hard, but isn't covered in the manual (which assumes auto-booting 8000 series discs) at all, so you need a bit of intelligence.

Normally you would really want to print out a single page and photocopy it. It produces a quite reasonable quality of print-out with an even texture.

BUGLINGS AND BOGGLINGS

With any program as complicated as Stop Press you would expect to find a few bugs in the first version. In fact the only bug we discovered during the review was a problem with running text into the last column on a page. The program seems to think there are two very narrow rogue columns between the last two you set up, so if you aren't careful you get text running into those.

AMS say they have fixed this problem, and they will produce a corrected program which will be available free to anybody who buys the early version. However, another problem which is apparently harder for them to fix is to do with taking graphics from non-AMS systems. Loading full screens (like from MasterScan) works fine, but although the manual claims that Stop Press can read the clip art files from the other desktop publisher programs, it doesn't.

Notwithstanding these niggles, Stop Press is an excellent package that gives wide scope for page design of all kinds. The graphics design facilities are so good that people already using other DTP packages might consider buying Stop Press to use in conjunction with more text based programs.

ARE YOU AWARE?...

...that Pactronics, the leading Amstrad software and peripherals suppliers, now have a **3" DISK HEAD CLEANER** for your CPC and PCW Disc Drives.

DID YOU KNOW?...

...that Pactronics - the "Cat's Whiskers" in Amstrad software and peripherals, proudly announce the arrival of the superb Kempstone **MOUSE for the CPC** which comes complete with its own software.

...that Pactronics has the newly released **PROTEXT OFFICE** and **PROTEXT FILER** two brilliant new programs to run alongside **PROTEXT, PROSPELL, PROMERGE**, etc.

...that Pactronics has the widest range and best educational software from ages 3-16 and will shortly have another full range of programs written in Australia.

AND DID YOU KNOW?...

...that Pactronics have just released the great adventure trilogy "**TIME AND MAGIK**" for the CPC Disc and Tape, and look for our other great games, **GOBLIN TOWERS, FORESTLAND, WITCH HUNT, CATACOMBS, TEST CRICKET** etc.

...that if you have **MONEY MANAGER** and **PLAN-IT** then you really have everything you need for day to day planning, budgeting etc.

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...that if there is anything you want for your Amstrad CPC (or PCW or PC for that matter) and that includes **Joysticks, Joystick Cards, Disc Boxes** etc., then ask for the Pactronics product by name at the following stores:

John Martins, Harris Scarfe, Myer, Harvey Norman, Grace Brothers, Chandlers, Computer Base (Castle Hill & Bankstown), Maxwells of Rockdale and Ettalong, B & B Computers of St. Mary's or other retailers around Australia.

NSW: 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 Street, Newstead. (07) 854 1982

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

WESTERN AUSTRALIA: Pactronics WA, 113 (rear) High Road, Willetton, 6155. (09) 354 1122

NEW ZEALAND: Micro Dealer, 60 Terakau Drive, Palupanga, Auckland (09) 274 9300



HOLD THE FRONT PAGE

Alec Rae looks at the hectic, pressurised world of newspaper and magazine writing

Everyone may have a novel in them but even a PCW will not necessarily bring it out. Is there not an easier way to make money from writing? The sheer volume of words printed in newspapers and magazines means that there is a constant demand from editors for interesting, good quality articles, which you can exploit.

Newspaper and magazine publishing is a growth industry. The megalithic Fleet Street dailies may be shuddering but to make up for that every tiny village and hamlet throughout the country now has its own weekly, even if it is produced by a man and a dog with a John

Bull printing kit. The magazine market is expanding even faster. Have you ever counted how many magazines there are for the Amstrad PCW nowadays?

This means that everyone who wants to enter the hurly burly of freelance writing should be able to find themselves a niche somewhere. Probably the biggest problem is finding which niche.

Budding novelists are told to read what is popular to see what the market wants. This is ten times more important in freelance writing. The good news journalist is a person totally obsessed with news - watching every TV news broadcast,

listening to the Radio news every hour and reading every newspaper they can lay their hands on. The good technical journalist knows what the current topics of interest are and which magazines have printed what article recently.

The first thing you will notice is that each section of the media has different priorities and each treats the same story in totally different ways. The best Stock Exchange insider-dealing scandal won't find its way on to the front page of the Truth and a sex expose needs to involve a major politician or captain of industry before it gets a full column in the Sun or Age.

The same holds true all the way through. The Bogtown Bugle will drop a brilliantly written article on nuclear disarmament in favour of an expose of nobbling tactics at the local flower show. Before you even think of selling a story be certain that you are looking at the right market, and once you've chosen your 'angle' on a story then exploit it to the full.

It is also important that you should try to write to the style of the publication you are approaching. This can vary considerably. For example, The Amstrad User takes a quite simplified, light-hearted approach to its technical subject that would be regarded as sacrilege in 'serious' technical mags. And don't use the same style for an arts magazine as you would for a popular daily.

"I AM FLUENT IN JOURNALESE..."

In newspapers there is a basic style you should aim at no matter what. There is a lot of self-satisfied sneering about 'journalese' usually from people who were frightened by their teachers at Primary School. To these people writing isn't writing unless it has a couple of "apertaining to's" and a "23rd inst." in it.

Yes, newspapers do the unforgivable - they start sentences with 'And' or 'But' and end them with prepositions. You just have to accept that - you won't change them. Newspapers are written the way

FREE ADVERTISING

If there has been a population explosion in publications this fades into insignificance compared with the increase in the number of press releases arriving on editor's desks.

Everyone knows that a press release is a method of you getting the newspaper to print how wonderful your company is. The trick is to find a way so that it doesn't appear that that is happening.

The press release must contain some substance. There are still people sending out press releases filled with nothing but glowing praise of their company and wondering why it is not printed.

On the other hand keep the content simple enough that even a sub-editor can understand it. Nothing will get dumped quicker than something that makes the sub feel intellectually inferior. Lists of figures and/or jargon are dangerous.

Don't say things like "This is the best product" or "We have the fastest delivery" unless it can be proved by an independent source. Any good publication will tone it down and not thank you for the extra nuisance.

If possible always add a photograph and try to make it as interesting as possible. Editors are always looking for good pictures to brighten a page up and will carry a second rate story if it has a good picture.

Your best chance of success is if you actually turn your P.R. into a real story. To say your company has done so well that you have had to move to bigger premises might get a couple of inches space inside. Say that the planning authority have blocked your expansion plans and such a highly successful company is being handicapped and you can get the front page lead.

people speak. Forget the rules of grammar and letter writing techniques and remember how you talk.

For news writing in particular try for the vocabulary you would use to explain something to a bright eight year old - with some newspapers drop that to a six year old. That means no polysyllabics (note to Sun reader: that means big words).

Keep the sentences short. Some papers specify no more than 10 words each, and keep the paragraphs to about two sentences. It is true that virtually every publication will 'sub' your work (edit it to suit the 'house style') but if it is too far from what is acceptable you'll find your masterpiece 'spiked', or as non-newspaper people call it 'dumped'. It is also important not to use jargon like 'spiked' or 'house style' and if you do always explain.

IN THE BEGINNING...

The most important part of your article will be the introduction. Editors take the first paragraph very seriously. If the reader is put off in the slightest by the intro they need to be keen to plough on to read the second paragraph. Generally speaking it is assumed readers are never that keen.

News story introductions have certain conventions. They traditionally always answer every question you can think of - Who? What? Where?, When?, How? and even Why? If these questions are not answered in the first sentence they will need to be in the first paragraph.

Don't try the old 'sting in the tail routine'. Newspapers have an unpleasant habit of cutting articles starting at the bottom and working upwards so if the whole point of your story is in the last sentence you could have a problem. Be prepared for your sparkling prose to be changed; after all, the sub-editor has to justify his existence somehow.

If you are writing a commissioned article always make it as near to the correct length as you can. Don't think that an editor will be delighted if you stick in an extra

1000 words that you are not charging for. It could take longer to cut the words out to fit it to the space on the page than to write the article from scratch.

But generally make it as simple as possible. Let someone who doesn't know what you are writing about read it before you commit it to the Royal Mail's care and see if they understand it. If not, rewrite it until they do.

LET ME THROUGH - I'M AN EXPERT

One quick route to a healthy income in freelance writing is to be a specialist. This is especially true for magazine writing where the bulk of the articles are informative rather than news items. Despite what everyone seems to think newspaper and magazine writers are not experts on everything they write about. Chances are they're not experts on anything. There is often the time when magazines are looking for expert advice on technical subjects - especially if that expert can write in a way that non-experts can understand.

If you feel you have this kind of specialist knowledge again pick your market very carefully. Write to the editor explaining what you can do and give examples of your writing. Or give him a ring (not on a deadline day) and find out his needs.

Remember that although you find your subject fascinating not everyone does (if they did you wouldn't be an expert, would you?). You need to impart your knowledge clearly enough for an idiot to understand. This can be quite frustrating for an expert but it can also be financially rewarding which makes up for a lot.

WHAT IS A NEWS STORY?

There are those moments when you are caught up in the middle of a bank robbery or see a plane crash when there is no doubt that you are on to a story. But a freelance's life would be pretty barren sitting waiting for that kind of chance.

A good freelance doesn't depend



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on luck. He recognises stories that the layman doesn't see. A famous newspaper anecdote is of a report coming in to a local newspaper about a women's institute meeting filled with details of the agenda and who made the tea. In the last paragraph it said, "At the end of the evening the ceiling fell in and Mrs Smith had to be taken to hospital." Missing the story is not often as obvious as this but it happens all the time.

The best money comes from big national daily papers but unfortunately you usually need a good story. It is more sensible to try your local paper - a publication that is usually read with a fervour and attention to detail that would frighten the daily newspaper boys. Local newspapers are more interested in the fact that the event took place within 10 square miles of the office and mentions at least six local people than anything else.

Magazines aren't usually so interested in news. You'll need to spot a gap in the kind of articles they have recently run and aim to fill that gap.

I SUBMIT

Okay, so you know how to write journalist's English, you know how to spot a story or you know how to write a technical article. What do you do now? Editors really do like

to receive ideas for articles or stories from anyone - you would be surprised how much of any publication is written by freelancers, so don't hang back.

If you are trying to get a piece onto the news pages of a paper then speed is obviously of the essence. Don't agonise over the phrasing for a week, or either you will be beaten to the story or it will die anyway.

For feature writing things are a little more relaxed. Always try to contact the editor before writing any major feature or you could be wasting your time. Ring up - letters saying 'would you be interested in an article on something' tend not to get answered.

Minor features can be submitted on spec. As usual, submit a double-spaced typescript with generous margin. Any illustrations help - sometimes good illustrations can sell a poorly written article. Always enclose a reply paid envelope if you want any response at all, even a rejection. Most editors will simply not reply if they have to find an envelope, copy out the address etc.

It is bad practice to submit to more than one publication at once. If two rival publications both run your article at the same time they will both be very annoyed, probably you won't get paid, and you will be effectively blacklisted by them both.

Finally, don't be impatient and ring up the editor every day for an acceptance or your payment. The contents of a monthly magazine is probably written a month before it goes on sale, and payment for publication is usually made a month after that. Being optimistic, if you send an article to a monthly it won't appear for two months and you won't get paid for three.

SUB-EDITOR

In newspapers and magazines virtually everyone is an editor of one sort or another. (Journalists are famous for asking for a pay rise and settling for a 'promotion' to being called editor of something.) Sub-editors however are a different breed. They are the people who do the hard slog of converting misspelt, ungrammatical, overlength copy (what is written) into a fit state to appear in print.

HOUSE STYLE

All the little details that sub-editors like to keep consistent. Whether you write 'PCW' or 'P.C.W.' for instance, whether you use '-ise' or '-ize' endings. If you write regularly for a really organised publication they might send you a style sheet so you can write in the correct house style and save the subs a lot of trouble.

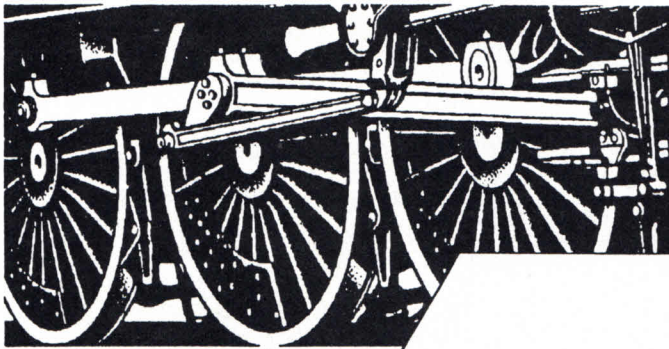
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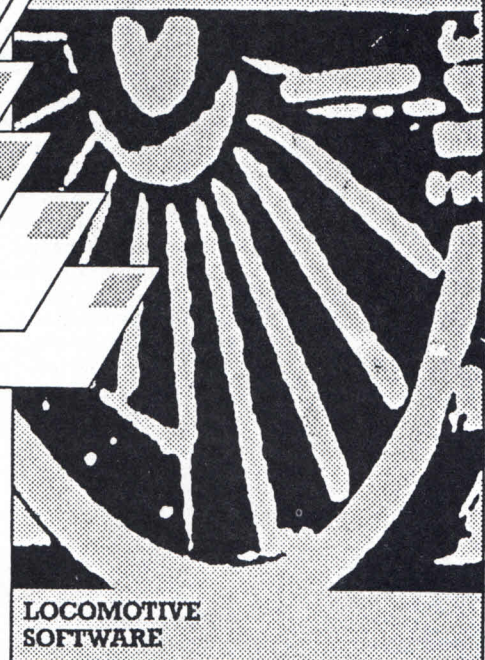
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DAATAfax

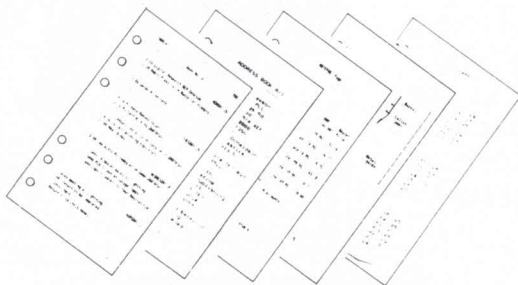


DAATAfax for the AMSTRAD PCW 8256/8512/9512

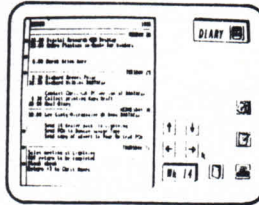
This exciting new product is a computer-based personal organiser that generates Filofax (TM) compatible output using the Amstrad PCW printer, together with DAATAfax computer stationery, which is available pre-punched with six holes either in white or a range of pastel colours.

The program, which consists of four modules, makes use of ICONs for ease of use and can be used either by the keyboard function keys or alternatively via the Kempston Mouse.

The datafiles generated by the program can be backed up on disc so eliminating the heartaches associated with losing your Filofax!

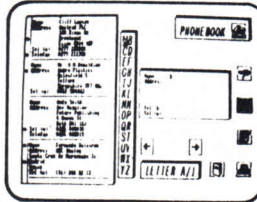


DIARY



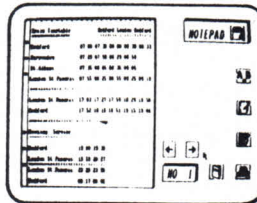
This features six lines per day and four days per page. Printing is selectable for a range of weeks up to a complete year. The powerful on-screen text editing facilities include cut and paste, enabling entries to be moved to other parts of the diary via the clipboard.

PHONEBOOK



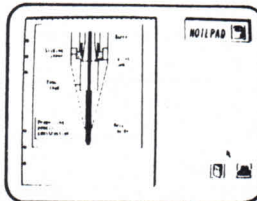
The phonebook allows names, addresses and telephone numbers to be stored in abbreviated one or two line formats, or as full entries. An alphabetic index is provided enabling fast access to the entries. The powerful search facility enables entries to be located by matching phone numbers and/or part of the name and address.

NOTEPAD



This option allows text entry in free format and can be used to hold notes in greater detail than those held in the diary. As well as comprehensive text editing; facilities which include word-wrap, cut and copy, cut and paste, tab setting are provided which are particularly useful for printing timetables, expense sheets, bank balances etc.

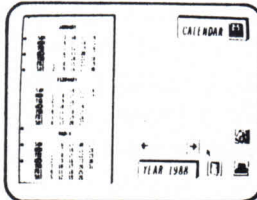
GRAPHICS



A graphics conversion program is provided enabling graphic images generated from within "The Desktop Publisher" (Database) to be read into the Notepad Option, which can then be printed onto DAATAfax paper.

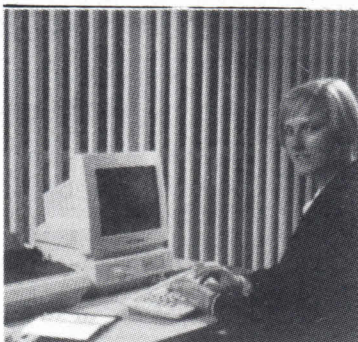
A further conversion program is provided for Locoscript files enabling these also to be read into the Notepad.

CALENDAR



This option prints three months per page for any year. The selected month is also shown whilst in the Diary Option (standard mode).

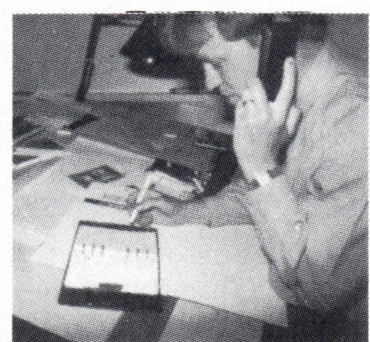
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ORCS AND DOVES

Tony Flanagan magicks his way through Knight Orc the new adventure from Level 9

This game is similar in style to Level 9's recent solo effort, Gnome Ranger, reviewed a few issues ago. Once again we are transported to a mythical land inhabited by a cocktail of out and out weirdos - Odin (renowned trumpet enthusiast), Boadicea (infamous anglo-saxon feminist) and Fungus the Boggitman, highly respected for his SF novel, The Trouble with Lichen.

You take the part of an Orc who goes by the enchanting name of Grindleguts. Orcs, as you're no doubt aware, are very smelly creatures who live in worm-infested holes and are forced to eat spiders to stay alive. (What I want to know is what are the council doing about it?) Indeed, it seems that Orcs have nothing very much going for them at all. Not only are they indescribably ugly but they lack any useful skills whatsoever (and that's without the benefit of a YTS scheme!)

As Grindleguts is slightly less intelligent than his fellows he has been 'volunteered' to take on the odious role of hero. This involves being foolhardy to the point of insanity, attempting to solve impossible puzzles and generally dying several times over for some frivolous cause. Still, it's not your fault they strapped you to your horse or, kind dears that they are, that they entered you for the jousting tournament, knowing that you hadn't a chance in Hades of winning.

ARE YOU SITTING COMFORTABLY?

In this way, the trilogy of games begins. Your initial task is to avoid being killed by any of the many characters you encounter as you explore this side of Orc Mountain. Most of them are very vicious and delight in nothing more than beating an Orc or two to pulp, or watching them plead for mercy as in a James Anderton fantasy.

When you are not being beaten up yourself - usually lethally - you stand back and watch the characters beat the hell out of each other. If

you can manage to survive long enough you must find a way of getting across the viaduct to Orc Mountain, the focal point of games two and three: A King of Magic and Hordes of the Mountain King.

TAKING THE SCENIC ROUTE

One of the advantages of this game, like Gnome Ranger, is that there are a number of powerful commands available which really makes map-making unnecessary. GO TO enables you to go to most destinations taking the scenic route. In other words, each location you pass through is described, brief as such descriptions may be. Similarly, RUN TO also takes you relatively quickly to your choice destination but omitting the descriptions.

On the other hand, the advantages afforded by such commands can, paradoxically, detract from the overall quality of the game. The short-cuts made possible by such commands mean that though action is speeded up a great deal of atmosphere is lost. One of the most rewarding features of adventure playing is when you find an object in the unlikeliest of places. The implication is that Level 9 are placing more emphasis on problem-solving than other traditional ingredients of adventure playing.

Still, one of the fascinat-

ing features of Knight Orc is the way in which you can get the other characters to work for you. The WAIT command, for example, can be used to assemble characters at a particular spot for a specific purpose. They can also be sent to perform tasks, the results of which you find out about later on in the gameplay.

The text is accompanied by some adequate graphics screens - not up to the standard of The pawn by any means - though these add little to the game and only slow things up anyway. The package includes a comprehensive play guide as well as a short novella, as per the usual Rainbird packaging.

There is no doubt Knight Orc is an addictive adventure, with lots of action, plenty to explore and mind-bending puzzles.

```

You go east and are in a juniper underbrush. Exits lead in all
directions. You can see Symonism the wizard and Denzyl.
Symonism the wizard goes south.
> EXAMINE DENZYL
He is stupid.
He snuffles quietly.
> DENZYL, FOLLOW ME
Denzyl says, "Sure."
A male voice in the distance shouts, "Hey! Give that back!"
> RUN TO CASTLE
You are outside an ugly castle in a hornbeam tangle. Exits leads in
all directions and inside. You can see a drawbridge. The drawbridge is
closed.
Denzyl enters from the north.
> CLIMB WALLS
You struggle with the climb and are on a lead rooftop. From this high
lookout there is a dizzying view across the whole forest. In the
distance is a gibbet, a clearing, a crossroads, a fairground, a forest
lawn, a cave, a royal oak, a tower, a viaduct and a well. An exit
leads downwards.
> D
You go downwards and are in the single, large entrance hall at the
base of the keep. Exits lead south through a door and upwards. You can
see the knight in white satin. The pallid knight leaps up in rage.
He shouts, "An orc! Let's kill it!" and attacks you, but you dodge.
>
    
```

▲ Knight in White Satin? I thought that was a song.

POKER MACHINE

This month we only have one PCW listing but it's a beauty. Bob Sharpen has sent his version of poker machine.

This month's listing is a little longer than most, however it is well worth typing in. Like other computers, the PCW should not be without a version of Poker Machine. Bob Sharpen is the man to thank for the code.

When typing in the program, you should be aware of a few changes that need to be made. If you take a look at the screen dump in the box at the bottom of the page, you will notice that the lines between 310 and 480 have funny little characters in them. Comparing these lines with the actual you will see a totally different symbol.

The reason for this is that the character set in the PCW is different to that of the printer. To over come this make a note of what the funny character looks like on the printer compared to the screen definition. Where you find that particular symbol in the listing (only enclosed in the quotes) change it to the correct definition. To display the correct symbol use the chart below.

- Press Alt, Shift and 9
- Press Extra and y
- Press Alt, Shift and . (Period)
- Press Alt and . (Period)
- Press Extra and p

```

310 PRINT FNp$(20,28);"THREE YYYYY WIMS ***** $120"
320 PRINT FNp$(21,28);"THREE EEEEE WIMS ***** $16"
330 PRINT FNp$(22,28);"TWO EEEEE AND ONE YYYYY WIMS ***** $16"
340 PRINT FNp$(23,28);"THREE EEEEE WIMS ***** $12"
350 PRINT FNp$(24,28);"TWO EEEEE AND ONE YYYYY WIMS ***** $12"
360 PRINT FNp$(25,28);"THREE OOOOO WIMS ***** $8"
370 PRINT FNp$(26,28);"TWO OOOOO AND ONE YYYYY WIMS ***** $8"
380 PRINT FNp$(27,28);"TWO YYYYY AND ONE YYYYY WIMS ***** $4"
390 PRINT FNp$(28,28);"TWO YYYYY AND ONE EEEEE WIMS ***** $4"
400 PRINT FNp$(29,28);"TWO YYYYY AND ANY OTHER WIMS ***** $2"
410 GOSUB 1440:GOSUB 1430:REM "Draw further boxes
420 move=move-1:PRINT FNp$(9,30);"** THIS IS MOVE NUMBER"move
430 PRINT FNp$(2,29);"***** ULTRA POKER MACHINE *****"
440 PRINT FNp$(12,30);"** YOUR PRESENT BALANCE IS $";MID$(STR$(money)
450 PRINT FNp$(11,30);"** YOUR WINDINGS ARE $";MID$(STR$(winnings),2
460 GOSUB 1290
470 PRINT FNp$(14,30);"** :revs:" PRESS P TO PLAY MACHINE "nor$
480 PRINT FNp$(15,30);"** OR Q TO QUIT"
    
```

▲ What the graphic characters look like on the screen

- Press Extra and d
- Press Extra and >
- Press Alt, Shift and =

In line 1150 you will find even more funny symbols, the correct keypresses are shown below.

```

1270 DATA "† (Extra and ;)", "° (Extra and 9)",
          "¶ (Extra and r)", "§ (Extra and =)", "f",
          "e (Extra and t)"
    
```

After changing all the correct symbols you should have a working version of Poker Machine. With a little fiddling around, you may even modify it to use graphics. Good luck...

```

100 ' Ultra Poker Machine
110 ' by Bob Sharpen
120 ' The Amstrad User, Nov. 1988
130 '
140 PRINT CHR$(27);"0"
150 esc$=CHR$(27)
160 cls$=esc$+"E"+esc$+"H"
170 rev$=esc$+"p":'reverse video ON
180 nor$=esc$+"q":'reverse video OFF
190 cof$=esc$+"f":'disable cursor
200 cuo$=esc$+"e":'enable cursor
210 DEF FNp$(x,y)=esc$+"Y"+CHR$(x+31)+CHR$(y+31)
220 PRINT cof$
230 GOTO 270
240 a$=lt$(1):FOR b=2 TO 20:lt$(b-1)=lt$(b):NEXT b:lt$(20)=a$:RETURN
250 a$=md$(1):FOR b=2 TO 20:md$(b-1)=md$(b):NEXT b:md$(20)=a$:RETURN
260 a$=rt$(1):FOR b=2 TO 20:rt$(b-1)=rt$(b):NEXT b:rt$(20)=a$:RETURN
270 GOSUB 940:REM INITIALIZE
280 REM *****
290 REM start of routine
300 x=18:y=25:w=40:h=12:GOSUB 1310:REM
    'Draw a box
310 PRINT FNp$(20,28);"THREE ===== WIMS
    ..... $120"
320 PRINT FNp$(21,28);"THREE VVVVVV WIMS
    ..... $16"
330 PRINT FNp$(22,28);"TWO VVVVVV AND ON
    E ===== WIMS , , , $16"
340 PRINT FNp$(23,28);"THREE <<<<< WIMS
    ..... $12"
350 PRINT FNp$(24,28);"TWO <<<<< AND ON
    E ===== WIMS , , , $12"
360 PRINT FNp$(25,28);"THREE ; ; ; ; WIMS
    ..... $8"
    
```

```

370 PRINT FNp$(26,28);"TWO ;;;; AND ON
E ===== WINS ,,,, $8"
380 PRINT FNp$(27,28);"TWO %%%%% AND ON
E '''' WINS ,,,, $4"
390 PRINT FNp$(28,28);"TWO %%%%% AND ON
E VVVVV WINS ,,,, $4"
400 PRINT FNp$(29,28);"TWO %%%%% AND AN
Y OTHER WINS ,,,, $2"
410 GOSUB 1440:GOSUB 1430:REM 'Draw fur
ther boxes
420 move=move-1: PRINT FNp$(9,30); " ~~
THIS IS MOVE NUMBER"move
430 PRINT FNp$(2,29);"+,+,+, ULTRA POKE
R MACHINE +,+,+,"
440 PRINT FNp$(12,30);" ~~ YOUR PRESENT
BALANCE IS $";MID$(STR$(money+wins),2);
450 PRINT FNp$(11,30);" ~~ YOUR WINNINGS
ARE $";MID$(STR$(winnings),2);
460 GOSUB 1290
470 PRINT FNp$(14,30);" ~~ ";rev$;" PRES
S P TO PLAY MACHINE "nor$
480 PRINT FNp$(15,30);" ~~ OR Q TO QUIT"
490 prompt$=" ":match$="PpQq":GOSUB 157
0:IF answer >2 THEN GOSUB 1510
500 money=money+wins-1:GOSUB 1290
510 GOSUB 750:REM 'Spin the reels
520 GOSUB 560:REM 'Payouts
530 IF money<1 THEN PRINT FNp$(14,30);
"YOU'VE DONE ALL YOUR DOUGH! " :GO
SUB 1520
540 GOSUB 1280:GOTO 370
550 REM *****
560 REM 'Payouts
570 d=VAL(LEFT$(lt$(1),1)):e=VAL(LEFT$(
md$(1),1)):f=VAL(LEFT$(rt$(1),1))
580 reel=100*d+10*e+f
590 wins=0:q$=""
600 IF reel=222 THEN wins=120:q$="JACKP
OT! THREE ====="
610 IF reel=111 THEN wins=16:q$="THREE
VVVV"
620 IF reel=112 THEN wins=16:q$="TWO VV
VV, ONE ="
630 IF reel=333 THEN wins=12:q$="THREE
<<<<"
640 IF reel=332 THEN wins=12:q$="TWO <<
<<, ONE ====="
650 IF reel=444 THEN wins=8:q$="THREE ;
;;;"
660 IF reel=442 THEN wins=8:q$="TWO ;;;
;, ONE ====="
670 IF reel=556 THEN wins=4:q$="TWO %%%
%, ONE ''''

```

```
### TWO 0000, ONE YYYY WINS $12 ###
```

```
0000
```

```
0000
```

```
YYYY
```

```

** THIS IS MOVE NUMBER-6
** YOUR WINNINGS ARE $0
** YOUR PRESENT BALANCE IS $96
** *****
** OR Q TO QUIT

```

```

THREE YYYY WINS ***** $120
THREE EEEE WINS ***** $16
TWO EEEE AND ONE YYYY WINS ***** $16
THREE 0000 WINS ***** $12
TWO 0000 AND ONE YYYY WINS ***** $12
THREE 0000 WINS ***** $8
TWO 0000 AND ONE YYYY WINS ***** $8
TWO YYYY AND ONE YYYY WINS ***** $4
TWO YYYY AND ONE EEEE WINS ***** $4
TWO YYYY AND ANY OTHER WINS ***** $2

```

▲ What you would expect from a winning hand

```

680 IF reel=551 THEN wins=4:q$="TWO %%%
%, ONE VVVV"
690 IF reel>551 AND reel<556 THEN wins=
2:q$="TWO %%%%"
700 IF wins=0 THEN GOSUB 1440:PRINT FNp
$(2,32);" NO LUCK THAT TIME ":G
OSUB 1280:RETURN
710 GOSUB 1290:spin$=b$(INT(RND(1)*6+1)
):spin$=spin$+spin$+spin$
720 GOSUB 1440:PRINT FNp$(2,28);spin$;"
";q$;" WINS $";MID$(STR$(wins),2);" ";
spin$
730 winnings=winnings+wins:RETURN
740 REM *****
750 REM SPIN THE REELS
760 FOR spin=1 TO INT(3+RND(1)*6)
770 GOSUB 240:GOSUB 250:GOSUB 260
780 GOSUB 1470:REM 'Draw further boxes
790 PRINT FNp$(5,34);MID$(lt$(1),2);FNp
$(5,44);MID$(md$(1),2);FNp$(5,54);MID$(
rt$(1),2)
800 NEXT spin
810 GOSUB 1290:PRINT FNp$(5,34);MID$(lt
$(1),2):GOSUB 1290
820 REM *****
830 FOR spin=1 TO INT(3+RND(1)*6)
840 GOSUB 250:GOSUB 260
850 PRINT FNp$(5,44);MID$(md$(1),2);FNp
$(5,54);MID$(rt$(spin),2):NEXT spin
860 GOSUB 1290:PRINT FNp$(5,34);MID$(lt
$(1),2);FNp$(5,44);MID$(md$(1),2):GOSUB

```

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

For just \$75.00, LocoFont gives you ten distinctive typestyles on the PCW's built-in matrix printer.

With LocoFont you can select a typestyle to fit the mood of your writing. Use the Script font to thank Aunty for the socks at Christmas, the Roman font for professional business letters, the Copper Plate font for stylish invitations - or cut a dash with Deco.

To select a typestyle, simply pick the font you require from one LocoScript menu.

Of course, coming from Locomotive Software, all ten styles include all of LocoScript2's characters and accents. You'll even get better looking text in 15 and 17 pitch - the new fonts have twice the resolution of the old!



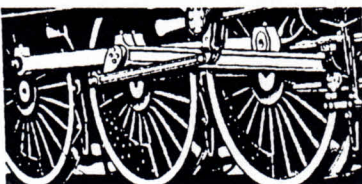
LocoScript2 - New Edition!

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 typestyles. 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.

Note: An upgrade of LocoSpell1 and LocoMail1 is also available for \$18.50. For more information ring (03) 233 9661.



LOCOMOTIVE SOFTWARE

Dear Aunty Mary

Thank you for the wonderful socks you sent for Christmas. They fitted perfectly, and were right colour to go with my new suit.

I hope that you and Uncle Tom had as enjoyable Christmas as I did. I expect the weather was rather warmer in Spain than it was back home.

Yours

DOMINIQUE'S

Saturday 12th August

Egg Mayonnaise

Deep Fried Brie with Garlic

--&--

Poulet Rôsti

Beef Stroganoff

Vegetarian Lasagne

served with a selection of vegetables

or a green salad

--&--

Cold Desserts from the trolley

The Manager
Blue Widgets Ltd
St Albans

29th June 88

Dear Sir

I should be grateful if you could provide details of your full range of widgets. Some of them particularly need a side mounting flange which is drilled with three fixing holes.

In addition to details of the widgets, I would like to receive details of the prices. If the price is suitable, I expect to be placing a regular order on a regular basis.

Dave and Hilary Webster

invite

Steve and Mary

to their grand
housewarming party

at 24 Lodge Lane, Rainsford, Herts
on Saturday 15th December
from 7.30 pm

Mail your orders to:
THE AMSTRAD USER,
1/245 Springvale Road, Glen Waverley,
Victoria. 3150.
Phone your firm orders to:
(03) 233 9661
Bankcard, Mastercard or Visa accepted.

```

1290
870 REM *****
880 FOR spin=1 TO INT(3+RND(1)*6)
890 GOSUB 260:PRINT FNp$(5,54);MID$(rt$(1),2):NEXT spin:GOSUB 1290
900 PRINT FNp$(5,34);MID$(lt$(1),2);FNp$(5,44);MID$(md$(1),2);FNp$(5,54);MID$(rt$(1),2)
910 GOSUB 1290
920 RETURN
930 REM *****
940 REM INITIALIZATION
950 DIM lt$(20),md$(20),rt$(20),D$(6)
960 move=0:winnings=0
970 REM generate the random seed
980 PRINT cls$:GOSUB 1500:REM 'Draw a box
990 PRINT FNp$(10,28); "Press RETURN to Randomize Poker Machine"
1000 n=1
1010 WHILE INKEY$=""
1020 n=n+1:GOTO 1010
1030 WEND
1040 RANDOMIZE n
1050 PRINT cls$:GOSUB 1500:REM 'Draw a box
1060 PRINT FNp$(10,20); "HOW MUCH MONEY ARE YOU STARTING WITH (IN DOLLARS)";
1070 INPUT money
1080 IF money<1 THEN PRINT "YOU WON'T GET FAR WITH THAT!":GOTO 1060
1090 PRINT cls$:FOR j=1 TO 20:
1100 READ spin$:lt$(j)=spin$
1110 READ spin$:md$(j)=spin$
1120 READ spin$:rt$(j)=spin$
1130 GOSUB 1300:NEXT j
1140 FOR j=1 TO 6:READ spin$:b$(j)=spin$:GOSUB 1290:NEXT j
1150 PRINT cls$:RETURN
1160 REM *****
1170 DATA "1VVVVV","1VVVVV","1VVVVV","2====","3<<<<<","4;;;;;"
1180 DATA "5ZZZZZ","5ZZZZZ","3<<<<<","1VVVVV","2====","1VVVVV"
1190 DATA "4;;;;;","4;;;;;","2====","5ZZZZZ","1VVVVV","3<<<<<"
1200 DATA "6''''''","5ZZZZZ","4;;;;;","5ZZZZZ","4;;;;;","1VVVVV"
1210 DATA "3<<<<<","3<<<<<","6''''''","4;;;;;","1VVVVV","4;;;;;"
1220 DATA "5ZZZZZ","5ZZZZZ","3<<<<<","1VVVVV","3<<<<<","2===="
1230 DATA "4;;;;;","4;;;;;","6''''''","3<<<<<","1VVVVV","4;;;;;"
1240 DATA "5ZZZZZ","5ZZZZZ","3<<<<<","1VVVVV","4;;;;;","1VVVVV"
1250 DATA "2====","2====","4;;;;;","4;;;;;","1VVVVV","3<<<<<"
1260 DATA "5ZZZZZ","5ZZZZZ","6''''''","3<<<<<","4;;;;;","2===="
1270 DATA "^^","^",">","^","&","@"
1280 FOR t=1 TO 400:NEXT t:RETURN
1290 PRINT CHR$(7)
1300 RETURN
1310 REM 'START OF BOX RETURN
1320 '
1330 L1$=CHR$(134)+STRING$(w,CHR$(138))+CHR$(140)
1340 L2$=CHR$(133)+STRING$(w,"")+CHR$(133)
1350 L3$=CHR$(131)+STRING$(w,CHR$(138))
1360 PRINT FNp$(x,y);L1$
1370 FOR k=1 TO h
1380     r=x+k
1390     PRINT FNp$(r,y);L2$
1400 NEXT k
1410 PRINT FNp$(r+1,y);L3$
1420 RETURN
1430 x=7:y=25:w=40:h=9:GOSUB 1310:RETURN
1440 x=1:y=25:w=40:h=1:GOSUB 1310:RETURN
1450 x=27:y=25:w=40:h=1:GOSUB 1310:RETURN
1460 x=4:y=30:w=30:h=3:GOSUB 1310:RETURN
1470 x=4:y=33:w=5:h=1:GOSUB 1310
1480 x=4:y=43:w=5:h=1:GOSUB 1310
1490 x=4:y=53:w=5:h=1:GOSUB 1310:RETURN
1500 x=8:y=18:w=56:h=3:GOSUB 1310:RETURN
1510 PRINT FNp$(14,30);"BYE - SEE YOU ANOTHER TIME "
1520 PRINT FNp$(15,30);rev$;"PRESS F TO FINISH C TO CONTINUE";nor$
1530 prompt$=" ":match$="FfCc":GOSUB 1570:IF answer >2 THEN RUN
1540 CLOSE
1550 PRINT cls$:PRINT cuo$
1560 END
1570 answer$=INKEY$
1580 WHILE answer$=""
1590     answer$=INKEY$
1600 WEND
1610 answer=INSTR(match$,answer$):IF answer=0 THEN GOTO 1570
1620 RETURN

```

LOCOSCRIPT2 UTILITIES

This month we conclude our run down on utilities for LocoScript2 with LocoSpell and LocoMail. Next month we'll turn to PCW9512 matters

LocoSpell is LocoScript's fully integrated spelling checker. You can use LocoSpell like an electronic dictionary to find the correct spelling of difficult words. Even if you have no trouble with spelling, LocoSpell is invaluable for spotting your typing mistakes. LocoSpell can also tell you the number of words in all or part of your documents.

LocoSpell is available in English, US English, French, German, Italian and Spanish.

SIMPLE TO USE

LocoSpell could hardly be easier to use. When you are using LocoScript 2 to modify a document, you simply call up LocoSpell by pressing **f7** - the Spell function key. You are then shown a menu of options indicating how much of your document you want to check - from a single word right up to the whole document. Simply choose the amount you want and press the Enter key. Then it's up to LocoSpell.

When LocoSpell spots an error, it immediately alerts you by picking out the word and offering you a menu of possible courses of action. You can simply press Enter to accept LocoSpell's suggestion for the correct spelling - for simple mis-types this is usually correct. Other actions are to correct the mistake by editing the document, to ignore the error, or to tell LocoSpell to remember a new correct spelling. You can even use LocoSpell's "Consult Dictionary" feature to browse through the dictionary to find the right spelling.

LocoSpell comes with three dic-

tionaries - ranging from a massive 77,000 word dictionary primarily for use on a 512K PCW to a smaller 17,000 word dictionary for use on a PCW8256. The dictionaries are provided by the specialist dictionary publisher Longman, whose pedigree goes right back to Dr. Johnson's dictionary.

PERSONAL DICTIONARIES

The standard dictionaries contain all the common words in normal usage, plus a selection of proper nouns. If you are using LocoScript to write technical reports, or often use a number of proper names, you'll probably use some special words that are not in the dictionary. LocoSpell offers you two ways of dealing with these.

User Dictionaries give you a way of building up your own lists of words that you use frequently. Again, using LocoSpell to maintain these could hardly be easier. When LocoSpell spots a word it thinks is spelt incorrectly, one of the options it offers you is to add the word to your user dictionary. Just move the cursor to that option and press Enter.

Sometimes you might use very special words which you don't want to add to a user dictionary (no, not expletives but perhaps technical words). You can still prevent LocoSpell stopping at these when it checks the text. All you do is add a (SiC) code - meaning this word is OK really. You can do this when typing the word or by choosing another of the options LocoSpell presents when it finds a misspelling.

WORD COUNT

LocoSpell adds a word count feature to LocoScript. When you check a section of text, LocoSpell counts the number of words. It even includes in the count words that it doesn't check (such as single letter words). Hyphenated words (which are checked in their separate parts) are counted as single words.

LOCOMAIL

LocoMail adds powerful text processing capabilities to LocoScript. Of course, LocoMail is fully integrated with LocoScript, so the word processing commands you use are unchanged. But LocoMail gives you some extra commands which control the extra features. The completely revised LocoMail User Guide contains many examples of LocoMail in action.

STANDARD LETTERS AND MAILSHOTS

With LocoMail you can prepare standard letters (using all of LocoScript's style and layout features), and then address them to as many or as few people as you like. All you need to do is add some special codes to your letter where you want to slot in, say the name and address. You can choose to take the information straight from the keyboard, or from another document just containing the names and addresses - called the data file. Naturally, when LocoMail asks you to type in the details, you can make it prompt for exactly the right information, and even save the information for use later.

As LocoMail is operating "within" LocoScript 2, it relays your text after inserting the variable information. So your standard letters and mailshots always have that personally made look.

You don't have to restrict your data file to just the information needed for a particular mailing. You can choose either to select names and addresses as you go through your mailing list, or let LocoMail choose for you according to some pre-defined criteria - all customers

in Glen Waverley, for example. You can even select extra text for inclusion in just some of the letters you send.

Your data file can hold extra information that you don't always need. You can use the same mailing list several times over and build it up as you develop different uses.

To gain access to the new facilities add (+Mail) and (-Mail) codes to your documents. Between these two codes, you give LocoMail its commands.

Anyone can use LocoMail - the manual takes you step by step through the extra things you need to know. So, even if you don't want to do more than send a Christmas circular to your friends you'll find LocoMail useful. If your needs are more sophisticated, then you can follow through the examples until you know enough for your particular purpose.

SOPHISTICATED FEATURES

Mailshots are not all LocoMail is capable of - it has special commands for storing information and performing simple arithmetic too. So, for example, you could use LocoMail to create your company's invoices or your club's subscription reminders. Once again, you can do

this by taking the information either from a data file or direct from the keyboard. Unlike many computer languages, LocoMail uses decimal arithmetic much like you would when doing arithmetic. So, you can rest assured that your results will be accurate - in fact to 27 digits including 9 places of decimals. And that, is enough to invoice for the SDI (Star Wars) in Italian lire!

There are many powerful uses to which you can put LocoMail - essentially, the scope is limited only by your imagination. Existing users of LocoMail have used it for:

- Issue simple invoices.
- Produce a full credit control system.
- Cross reference legal documents.
- Produce columns of labels.
- Keep club membership records.
- Process telephone orders.
- Create other LocoMail applications!

As LocoMail accepts data files which are either LocoScript documents or CP/M's ASCII files, you can even use LocoMail with your database programs. It can take the output from your database, and turn this into a number of letters or reports - all perfectly laid out by

LocoScript. LocoMail gives you a lot of flexibility in how you organise your data, so it can generally adapt to any restrictions imposed by your other programs.

PRACTICAL EXAMPLES

The LocoMail User Guide and Examples have been completely revised in line with feedback Locomotive has received.

The tutorial chapters have been extended to cover more of LocoMail's features and include many simple examples for the beginner. The advanced chapters too, have been extended to cover LocoMail's features in much greater detail than before.

The new User Guide contains a number of complete worked examples of LocoMail in real life applications including invoicing and credit control, and running a club or society.

If you need to create your LocoMail application from scratch, then the "Building Blocks" will come in useful. Each Building Block is a short sequence of LocoMail commands which carries out some standard task. You can simply adapt a Building Block to any particular requirements you have, and slot it into your LocoMail application.

**Have you seen
the additions
to the PCW
Mail Order
products on
Page 31 ?**

- Batman**
- CP Compilation**
- Double T Patience**
- Head over Heels**
- Heathrow Air Traffic Control and Southern Belle simulations**
- Hitch Hickers Guide to the Galaxy**
- Leather Goddess of Phobos**
- Mindfighter**
- Stop Press DTP Package**
- AMX Mouse Mk III**
- Daatafax Gift Pack**
- Master Paint**
- Protect Filer**
- Protect Office**
- Seal 'n' Type Keyboard Protector**
- PCW Joystick interface**
- LocoFont Set 2**

THE A-Z OF ABC

If you are starting off in business and are looking for an All-In-One PC business package, then ABC may be the answer

Setting up in business is not always a cheap affair. To keep all your stock control and accounts on computer is equally expensive. With a single floppy PC a printer and the package ABC you have all the computer equipment needed to tackle this feat.

Using ABC is as simple as saying those letters, the package comes with six main modules, Filing, Word Processing, SpreadSheet, Bookkeeping, Stock Control and Miscellaneous functions. All work interactively with each other. Surprisingly enough, PPC512 single floppy owners do not have the problem of continuous disc swapping, the 720k 3.5" drives have enough capacity for the small business. However 2 drives would be required for the PC1512 and PC1640 if you have the standard 360k drives.

FILING

The Filing module (which is simply a database) is the card index type. It can handle a maximum of 50 fields per record with 30,000 as the maximum records per index. You can set up three indexes however you may only index a single field at any one time.

The Filing module works interactively with the bookkeeping module. This allows you to read information from the Filing and Bookkeeping modules while using the the database. An example would be as follows;

Assume a customer wishes to place an order of x amount of items. You would locate his name from the index, you then could check to see if account is up to date. Due to a feature of locking the bookkeeping details, you may only view and not change any of the bookkeeping data while in the filing module. Filing also allows for reports and labels to be produced.



WORD PROCESSING

The word processor handles all the simple operations you would expect, word wrap, search and replace text, definable margins and left, right or fully justified text. The drawback with this module is that there is a maximum of 20,000 characters you may type in. This is the equivalent to about 9 pages of text, quite adequate for writing little reminder notes however inadequate for lengthy reports.

If you wish to adjust your printing of the text, as in underlining, boldface, superscript or subscript text, you may do so by inserting single character dot

commands. This method initially sounds very crude, however the commands are used by each of the other five modules of ABC. This allows you to embed the codes in a cell in the spreadsheet or even highlight a name in the database by printing it in bold face.

As ABC in a business package, there are a few dot commands which will make life easier when typing your memos. For example, the command "&" when printed shows up the company name, "!" will print the date and "\$" will insert the time of printing.

A powerful mail merge facility is also built into this module, text and calculations taken from the spreadsheet, filer or a special notepad can be merged into a document. An example would be,

Dear XXXX,

We believe your account is XXX months overdue. The amount of \$XXX must be paid up in full in the next two weeks otherwise penalty rates will apply.

This base letter can be used over and over again with different information every time.

Another brilliant function of ABC is the 'Rubber Stamp'. It allows you to copy an area of the screen from any module in ABC, and then 'stamp' it into a word processing document. A handy feature in transferring data from one module to the other.

SPREADSHEET

When is a spreadsheet not a spreadsheet? When it comes with ABC! This module is explained in the manual as a CalcSheet. Like most spreadsheets, the ABC calcsheet allows the mathematical operations of multiplication, division, subtraction and division, percentages can also be calculated. There are no options to compare two or more cells, and there is no way of conducting logical rationalisations. The sheet size is 26 columns by 60 rows, this makes a total of 1,560 cells. The manual explains the small size as

being, "to keep it manageable for the novice and inexperienced user". With its minimum of features, the calcsheet would be no good unless you were to use it for simple cashflow planning.

BOOKKEEPING

The bookkeeping module with ABC is the guts of the package. It offers a double entry system for all small traders alike. With a capacity of 10,000 customers and suppliers and up to 900 analysis headings (nominal ledgers), ABC is perfect for the small to moderate trader.

The limit of 900 analysis headings may seem large. However if you have a large number of products spread over a wide range, you will reach the 900 limit quickly.

The analysis headings in ABC must be broken up into 9 headings; sales, other income, cost of sales, overheads, capital employed, long-term liabilities, fixed assets, current assets and current liabilities. ABC allows you to break each group into a maximum of 98 separate sub-headings. With the 900 maximum of headings, you are restricted to an average of 81 sub headings if you are to use all the nine headings.

Before buying ABC it would be a good idea to check if the 900 heading limit is adequate for your requirements. A general store employing two people, a product list spread 10 ranges and two departmental cost centres used 150 headings. This may be ABC's major let down.

At the end of the week or month, ABC allows you to print out a full list in double entry form of all the entries for that period. ABC takes care of adding up all the columns and where needed separating the tax values. At the end of the year, you can then take your monthly or weekly print outs to your accountant so he can work out your end of year accounts.

As well as keeping track of all your business transactions, ABC does much more. Located under the bookkeeping module are six main options. The business summary allows you to

print profit/loss balance sheet and tax reports and also an audit trail. Invoice/Sales covers all the requirements to print invoices, working with the database to fill in details about your clients, prices and works out discounts automatically. The purchase option will take care of your purchases and payment to your suppliers, remittance advice notices can also be generated from data previously entered.

As expected, all printed reports,



invoices and statements use predefined formats, so you will have no trouble in designing a format to suit your need.

The Cash/Bank/Transfer module is the equivalent of the journal and takes care of odds and ends such as banking, petty cash, till sales and transfers between ledgers. The stock option is not really part of the bookkeeping module, however with the need to check stock before invoicing a product, it must be included. The last option is the General option. This tidies up records and accounts at a month and year end. It also allows you to add or change the analysis headings.

The bookkeeping module of ABC is designed to take out the trauma of bookkeeping in a small business. With a click of a few buttons you can print out nasty letters to customers who are late in paying their bills.

STOCK CONTROL

This module of ABC allows you to monitor and adjust stock levels. This is hardly necessary as the bookkeeping functions take care of all the stock adjustments whenever invoices and receipts are entered into the system. This module also allows you to adjust the cost and resale

price of your products. Up to three different resale prices can be set up for each item and these prices are used whilst invoicing a product. A stock list can be printed using any of the three resale categories.

ABC also tells you when stock needs to be updated and by how much. ABC can also print out reports in many different fashions.

The one complaint with the stock control is the way in which it handles re-ordering of stock, for example; if you have five items in stock and the minimum stock level is set to seven, ABC will tell you you need to order another two items. In other words, the minimum stock level is also taken as the maximum level. In practice, this means you could be ordering the same item every day as you sell it.

HELP

For twin drive or hard drive users, ABC has a help screen for option. Several levels of help are included in the package and additional screens are available from the User Club.

CONCLUSION

The ABC package is designed to help the first time user in getting through the hard slog in setting up accounts onto a computer. What features ABC offers, it does it with excellence.

For a small fee, you can join the ABC User Club. Through the club you are kept up to date when new updates come out and are also offered a discount on stationery and discs. Members can also take advantage of the seven days a week on-line help from the distributors of the package.

From my own experience I think ABC is an excellent package for the dollars spent in obtaining a copy. On the next page is a chart which should help you decide if ABC is the right package for you.

• For any one interested in purchasing a copy or for more information, the importers of ABC, Dragon Technology Pty. Ltd. can be contacted on (03) 266 5839.

Comparison of Accounts packages under \$500.00

Product Name	Sage Bookkeeper	Snip	A-B-C	Sage Accountant	Sybiz Bookworker	Desktop Accountant
Price	\$299.00	\$499.00	\$499.99	\$449.00	Not Known	\$450.00
Number of program discs	1	1	1	1	2	6
Capacity (subject to disc size)						
Sales Accounts	1,000	10,000+	10,000	5,000	total	10,000+
Purchase Accounts	1,000	10,000+	10,000	5,000	of	10,000+
Nominal Accounts	999	999	900	999	4,000	????
Standard Features						
Daybooks	Yes	Yes	Yes	Yes	Yes	Ye
Profit&Loss report	Yes	Yes	Yes	Yes	Yes	Yes
Balance Sheet report	No	Yes	Yes	Yes	Yes	Yes
TAX Return	??	No	Yes	??	Yes	Yes
Full Audit Trail	Yes	Yes	Yes	Yes	Yes	??
Statements	No	Yes	Yes	Yes	Yes	Yes
Message facility	No	No	Yes	??	Yes	Yes
Credit control letters	No	No	Yes	Yes	No	No
Remittance Advice Notes	No	Yes	Yes	??	No	Yes
Password protection	Yes	Yes	Yes	Yes	Yes	Yes
Journal entries/ Cash Posting	Yes	Yes	Yes	Yes	Yes	Yes
Bank reconciliation rep.	Yes	Yes	Yes	Yes	??	??
Additional features						
Open Item Accounting	Yes	Yes	Yes	Yes	No	Yes
Brought Fwd Acc.	Yes	Yes	Yes	Yes	Yes	Yes
Cashbook with TAX	??	No	Yes	??	No	Yes
Automatic Integration	Yes	No	Yes	Yes	Yes	No
Credit Limits	No	Yes	Yes	Yes	Yes	Yes
Mail Shots	No	No	Yes	Yes	No	No
Reports Generator	No	Yes	Yes	Yes	No	No
Invoicing and Stock						
Stock Control	No	Yes	Yes	No	Yes	Yes
Price List printing	No	Yes	Yes	No	No	Yes
Invoice printing	No	Yes	Yes	No	Yes	Yes
Max. items on invoice		100+	99		12	9
Other functions built-in						
Wordprocessing (Typing)	No	No	Yes	No	No	No
Database (Filing)	No	No	Yes	No	No	No
Spreadsheet (C'culations)	No	No	Yes	No	No	No
Desktop utilities (Phonebook, Diary, Alarm Clock,Notepad)	No	No	Yes	No	No	No
Other Comments						
Suitable for complete beginner	Yes	No	Yes	Yes	Yes	??
Suitable for experienced bookkeeper/ accountant	Yes	Yes	Yes	Yes	No	Yes

This comparison was compiled from magazine reviews, product literature and manuals. No liability is accepted for the accuracy of these details; which should be verified by you if they are important to your business.

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PORTABLE POWER -TAKEAWAY PRICE

One of the hallmarks of Amstrad is their ability to package a computer system with the features of much more expensive brands. The new PPC range is no exception.

Not many people have been lucky enough to sight the new PPC. No sooner had the first shipment been delivered and sent to dealers they were sold. This at least says something for the machine itself and the aggressive marketing campaign that Amstrad have launched now they are permanently resident in Australia. Hopefully, by the time you read this review more would have arrived to our shores and on dealer's shelves.

WHAT YOU GET

The PPC's come in two formats - the PPC512 with 512k RAM and the PPC640 with 640k RAM and a built-in modem for communications. If you don't want the modem, you have to go for the PPC512 but that does not have any RAM upgrade sockets (like the PC1512) for future expansion, so you need to choose carefully the model to suit your requirements. Both models come with either one or two 3.5" floppy disc drives holding 720k, and are supplied with MS-DOS 3.3 (not GEM or DOS Plus).

Bundled with both is PPC Organiser which is a desktop utility containing a word processor, diary, address book, calculator and notebook. The PPC640 has an additional program MIRROR II (from SoftKlone) which is the software necessary to communicate with Viatel, bulletin boards and so on.

When closed the unit is about 450 x 230 x 100mm (that's 18 x 9 x 4" for us older folk) and weighs around

5.5kgs (nearly 12 lbs) without the batteries and mains adaptor. It is supplied with a carrying case which should help to keep it safe from minor rain falls when being transported between car and office, although the disc drives could be vulnerable as they are at the top of the case and only covered with a small flap under the handle. The case, which also comes with a shoulder strap, is only meant for carrying the machine and not for providing protection against heavy handling.

When opened, first the full size keyboard is revealed under which the LCD display screen lies flat ready for lifting to the required angle. At the back, under a hinged panel are a parallel printer port (Centronics), an RS232 serial port and a 9-pin 'D' connector for linking an IBM PC-compatible monitor. This means that you can link a PC1614 monitor but not a PC1512 as they have different DIN plugs. A serial mouse could be used through the RS232 socket. The PPC640 has Telecom-style socket for a telephone - but more of this later.

First impressions often count the most. I found the design of the PPC reasonably pleasing on the eye but probably less robust than the 'glossies' made it look - but when I thought further, it seems to be constructed of the same plastic that is used with the PC1512 and 1640 which have stood the test of time, so perhaps I am worrying unduly about the 'plastic' feel.

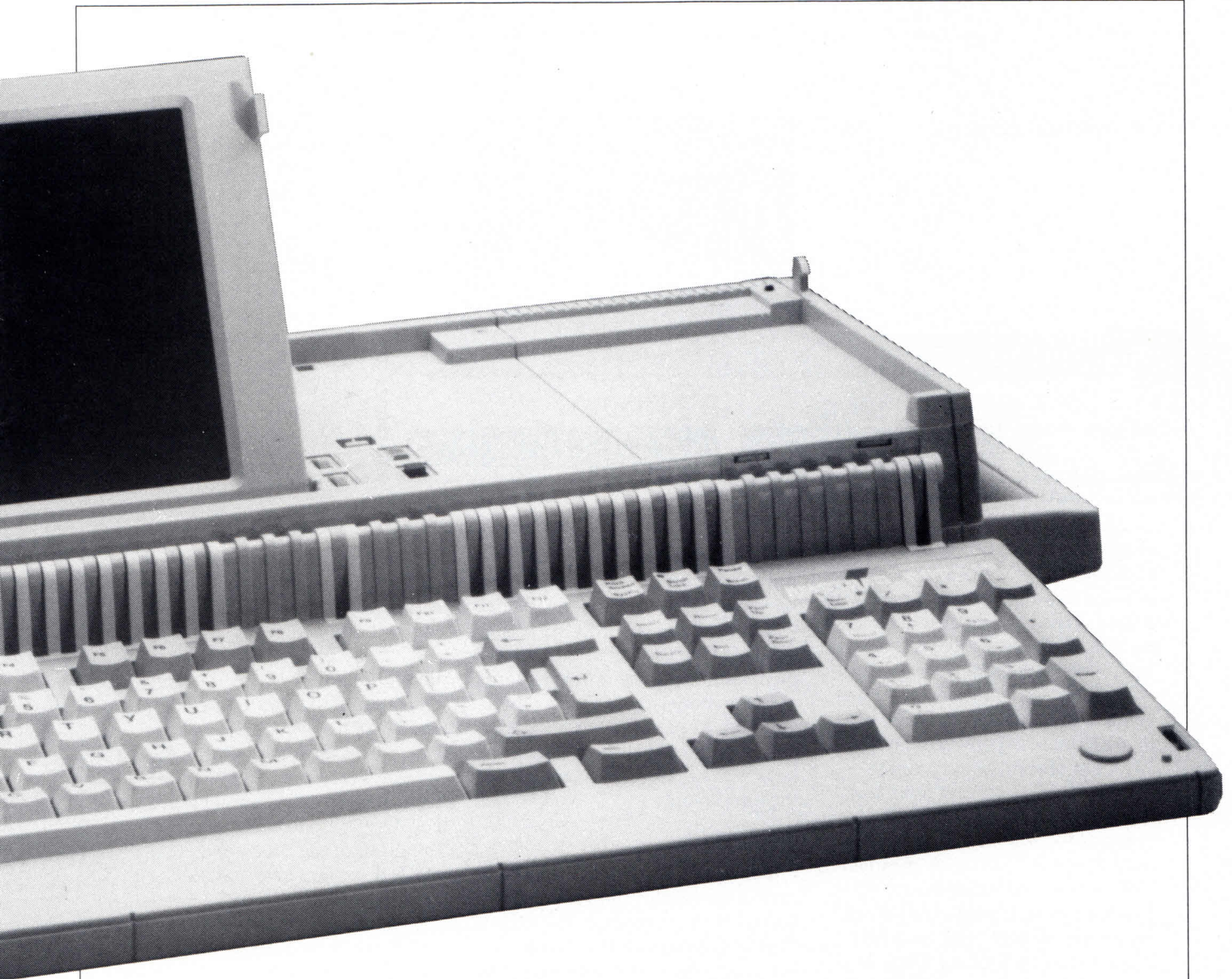
Both the PPC512 and PPC640



have the same processor as the PC1512 and 1640, that is an 8086-2 processor running at 8Mhz, and a dual-mode display adaptor - MDA (Monochrome Display Adaptor) and CGA (Colour Graphics Adaptor). You won't find 1512 hi-res, EGA or Hercules modes. Nor will you find any internal expansion card slots, but it is believed that Amstrad will produce a 20mb hard disc unit with three slots and the PPC has the relevant connector socket for this.

POWER TO THE PPC

Power can come from a number of



sources but obviously enough boils down to two types, either internal or external. Internal power can be supplied by 10 'C' batteries and is by far the most expensive method of using your PPC. At about \$1.50 per battery (the expensive alkaline type), it will cost you \$11.50 for 6 to 8 hours running before the batteries need replacing. It may be even sooner if you do a lot of disc accessing. In practice, I could not get the batteries to last longer than about three hours before the "batteries low" warning beeps. Amstrad do not recommend the use

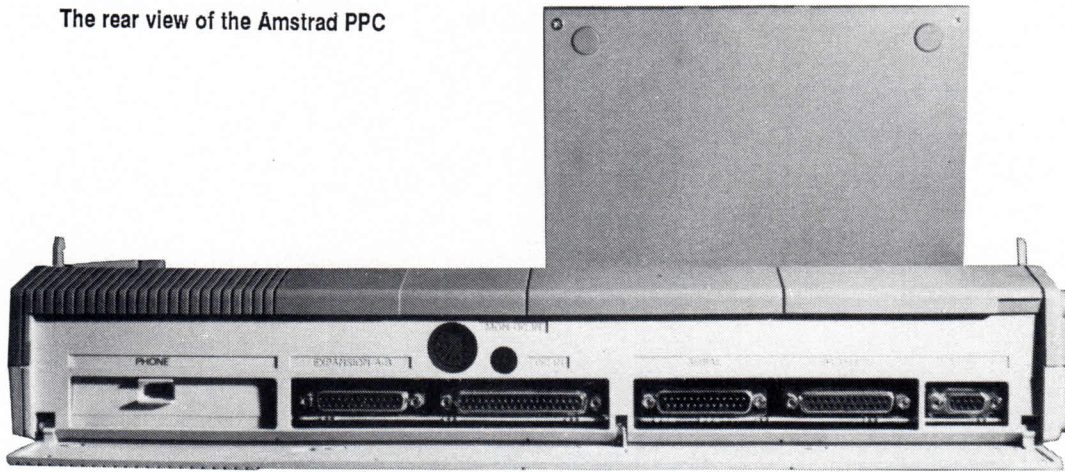
of rechargeable batteries (the nickel cadmium type) because even when fully charged they do not supply enough power. External power can be provided through the supplied mains adaptor (220 - 240 volts). There is also a lead for using a cigarette lighter socket in a car, although again, Amstrad tell you not to use the computer when the car engine is running. On the other hand, it is possible to connect the power lead to a PC1512 or 1640 monitor. As previously mentioned, linking to a PC1512 monitor won't give you a display, but the PC1640

will - in any case, if the power adaptor blows up and you are lucky enough to own a PC as well, it forms a useful back-up power supply. When the hard disc arrives it too will be able to power the PPC.

DISCS AND KEYBOARD

With the PPC range, Amstrad has moved away from the 5.25" format floppy to a 3.5" format, the same as the IBM PS/2 series and the new Amstrad PC2000 series. The 3.25" discs are similar in construction to the 3" discs used by the CPC and PCW range of Amstrad computers.

The rear view of the Amstrad PPC



They are without doubt more robust than the 5.25" variety as they are encased in a rigid plastic sleeve with a shutter over the read/write area of the disc. This means that they store well, and can be sent through the post without any problems of them being bent or squashed. Naturally they are more expensive than the 5.25", but are still about half the price of the 3" discs and hold four times as much information - 720k as opposed to 180k - or in the case of the PC1512 or 1640 twice as much - 720k as opposed to 360k.

Already, many software houses are providing both 5.25" and 3.5" discs in the one product box, but you would be wise to check that it is available in the format you require before buying (and that it suits MDA or CGA standards).

The keyboard also conforms to the IBM PS/2 standard (enhanced AT style) with twelve function keys, separate cursor control keys and the 'ESC' and 'CTRL' keys moved away

to a safer position. In all a 102 key full spaced keyboard. The feel of the keyboard is the same as the PC1512 and 1640 which is hardly surprising as the PPC keyboard uses the same membrane style technology. There is nothing special about the keyboard although existing Amstrad PC users are bound to press a few wrong keys while they get accustomed to the new layout.

SCREEN TEST

It took me quite a while to find the correct position of the screen so that I could read it properly. The LCD (Liquid Crystal Display) Screen is based upon the same technology as that used in a digital watch and the lower the surrounding lighting conditions the less legible the screen becomes. In addition, unless the screen is positioned at 90° to the line of sight the display becomes less clear.

I found the best result by placing a desk light near to the screen and shining as directly as possible on to it. Naturally, the screen can be tilted to varying degrees and in the main will accommodate most good lighting conditions. But under a

standard globe at home or normal office lighting you may find a problem. It begs the question why didn't Amstrad include a backlight?

The screen itself shows a full 80 x 25 character text display and 600 x 200 pixel graphics. Colours are represented by grey shades. Amstrad has used a 'TV' aspect ratio in the screen which, in simple terms, means that there is little or no distortion so a circle looks like a circle.

The cursor doesn't look like a cursor though - it's faint and difficult to see, needlessly frustrating at times.

UP AND RUNNING

Operation is similar to the PC1512 and 1640. Just switch on the machine, wait for it to get through its standard messages then load MS-DOS. It doesn't have any permanent RAM so you have to save everything as normal before switching off. It does, however, have a clock/calendar chip which will operate if the main batteries are fitted.

Disc access time and transfer rate are a little quicker than the desktop PCs as is the response time and screen display (though you may be fooled into thinking that it is slower if you watch the 'lagging' on the screen). When I hooked up a 1640 monitor there was no question of it being slow, so performance is not a problem. Using a 1640 ECD will still only give an 8 x 8 pixel matrix but is nice and clear. Using a 1640 mono monitor will give high quality text but no graphics (because it can only use MDA mode). Although the PPC has both MDA and CGA adaptors you can only use one adaptor at a time.

Software compatibility seems OK with normal business applications. Games, on the other hand, are a

THE BOTTOM LINE

Here is what you should expect to pay for the PPCs:

Model	RAM	Disks	Modem	Price
PPC512S	512	1	N	\$1099
PPC512D	512	2	N	\$1499
PPC640S	640	1	Y	\$1599
PPC640D	640	2	Y	\$1999

different kettle of fish, especially those with lots of graphics where 'ghosting' appears as images move across the LCD screen. But we should all remember that the PPC has not been designed as a games machine - shouldn't we!

COMMUNICATIONS

The PPC640 models come with a built-in modem which operates at four speeds; 300/300, 1200/1200, 1200/75 and 2400/2400 and all facilities using common file transfers and terminal emulations etc. are supported by a powerful bundled package called Mirror II. It allows you to set up pre-programmed scripts which organise file transfers in the background while you work on something else. A Mirror II script file is a program which can contain any of the commands normally typed in on the screen. In addition it also has functions similar to a full programming language like IF, WHEN, WAIT, SKIP and so on. Other script files can also be called from within an existing one.

You'll find the software and modem performs well at the three slower speeds but at 2400 bits per second (bps) without any hardware error-checking protocol, the standard telephone lines have a bit of trouble. The idea of putting a modem into a portable computer is not new yet few manufacturers have done anything about it until Amstrad took the plunge.

ORGANISER

The other bundled package which is supplied with both the PPC512 and PPC640 is the PPC Organiser which consists of a diary, notepad with calculator, address book and small word processor. It can either be used as a direct application or as a resident application (or desktop utility) where it can be invoked by the press of a key while in another application.

The diary provides a calendar with one-line notes for each day and an alarm for an appointed time. The address book is a fixed format database containing name, address,

telephone numbers and other relevant information which can, if required be merged into templates within the wordprocessor. It also includes an index box.

The notepad allows for 40 characters by 12 lines of free format notes, indexed and dated for later retrieval. The calculator provides standard functions found in a pocket calculator and hexadecimal and binary conversions along with an ASCII table. The word processor is basic but includes cut and paste, bold and underline, search and replace, and is adequate for putting together letters or short documents.

The clever part about PPC Organiser is that there is a certain amount of integration between the functions. For example, if you are in the diary you can call up an address from the address file and cut and paste data between the two. The same works while using the word processor - you can search for a name or other information, cut it and then paste it into the document you are working on. The only problem is that it is rather a large program, some 220k in all, so it doesn't leave too much room for other programs if you want to use it in resident mode. As it is disc based, it is not restricted to the amount of RAM available when you start to build up cards or documents but will consume the battery power quite quickly because of the disc accessing.

SUMMARY

Although a 'laptop' or 'portable' I

cannot see the PPC being used very much as a battery-operated computer - unless you have an expense account for batteries (a 'charge' account so to speak). And in spite of my criticism of the LCD screen, the PPC will perform an excellent service in moving from desktop to desktop very conveniently. When you think about it, all you need is a PPC, an additional monitor and the forthcoming hard disc to give you a full desktop computer and a 'weekend' computer for the price of a standard hard disk desktop. Once again, in sheer value terms, Amstrad has brought the world of computing power closer to the man or woman on the street.



▲ The PPC comes with a carry bag and strap which can easily be slung over your shoulder

Our last jaunt into the world of Basic2, digging a little deeper but surfacing with hints on trapping errors. Then we expand the power of our simple Mandelbrot program from last month.

The areas covered by PC Help in this mini tutorial on aspects of Basic2 have been reasonably basic up to now, although we have no doubt that newcomers to Amstrad PCs may argue otherwise. However it is now time to look at more obscure functions which are not included with the language and in that category falls the hyperbolic sine.

To define it you'll need the following:

```
DEF FN name[(formal parameters)]=
expression
```

which has to be called with a statement like

```
variable=FN name[(actual parameter)]
```

Don't forget that the square brackets contain optional items. What does all this mean? Examples often help to see the 'wood' so take a look at the following short program:

```
◆ value=20
◆ PRINT FN calc(value1,value2)
◆ DEF FN calc(value1,value2)=value1-value2
```

```
◆ PRINT FN calc(5,4)
◆ PRINT value1
```

Looking at the third line, 'calc' is the defined function with formal parameters of value1 and value2 resulting in the difference between value1 and value2.

RULES

One of the important rules of Basic2 is to make sure that the function definition always comes before an attempt to call it. This can be illustrated by running the above five line program - it will stop on the second line because 'calc' has not yet been defined. By removing the second line and running again a result of 1 and 20 will appear in the Results window. You will also discover a second rule which is, simply put, that all parameters of a function are applicable to the function itself and cannot be altered by anything outside that function. This means that it is possible, though unwise, to have a program variable with the same name as the formal parameter of a function.

The third thing to remember is that the actual parameters (see fourth line) supplied to a function, regardless of whether they are variable names or results from other functions, must be of the same type as the formal parameters. In our short program for example, it would be useless specifying string parameters when the function is expecting numerics.

ERRORS

Not many honest people can put their hand on their heart and say that they have written a meaningful program which ran exactly as planned and without errors at the first attempt. Most of us know that a program can be error free (ie. no syntax errors, mismatches or the like) yet still produce the wrong answers. For example, if you have wanted a program to increment a page number by 1 and typed 2 instead, nothing (except your eyes) will spot the mistake.

When faced with a particularly

knotty problem, you can spray STOP instructions around your listing followed by PRINT instructions to display the contents of fields or variables. The instruction CONT will make the program continue where it left off. Of course, these instructions have to be removed from your final work, but they are a useful tool in tracking down spurious errors and they won't affect the logic of the program. Their use also gives you an opportunity to change variable values as you search for the problem. Using ? instead of PRINT is sometimes preferable as the result does not interfere with the program's screens.

The functions ERR and ERROR\$ hold respectively an error code and message. Type this in the dialogue box:

```
PRIN "Fred" <enter>
```

Naturally enough, the entry will be followed by a 'Syntax error' message. Now type:

```
?err
```

The result is a '4' and is the error code which identifies the error message to display. If you want to see a complete list of the error messages run the following program:

```
◆ FOR m=1 TO 100
◆ PRINT ERROR$(m)
◆ NEXT m
```

An error code of 100 (the last one in the list) means that an operating system error has occurred. Using ?OSERR will display the error number. A full list of operating error messages appears on Page 517 of the User Instruction manual.

ERROR TRAPPING

There are bound to be more silly errors than we could list, but as Basic2 handles most of them with meaningful messages and many are obvious, it makes more sense to

look at unforeseen errors which often take a while to sort out. Take, for example, a situation where a number is expected to be input but the operator has typed a letter. The program would crash unless some checking sequence was included. The following program shows how to allow for this kind of operator error using the ON ERROR command.

```
◆ ON ERROR GOTO dill
◆ LABEL enter_num
◆ INPUT "Number?";a$
◆ a=VAL(a$)
◆ PRINT a
◆ STOP

◆ LABEL dill
◆ PRINT "";a$;" is not a number - try again"
◆ RESUME enter_num
```

In this example, if the VAL function cannot convert the a\$ string into a number to assign to a numeric variable, the program switches to the ON ERROR command to get further instructions - in this case move to the label 'dill' and execute the instructions there. To switch off the error trapping routine, the following is required:

```
ON ERROR GOTO 0
```

Another important rule to remember is that a RESUME command must always end an error trapping routine. It can also come in three forms:

RESUME - returns execution to the start of the statement that produced the error.

RESUME [location] - returns execution to the specified location (as in the above example program).

RESUME NEXT - returns execution to the start of the statement after that which produced the error.

You can also make a program take a particular course of action by testing the error code appearing in the ERR function. Another method of

HOW TO TYPE IN A LISTING

For first time users to Basic2, this little guide should help you in typing out a Basic2 listing. From now on, you will notice that we will print diamonds before most of the lines in the listing. The reason for this is to keep the compatibility with the way Basic2 shows your program.

When typing a program into Basic2, you will notice it will put a diamond before each line. If your line wraps around at the end of the window, a diamond will not appear on the second line. We have done the same thing. Where a line has wrapped around in the column we have not printed a diamond. Take the two lines;

```
PRINT "Press any key to continue"
-e..."
```

If you were to type this line in, you would not press the return key until you have typed the section 'e...'. If the edit window was at full screen size, the two lines would appear as one. Type it in and see. So not to confuse things, whilst printing a listing, we will exclude the hyphen which Basic2 places if the line wraps around.

handling errors concerns the use of command return codes. Briefly, the following example statement can test the success or otherwise of a command:

```
err = LET a = VAL(a$)
```

VAL(a\$) is the normal command, but the variable 'err' would have assigned to it a code indicating its success or not. A zero in 'err' would mean that the command was successful and anything else could be tested and handled in your program. Note, however, that a command cannot be used as a true function, it can only be assigned to a numeric variable.

SPEEDING UP MANDELBROT

Last month's type-in was a short Mandelbrot listing - well, short to type in but it took rather longer to draw the results to the screen. This month we take things a stage further by modifying the program to allow the graphic data to be saved to disc. People with hard discs need not worry too much about space but those less fortunate should note that the file will consume around 100k. If you missed the listing last month it is repeated below with the necessary amendments printed in bold

characters. You may find referring to September's PC Help useful if you don't understand the use of OPEN and PRINT.

```
◆ REM Short PC Mandelbrot (saving to disc)
◆ CLEAR RESET
◆ USER SPACE 378
◆ INPUT "Real Part ";rp
◆ INPUT "Imaginary Part ";ip
◆ INPUT "Size of Square ";side
◆ INPUT "Enter filename to store data ";file_name$
◆ PRINT "PRESS ANY KEY TO CONTINUE..."
◆ WHILE INKEY=-1:WEND
◆ OPEN #5 OUTPUT file_name$
◆ PRINT #5,rp;ip;side;
◆ gap=side/189
◆ CLS
◆ FOR m=1 TO 189
◆ FOR n=1 TO 189
◆ rc=n*gap+rp;ic=m*gap+ip
◆ rz=0:iz=0:count=0
◆ REPEAT
◆ tempz=rz*rz-iz*iz+rc
◆ iz=2*rz*iz+ic:rz=tempz
◆ count=count+1
◆ siz=rz*rz+iz*iz
◆ UNTIL siz>4 OR count>16
◆ BOX 2*n;2*m,2,2 COLOUR count
MOD 16 FILL ONLY
```

```
◆ PRINT #5, count;
◆ NEXT n
◆ NEXT m
◆ CLOSE #5
```

If you have two drives, and want to create a new data file on drive B, you could delete the 'Enter file-name' question line and change the first OPEN instruction to OPEN #5 NEW OUTPUT "b:\nnnnn.fff (where nnnnn.fff is the chosen filename).

The advantage of having the data on disc is that you can tinker with it, analyse it or whatever to your heart's content. Any innovative thoughts from readers, perhaps moves into 3 dimensional surfaces, would be of interest to others and

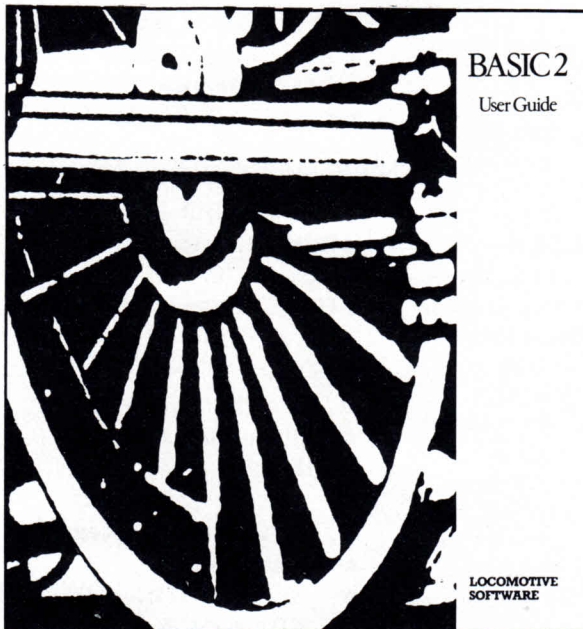
will be considered for publication. Having successfully captured the graphic data to disc a separate program is needed to allow you to regenerate the picture. Below is a pretty simple program to do just that.

```
◆ CLEAR RESET
◆ USER SPACE 378
◆ INPUT "Name of file for display ";file_name$
◆ OPEN #5 INPUT file_name$
◆ CLS
◆ FOR a=1 TO 3: INPUT #5,dummy:NEXT a
◆ FOR m=1 TO 189
```

```
◆ FOR n=1 TO 189
◆ INPUT #5, count
◆ BOX 2*n;2*m,2,2 COLOUR count
  MOD 16 FILL ONLY
◆ NEXT n
◆ NEXT m
```

You'll find that the picture will be produced a little quicker than before because the calculations have already been performed. Next month, we hope to turn our attentions to a pseudo-Logo program written in Basic2 which, apart from drawing pretty pictures, should provide some mathematical education to children.

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ADVENTURER'S ATTIC

Philip Riley lends a helping hand to anyone who has been unsuccessful in capturing the submarine, Red October. Plus we have our usual questions and answers and an even larger adventurer's contact list.

DIVE! DIVE! DIVE!, fasten all hatches! Load torpedo tube number 1, weigh the anchor, 15 kilos sir, that's sounds about right. Welcome comrades to another publication of the Australian capitalistic Amstrad magazine. This is comrade Riley reporting to you from the Kremlin. It has come to the attention of the Kremlin that many of you comrades have been trying to steal the latest Soviet submarine, Red October.

Many comrades are also failing to defect to America with above mentioned submarine. This is due to the might of the Soviet Northern red banner fleet and a little help from some Soviet trawlers (the Kremlin wishes to point out at this stage that these trawlers are not spyships and merely happened to be in the area trawling or whatever it is that trawlers do).

Many comrades have telephoned a certain Australian capitalistic Amstrad magazine for help in operating Red October. The KGB has therefore suggested that I, comrade Riley help you in operating your submarine. So here goes.

When the game starts you are not in open sea, you are in the Reyjanes ridge, this is rather shallow water and to be safe you should not dive too deep or you will hit the bottom and your defection will end rather abruptly. I have found that 40 metres always seems to work out at a nice depth.

First thing to do is change from propeller drive to caterpillar drive and increase speed to 15 knots (this is the maximum speed when using caterpillar drive). Now change your heading to 240 degrees, this should set you on a course bearing SW. Looking at the main contour map you will see that you are near to the top right of the screen, on the light blue area. The white areas are shallow water and should be avoided, the dark blue areas are the open sea and should be your target for the time being. Once into the dark blue areas you are in deep water and can start diving to greater depths.

Now that you are on the right speed and heading you can start looking for mines and other submarines. Press the icon marked MAPS and the main screen will change to a dark blue colour, you are the ring in the middle, the other markings on the screen are either mines or other subs (marked in orange). You may also see some light blue markings on the screen. If you can, and they are very near to the ring in the middle of the screen - PANIC!!!. These are torpedoes and will need to be destroyed. To do this switch on your weapons systems and move the marker to the icon marked FLACK. Flack only works for a limited time and so it is best to wait for the torpedo to be right on top of you before releasing your flack. When you have released the flack the icon will change colour, if it reverts back to its original colour and the torpedo is still speeding towards you, release more flack. You may have to release flack several times to destroy a torpedo.

Also remember that mines are not funny round things with bristles and look like bloated hedgehogs. Mines have now gone HI-TECH. They have listening devices on board, when they pick up the sound of a sub they fire a torpedo.

If you have no mines or subs on the screen or if they are all behind you (if you are heading SW they would have to be towards the top right of the screen to be behind you)

change to propeller drive and increase speed to 40 knots (maximum speed) and make a run for it. You will find that you will outrun most torpedoes at this speed. If another mine or sub appears in front of you change back to caterpillar drive (your speed will decrease automatically).

By using this method you should be able to get out to deep water without too much trouble. The Kremlin would like to point out that this information is supplied in the strictest of confidence and must not be used as a means of defecting to America.

Yes I know Hunt for Red October is not an adventure game, it is a strategy game but many people class strategies as a type of adventure game and anyway who am I to refuse a request from the Kremlin (it was either this or salt mines). So we will now class strategy games as types of adventure games.

And so onto some points of interest. James Green would like to point out that the tape version of the Time and Magik Trilogy works on 64K and does not need the RAM expansion. James would also like to know if we pay for infinite life cheats for adventures. You will be paid for a full article or a map that is published in the attic but any small items of interest (or cheats) are on a voluntary basis. Thanks to James as well for pointing out a small error in my spelling in issue

44 (I am not going to tell you what it is as I don't want everyone to know about it), and yes James the map for Red Moon will be published and we would like to see more if anyone wishes to send them in.

Nick Blair would like to publicly thank James Green for his help in the solution of Red Moon. James would also like to publicly apologise to anyone who has written to him and not received an answer, it would appear that he has lost some of your letters.

Bobby Lockett has asked us if we can publish a map from another magazine that is no longer in print. Very sorry Bobby but this would be against the law and would put TAU in hot water. All maps and hint sheets must be your own work and not taken from another mag, even if it has been out of print for some time. Also Bobby gave us a list of games for the contact list that he has not finished yet. We haven't put them on the list as it would be in the best interests of all if we stick to completed games. Please let us know when you have completed them and we will add them on.

Well that's it for now, but before we go onto the questions and answers here is a finish from Bobby Lockett with a little help from Porky Pig, Th-thats all folks.

QUESTIONS

The first question this month is from Scott Barker and concerns Bastow Manor. He would like to know if anyone knows the final code for the treasure chest.

Bobby Lockett has sent in an enormous amount of questions and must hold the record for sending the most questions in on one letter. First we have some concerning Hitch-hikers Guide to the Galaxy. What do you do after you have all the fluff? How do you get the intelligence thingo? Is the vacuum awl a red herring? How do you

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open the hatch on Magrathea (ask Marvin to help you)? If Marvin is the only one who can open the hatch what tools do you give him. Do Ford etc. ever come out of the sauna and help? How do you get into Marvin's room once you have convinced the screen door? If there are any mazes in the game how do you get through them (it would appear that Bobby is not too good at mapping mazes).

Bobby also has two questions for Infidel. What do you do with the book? What does the queen's chamber door say and how do you open it?

James Green has three questions for Smugglers Cove. How do you get past the mermaid with the trident? How do you get past the pirate that is upstairs and where is the ring?

Nick Blair is stuck in Rigels Revenge, he knows that there is a deserted camp to the North and no mans land to the East, but he cannot get to them.

Now it is back to Bobby and Spellbreaker this time. How do you get past the monster in the cave? How do you get the cube where the hermit is? How do you get past the guard? Is there an extremely hard puzzle that Bobby should know about and how do you get the cube in the nest and how do you get out?

Bobby would also like to know the answers to these questions concerning Zork II. What do you do once the demon is out? He has

given him all of the treasures except the painting. How do you get the painting out of the bank? What do you do with the light curtain? What do you do with the box with the slot and he cannot remember what it was that he put into the serpent's tank that caused him to suffocate when he smashed the tank. Can anyone out there help to jog his memory on this one?

Now some questions for Suspended from, yes you guessed it, Bobby. How do you get the humans to take the cutting tool? He has put the bag on the stable holder but they just look at it. How do you know what to adjust the monitors to. For some reason the robots malfunction and go KA-PUT when around the cavernous room and the FC's, but sometimes they don't. Whiz gets welcoming signals from Beta FC when the reset machine has been repaired and opened. Could someone shed some light as to why this happens and how to prevent it. Can the seventh robot be repaired or is it only good for getting the cable. What do you do with the flattened cable under the shelf.

The final question, also from Bobby concerns Deadline. He has listened in on the conversation twice, got the gardener to show him the hole, questioned the people about the members and friends in the house, read the newspaper, examined the scene of the crime and discovered various bottles and had numerous things dusted. He has

even determined how the killer got in, what he would like to know is **WHAT NEXT.**

ANSWERS

Scott has sent us some of the commands for Bastow Manor. They are as follows: I=inventory, L=clues, G=exits, N, S, E, W, break, climb, cut, drop, eat, get, go, help, light, look, move, open, press, suicide, read, ring, save, unlock, wear, remove.

Steven Orr has some help for

Forest at Worlds End. To kill any unwanted creatures just type "SHOOT <MONSTER>", so to kill the elf, type "SHOOT ELF", also to get into the farm house type "ENTER FARM".

James has help for anyone having trouble with the thermoplas suit in Necris Dome, just type "SPRAY AEROSOL".

For anyone stuck at the beginning of Swords and Sorcery Steven has some hints for you (he claims that he was waiting for a bus when writing them so don't blame him if they are not quite right). To get a good start go to the bottom room to

the East, kill the monster and get the staff out of the sack. Now whenever you "HOLD STAFF", your magic increases by 16 (2 spells). Another good object to get is the armour somewhere to the South, which you then wear. Also the ring is good as it improves your agility, however, this is in the second quadrant along with the book which drains your magic everytime that you do anything with it. Steven would also like to point out that this game has many bugs and always seems to crash when he is doing well.

Well that is it for another month, I will see you next time around.

ADVENTURER'S CONTACT LIST

(Please don't abuse the help being offered)

Jason Pavy 105 Lyall St. Kalgoorlie W.A. 6430	The Hobbit, Forest at Worlds End	24 Rosemary Row Rathmines N.S.W. 2283	Mind Shadow, Sorcerer, The Neverending Story, Enchanter, Aftershock, Red Moon Imagination, Message from Andromeda, Mural.
Rhondda Cook MS 231, Laidley Q.L.D. 4341	Arnold goes Somewhere Else Mountain Palace Adventure Time Search	Steven Orr PO Box 255, Mirrabooka, Perth, W.A. 6061.	CPC Games; Forest At Worlds End, Bored Of The Rings, Warlord, Necris Dome, Zork I & II, Hitchhikers Guide To The Galaxy, The Hobbit, Swords And Sorcery. PC Games;
Steve & Robyn Ballard 126 Lyndhurst Road Boondall, Q.L.D. 4034	Warload, The Experience, Escape Message from Andromeda Forest at Worlds End, Phoenix Mission Heroes of Karn, Jewels of Babylon	Zork I, Hitchhiker Guide To The Galaxy, Kings Quest I, II & III, Police Quest, Space Quest, Land Of The Lounge Lizards, The Hobbit, Castle Adventure, Crime Adventure, New York Adventure, Buckaroo Bonzai.	
Karla Slack P.O. Box 201, Springwood N.S.W. 2777	Adventure Quest, The Hobbit, Zork II, The Neverending Story (1) Wishbringer	Bobby Lockett 5 Wendy Place Prospect. Tasmania. 7250.	The Hobbit, Zork I, Enchanter, Tau Ceti Sorcerer, Planetfall, Mordons Quest, Jewels of Babylon, Forest At Woods End, Neverending Story, Swords and Sorcery,
John McNeill 1 Hawkins St. Chatswood Hills, Qld 4127	Jewels of Babylon The Trials of Arnold Blackwood	Bugsy, Seabase Delta. Message From Andromeda, Leather Goddesses of Phobos, Everyones a Wally, Pyjamarama, The Boggit, Robin of Sherwood, Sorcery+, Shogun, Academy, Knight Tyme, The Wild Bunch, Jack The Nipper.	
Dean Stibbe 25 South Esplanade Bribie Island Qld 4507	Seabase Delta, The Trials of Arnold Blackwood, Colossal Adventure, Dracula (parts 1&2)	Barry Hoole 4 Dobson Road Shepparton Vic 3630	Acheton, Adventure Quest, Arnold goes Somewhere else, Aftershock, Ashkeron, Black Crystal, Brawn Free, Castle Advent., Castle Blackstar, Circus, Classic Adventure,
Michael Fitzgerald 54 View Road Burnie Tasmania 7320	The Hobbit, The Neverending Story	Colossal Adventure, Countdown to Doom, Crystal Quest, Desert Island, Dun Darach, Dun-geon, Adventure, Emerald Isle, Enchanter, Espionage Island, Eye of Bain, Feasibility Experiment, Golden Apple, Golden Baton, Ground Zero, Guild of Thieves, Heavy on the Magick, The Hobbit, Inca's Curse, Infidel, Invincible Island, Jewels of Babylon, Kentilla, Last Will and Test-ament, Leather goddesses of Phobos, London Adventure, Lords of Time, Mansion Quest, Marsport, Mission X, Moonmist, Mordons Quest, Murder at the Manor, The Neverending Story, The Pawn, Pharaohs Tomb, Philosophers Quest, Planet of Death, Return to Eden, Return to Ithaca, Rifts of Time, Sherlock, Ship of Doom, Smugglers Cove, Snowball, Starcross, Subsunk, Ten Little Indians, Terrormolinos, Time Machine, Time Quest, Tir Na Nog, Traveller, Trials of Arnold Blackwood, Valhalla, Volcanic Dungeon, Warlord, Wise and Fool of Arnold Blackwood, Wishbringer, Worm in Paradise, Zork II, Zork III	
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.		
James Green	Adventure Quest, Time & Magik Trilogy,		

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

COMPLEAT UTILITIES

• *Newsweep* - one key erase, copy, rename and print, plus many other features. Ideal for sorting out your disc collection quickly and efficiently • *Superzap* - disc sector editor - edit by track/sector or filename. Fully menu-driven with cursor key SETKEYS file *DisckitA* - multi-choice disc formatter, offers 178k data format for PCW discs and 5.25" second drive formatting • *Unerase* erased files • *Read/write* PCW discs on a CPC • *CP/M v2.2 emulator* • *Make* - allows you to copy files across user areas • *Cleanup* - useful for speedy file deletion • *Lookat* - speedily lists any file in Hex and ASCII • *Screen Dump* (CPC only) • *Password* • *Easy Lister* • *Password Protection* • *File* • *Scrambler* • *File Splitter* • *Directory check*

CPC Ref: #606 PCW Ref: #806

TEXT PROCESSING UTILITIES

• *Sideways* - prints text file sideways on an Epson-compatible printer. Ideal for those wide spreadsheets • *Sort* any ASCII list into alphabetical order • *Word count* - can be used on any ASCII file • *WSClean* - removes higher order bits from a text file and converts it to straight ASCII • *Calendar Generator* - prints out calendar for any year • *Simple Spell Checker* - with starter diction-

ary 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

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CPC Ref: #612 PCW Ref: #812

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A varied selection of the best machine code programs available for CP/M. Includes Pacman, Snake (PCW only), Chess, Othello, Mastermind, Spellit, Awari, Life, Golf, Polish Pong, Maze, Biorhythms, Word Search puzzle maker, TicTacTo.
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CPC Ref: #614 PCW Ref: #814

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PCW Ref: #815

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 Sec/Treas: Bill Brown (058 21 7569) or (058 22 1011)
 Venue: 98 Nixon Street, Shepparton on the first floor every third Wednesday from 7.30 pm.

LATROBE VALLEY AMSTRAD USER GROUP

President: Stan Hughes
 Secretary: M.G. Donaldson (051 345 7111)
 Venue: Morwell Neighbourhood House, 17 Symons Crs., Morwell on the first Thursday of each month at 7.30pm.
 Mail: PO Box 947, Morwell, Vic 3840

MARYBOROUGH AMSTRAD USER CLUB

President: Chad Banfield (054 68 1351)
 Treasurer: Brendan Severino (054 61 3191)
 Secretary: J. Fothergill (054 75 2667)
 Venue: Maryborough CCC each week on Tuesday from 12.10 p.m. to 12.45 p.m.

MOUNTAIN DISTRICT AMSTRAD USER GROUP

President: David Jamieson (03 870 1016)
 Treasurer: Ian Pearson (059 965 019)
 Secretary: Craig Bell (03 758 9921)
 Venue: Country Womens Association Hall, 4 Sundew Avenue, Boroonia from 7.00 pm. every second Monday of the month.
 Mail: PO Box 132, The Basin, Vic 3154

NORTHERN AMSTRAD USER GROUP

Contact: Brian Ellis (03 469 4425 A/H)
 Venue: Every three weeks in Brunswick West for CPC owners with a sincere interest beyond games.

SOUTHERN AMSTRAD USER GROUP INC.

President: Michael Toussaint (07 200 5414)
 V/President: Peter Incol (07 208 2332)
 Secretary: John Botwright (07 208 4969)
 Treasurer: Ronald Waters (075 317 838)
 Venue: Communications block, Longanlea State High School, every third Saturday of the month from 2pm.
 Mail: The Sec., PO Box 100, Seaford, Vic 3198.

SUNBURY MELTON AMSTRAD USER GROUP

Contacts: Wayne Urnston (03 744 2719)
 Norman McEntee (03 743 7104)
 Venue: Tooleen Vale Hall, Tooleen Vale every third Saturday at 10.00 a.m.

WENDOUREE AMSTRAD USER GROUP

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

ACT

CANBERRA AMSTRAD USER'S GROUP

Convener: Paul Kirby (062 86 5460)
 Secretary: Michael Hickey (062 58 5719)
 Treasurer: Rod MacKenzie (062 54 7551)
 Venue: The Oliphant Building, ANU, Canberra on the first Wednesday of each month from 7.30 pm.

Mail: PO Box 1789, Canberra, ACT 2601.

NEW SOUTH WALES

AM-USER's (North Ryde)

Contact: Lawrence Walters (02 888 1898)
 Venue: Meeting Room at 2 Leisure Close, North Ryde from 7.30 p.m. on the first Tuesday of each month.

BLUE MOUNTAINS AMSTRAD USERS

President: Bob Chapman (047 39 1093)
 Vice Pres: Dennis Shanahan (047 39 4568)
 Treasurer: Peter Traish (047 53 6203)
 Secretary: Christine Preston (047 51 4391)
 Venue: Springwood Neighbourhood Centre, Macquarie Road, Springwood on the 4th Wednesday of each month at 8.00pm.

CENTRAL COAST AMSTRAD USERS CLUB

President: Lloyd Mitchell (043 88 2950)
 Secretary: Douglas Green (043 42 2568)
 Treasurer: Pat Thompson (043 32 9095)
 Venue: Mingara Recreation Club, Adelaide St, Tumby Umbi every 2nd and 4th Monday at 7.30 p.m. sharp.

COFFS HARBOUR AMSTRAD COMPUTER CLUB

President: Bruce Jones (066 52 8334)
 Secretary: Don Donovan (066 52 6909)
 Treasurer: Brian Claydon (066 49 4510)
 Venue: Orara High School, Joyce Street from 7.00 on the first Friday of each month.

FAIRFIELD MICRO USER GROUP

Contact: Ekrem [after 6.30 pm] (02 609 6581)
 Venue: Room 65, Canley Vale High School, Prospect Road, Canley Vale every third Wednesday from 7.00.

HAWKESBURY AMSTRAD USER GROUP

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

ILLAWARRA COMPUTER USERS CLUB

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

LISMORE DISTRICT AMSTRAD COMPUTER CLUB

President: Max Muller (066 337 113)
 Vice Pres: Nick Van Kempen (066 874 579)
 Sec/Treas: Laurie Lewis (066 62 4542)
 Venue: Goonellabah Public School, Ballina St. on the last Tuesday of each month from 6.30.
 Mail: 20 Johnston Street, Casino, NSW 2470

S & W MILLER AMSTRAD USER'S CLUB

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

S & W MILLER NEWCASTLE USER GROUP

President: Chris Hollander
 Secretary: Mark Pogson (049 613181) B/H
 Venue: Hamilton North Bowling Club, Boreas Road, Broadmeadows on the third Tuesday of each month.

MURWILLUMBAH AMSTRAD USERS GROUP

President: Nick Bruin (066 79 3280)
 Vice Pres: Kel Philip (066 77 1440)
 Secretary: Laura Goode (066 72 2499)
 Treasurer: Lorraine Montgomery (066 72 1823)
 Venue: Murwillumbah High Sch. on the 2nd Wednesday of each month at 7.00pm. c/o Post Office, Burringbar, 2483

NEWCASTLE AMSTRAD USER GROUP

President: John Harwood
 Treasurer: Erica Harwood
 Venue: Contact John Harwood at the address

shown below.
 Mail: PO Box 18, Charlestown, NSW 2290

PCW AUSTRALIA GROUP

President: David Springett (02 660 4515)
 Secretary: David Chamberlain (047 77 4396)
 Venue: Burwood RSL Club, 96 Shaftsbury Road, Burwood every second Tuesday of the month at 7.30 pm.
 Mail: PO Box 97, Annandale, NSW 2038.

PORT MACQUARIE AMSTRAD USERS GROUP

Mail: Craig Tollis, Box 584, Pt. Macquarie, 2444.

SYDNEY AMSTRAD COMPUTER CLUB

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

SYDNEY PC1512 USER GROUP

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

QUEENSLAND

BRISBANE AMSTRAD COMPUTER CLUB

President: John O'Connor (07 271 3350)
 Vice Pres: John Digby (07 351 2553)
 Secretary: Bob Ashe (07 355 5699)
 Treasurer: Ivan Dowling (07 269 8795)
 Tech. Editor: Franz Hendrickx (07 356 0633)
 Venue: Main meetings in Room 15a of Junction Park State School, Waldheim St., Annerley starting at 7.30pm on the 1st Tues. of the month.. Another is held at Wynnum Central State H.Sch, Florence St., Wynnum Central on the 3rd Saturday of each month at 1.00pm. The coordinator is Warren Kennedy (07 351 4232).
 A third is held at Newmarket State Sch., Banks St., Newmarket on the second Saturday of each month at 1.30pm. The co-ordinator is Cherry Shrier (07 351 6179).
 Mail: PO Box 167, Alderley, Qld. 4051

BUNDBERG AMSTRAD USER'S GROUP

President: Ray Babbidge (071 72 1223)
 Secretary: Clive Barrett (071 71 3668)
 Treasurer: Sheila Coe (071 72 8884)
 Venue: The third Tuesday of the month. For more details contact the above.

Mail: 11 Laack St., Bundaberg, QLD 4670.

CABOULTURE AMSTRAD USER GROUP

President: John D'Archambaud (071 95 4860)
 Secretary: Stephen Yench
 Treasurer: Craig Deshon
 Venue: Contact above number for more details.

CAPRICORN AMSTRAD USERS GROUP

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

COMPUTER USER GROUPS OF AUSTRALIA

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

GOLD COAST AMSTRAD USER GROUP

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

IPSWICH AMSTRAD USER GROUP

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

MACKAY AMSTRAD USER GROUP

Contact: Des Mulreality (551 409)
 Ron Coates (547 222)
 Venue: Meet every second Sunday morning. Contact the above for location and time.

PENINSULA AMSTRAD CLUB

(amalgamated with BACC)
 President: Ivan Dowling (07 269 8795)
 Treasurer: Keith Johnston (07 203 2339)
 Secretary: Tracie Payne (07 267 6645)
 Venue: Kippa-Ring State School Library, Elizabeth Avenue every third Tuesday of the month at 7.30 pm.

SOUTHSIDE AMSTRAD USER GROUP (QLD)

President: Michael Toussaint (07 200 5414)
 Vice-Pres: Peter Incoll (07 208 2332)

Secretary: Mick Howe (07 209 1839)
 Treasurer: Wayne Stephens (07 287 2459)
 Librarian: Carol Watts (07 287 2882)
 Venue: Loganlea State High School (in the Communications Room) every 3rd Sat. of the month starting at 2.00 p.m. A Basic programming course is held fortnightly.
 Mail: 10 Carramar St, Loganlea, 4204

TOOWOOMBA AMSTRAD USERS GROUP

President: Stephen Gale (076 35 5001)
 Vice-Pres: Priscilla Thompson (076 35 5092)
 Secretary: Adrian Dunsmore (076 91 1561)
 Treasurer: Edwin Gerlach (076 33 1054)
 Venue: Toowoomba Education Centre, Baker Street, Toowoomba on the 4th Monday of each month starting at 7.30 pm.

TOWNSVILLE AMSTRAD USER GROUP

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

THE WARWICK AMSTRAD USER GROUP

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

WEIPA AMSTRAD USERS CLUB

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

WESTERN SUBURBS AMSTRAD USERS GROUP

President: Peter Wighton (07 288 4571)
 Secretary: Jimmy James (07 376 1137)
 Contact: Keith Jarrot (07 376 3385)
 Venue: The Jamboree Heights State Primary School, 35 Beanland Street, Jamboree Heights at 1.30 p.m. on the first Saturday in each month.
 Mail: Jimmy James, 36 Penong Street, Westlake, Brisbane 4074.

TASMANIA

SOUTHERN TASMANIAN AMSTRAD USER CLUB

President: David Burt (002 44 3385)
 Secretary: Lance Brown (002 28 2018)
 Treasurer: Robin Johnson

Publ. Off: Danny Brittain (002 47 7070)
 Venue: Northern Regional Library, Glenorchy on the fourth Wednesday of each month from 7.30 pm.
 Mail: PO Box 247, North Hobart, 7002

NORTHERN TASMANIA AMSTRAD COMPUTER CLUB

President: Keith Chapple (003 26 4338)
 Treasurer: Shane Crack (003 97 3298)
 Secretary: David Double (003 44 4243)
 Publicity: Bobby Lockett (003 44 8972)
 Tech. Off: Richard Wilson (003 93 1437)
 Junior Del: Jay Donati (003 31 6597)
 Venue: Launceston Community College (opposite Park Street) in Room 27 on the first Saturday of the month at 5.00 p.m.

N.W. COAST AMSTRAD USER'S CLUB

President: Peter Gibson (004 24 7586)
 Treasurer: Robert Simpson
 Secretary: Karen Stevenson
 Venue: Hellyer College, Mooreville Rd, Burnie on the third Friday of each month at 6.30.
 Mail: Secretary, 112 Payne St, Burnie 7320

NEW ZEALAND

THE AMSTRAD COMPUTER CLUB OF CANTERBURY

Contact: Christine Linfoot 897 413
 Ian Orchard 524 064
 Venue: Four Avenues School, cnr. Madras Street and Edgeware Road, Christchurch 1 on the fourth Wednesday of each month.
 Mail: Box 23.082 Bishopdale, Christchurch, NZ.

AMSTRAD USERS GROUP

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

WELLINGTON AMSTRAD USER GROUP

Contact: Tony Tebbs 791 072 (evgs)
 Venue: Cafeteria, NZ Fisheries Research Division, Greta Point, on the first Monday of each month from 7.30 pm.
 Mail: PO Box 2575, Wellington, New Zealand.

User Group Contact List

Please note that the following names are listed as contacts for new user groups and should NOT be viewed as a problem solving service.

NSW

Nick Rogers	Bogan Gate	(068)	64 1170
Chris Craven	Canowindra	(063)	44 1150
Trevor Farrell	Coolah/Mudgee area	(063)	77 1374
David Higgins	Cooma/Monaro	(064)	52 1531
Paul Wilson	Moruya	(044)	74 3160
Frank Humphreys	Mummulgum	(066)	64 7290
Reuben Carlsen	North Sydney	(02)	957 2505
Stephen Gribben	Singleton	(065)	72 2732
Ken Needs	St Ives	(02)	449 5416
Chas Fletcher	Toongabbie	(02)	631 5037
Nick Bruin Snr.	Tweed Valley	(066)	79 3280

VIC

Brian Russell	Ballarat	(053)	31 2058
C. van de Winckel	Ballarat	(053)	313 983
Rod Anderson	Camperdown	(055)	93 2262
Paul Walker	Heathmont	(03)	729 8657
Terry Dovey	Horsham	(053)	82 3353
Andrew Portbury	Leongatha	(056)	62 3694
R. Kernebone	Mildura	(050)	23 3708
Angela Evans	Mt. Evelyn	(03)	736 1852

Keith McFadden		(058)	62 2069
Maureen Morgan	Warnambool	(055)	67 1140

QLD

Beryl Schramm	Boyne Island	(079)	73 8035
Steven Doyle	Caloundra	(071)	91 3147
Ric Allberry	The Gap	(07)	300 1675
Kylie Telford	Goondiwindi	(076)	76 1746
D.F. Read	Ingham	(077)	77 8576
Ian Jardine	Pialba	(071 28 3688)	

SA

Lindsay Allen	Murray Bridge	(085)	32 2340
Mrs. S. Engler	Penola	(087)	36 6029

WA

Barry Kauler	Narrogin	(098)	83 1011
Graeme Worth	Scarborough	(09)	341 5211
P.M. Nuyens	Waroona	(095)	33 1179

TAS

Conal McClure	Scottsdale	(003)	52 2514
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NT

G.P. Heron	Twi	(089)	27 8814
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For new readers: if you want to start a group in your area just drop us a line with the relevant details and we will add you to the list.

BOOKS

CPC TITLES

	Subscriber Price	Normal Price
Advanced User Guide	\$19.75	\$21.95
Amstrad Compendium	\$21.65	\$23.95
Basic BASIC <<New stock>>	\$17.95	\$18.95
Childs' Guide to the Amstrad Micro	\$12.65	\$13.95
Disc System, The Amstrad CPC 464	\$26.15	\$28.95
Filing Systems and Data Bases for the CPC464	\$28.95	\$30.95
Graphics Programming Techniques	\$23.45	\$25.95
High Energy Programs for the Amstrad	\$ 9.95	\$ 9.95
Ins and Outs of the Amstrad	\$21.65	\$23.95
Machine Code for Beginners	\$18.95	\$21.95
Machine Lang. for the Absolute Beginner	\$21.65	\$23.95
Making Music on the 464/664 (OK for 6128 too)	\$21.75	\$23.95
Practical "C"	\$26.80	\$29.65
Ready made Machine Language routines	\$21.65	\$23.95
Structured Programming on 464/664/6128	\$27.95	\$30.95
Whole Memory Guide - 464	\$27.95	\$30.95
Writing Adventure Games on 464/664	\$21.65	\$23.95

LOGO TITLES

LOGO Pocketbook	\$16.95	\$17.95
Practical Logo on the Amstrad	\$25.95	\$27.95
Using DR Logo on the Amstrad	\$35.95	\$37.95

PCW TITLES

Advanced LocoScript on the Amstrad PCWs <<N E W>>	\$37.50	\$39.50
Desktop Publishing with the Amstrad PCW <<N E W>>	\$33.95	\$35.95
Locomail User Guide - new updated version	\$54.95	\$54.95
LocoScript Pocketbook	\$16.95	\$17.95
LocoScript2 and the Amstrad PCW Computers - a complete guide	\$41.00	\$43.00
Mallard Basic - Introduction and Reference by Locomotive	\$37.50	\$39.50
Mastering the Amstrad PCW 8256/8512	\$29.50	\$32.25
Program your PCW	\$29.95	\$32.95

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 \$49.95 \$52.95

PC TITLES

Amstrad PC1512/1640 Advanced User Guide <<coming soon>>		
Advanced Basic2 Programs on the Amstrad PC <<NEW>>	\$33.95	\$35.95
Basic2 User Guide by Locomotive Software	\$37.50	\$39.95
Business Computing with the Amstrad PC1640	\$42.00	\$44.00
Business Presentation Graphics on the PC1512	\$50.00	\$55.00
Communications with the Amstrad PC <<NEW>>	\$41.00	\$44.00
Introducing Lotus 1-2-3	\$14.95	\$14.95
Exploiting MS-DOS on Amstrad PC and IBM compatibles	\$44.50	\$46.65
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Using DOS Plus on the Amstrad PC1512	\$37.95	\$39.95
Using desktop publishing on the Amstrad PC <<NEW>>	\$28.50	\$29.95
Using GEM on the Amstrad PC1512		Reprinting in the UK
Using MS-DOS on the Amstrad PC1512/1640 <<NEW>>	\$28.50	\$29.95
Using Printers on the 1512/1640	\$28.50	\$29.95

OTHERS

Computers and the Law	\$62.50	\$65.00
Introducing dBase	\$14.95	\$14.95

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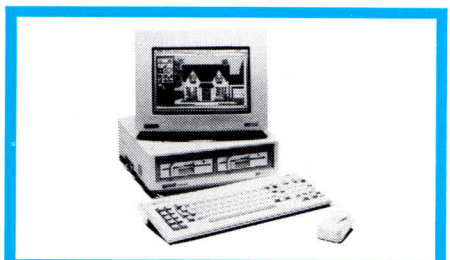
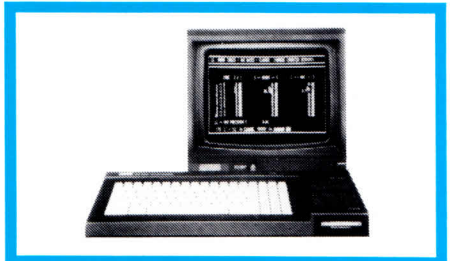
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MASTERFILE 8000, the subject of so many enquiries, is now available through The Amstrad User from Campbell Systems in the UK.

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Sales Contact : Martin McManic
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 5EG

Ref	Maker	Model	Specification	Price ex VAT
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CS002	Epson	FX105	100cps 8MM 132col	£410
CS003	Epson	FX105	100cps 132col	£195
CS004	Epson	LX100	100cps 8MM 00col	£435
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CS006	Epson	LX100	100cps 8MM 132col	£395
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CS020	Taxan	KP-810		£285

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493 Western Avenue
Gloucester
GL9 5JN

Tel: 0452 654321
Contact: Mike McManic
Ref: BUF

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		
12598	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

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