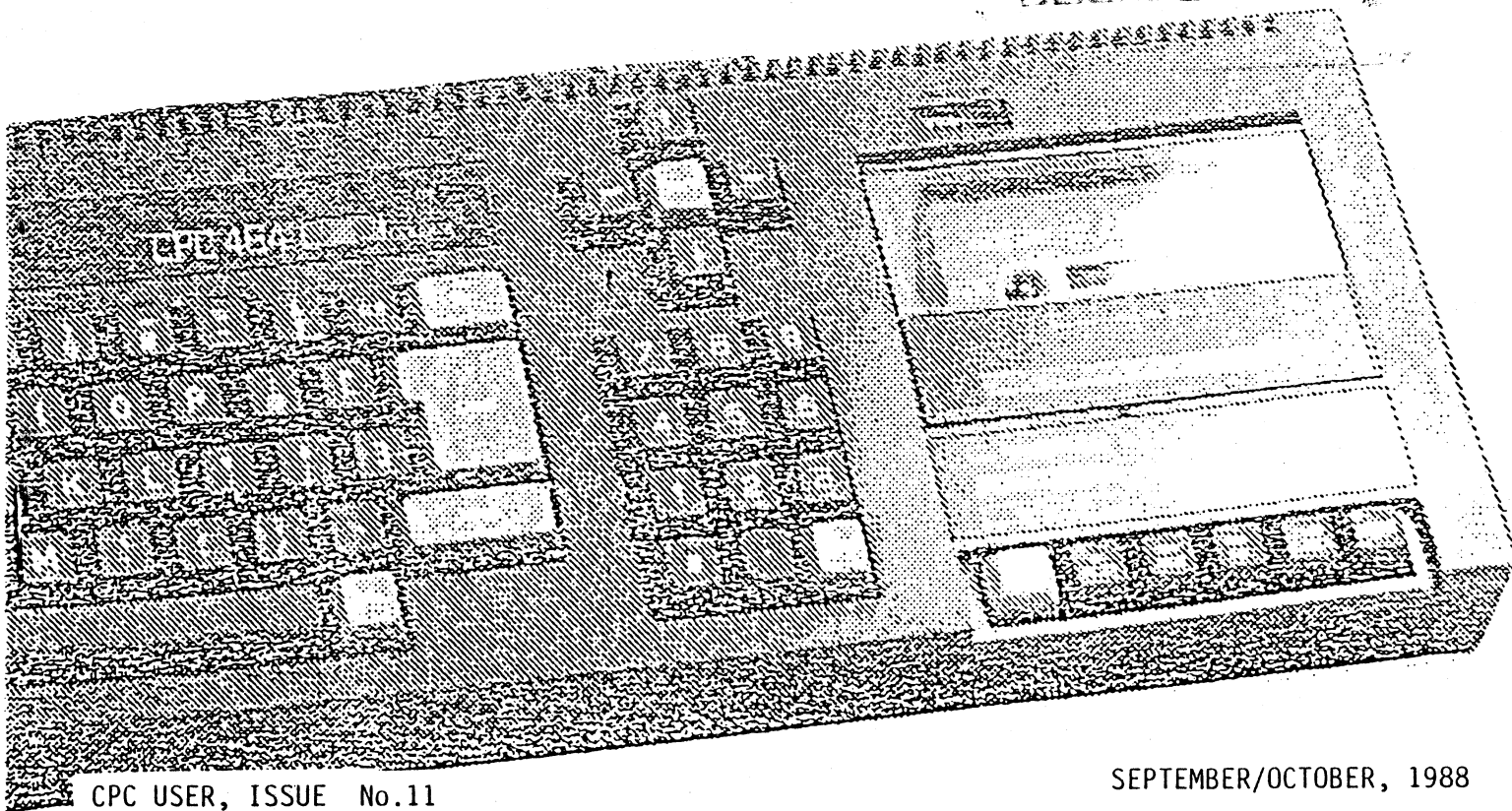


CPC

USER

THE BI-MONTHLY MAGAZINE
OF THE
UNITED AMSTRAD USER GROUP



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E D I T O R I A L

Our Doom 'n Gloom edition of May/June seems to have done the trick.

Within the last month, two members in quick succession offered their services as Programming Languages Editor. So, since the subject is so complex and wide ranging, we accepted both offers and we now have two Programming Languages Editors, although we have yet to sort out who is to deal with what.

In addition, two members came forward to offer themselves as Editorial Assistants and it is intended that these two gents will jointly assume the role of Executive Editor when yours truly stands down at the end of the year.

If that weren't enough, another member has accepted the post of Technical Queries Editor, and yet another has agreed to undertake responsibility for the printing and distribution of CPC USER.

The other good news is that there's been a substantial increase in UAUG membership, which now stands at 225. And, this figure may well increase as a result of the coverage given in Amstrad Action (no less than three separate plugs for the UAUG in the October edition alone!).

All very good news

If only we could recruit an Advertising Manager and a Communications Editor, our complement would be complete for the first time since the UAUG was formed. Any offers?

Don Snoad

C H A I R M A N ' S B I T

Welcome to Issue 11 of CPC USER. I have a few items of news which I feel I should pass on personally. It appears from the membership census that many members would like more help and contact with other members. As our main aim is to give members what they want, we are introducing a new Section called CONTACT.

CONTACT is intended to accommodate members' needs in three ways:

1. If you would like to advertise for a pen pal, then you may place an "Ad" in this Section. A typical "Ad" might be:

"I am interested in all aspects of Amstrad CPC computing. I would like to correspond with other members/users to share hints and tips. Contact: Fred Bloggs, 12 The Road, London SW1."

2. If you need help with a particular problem then you can have a request published. A typical request might be:

"I am having difficulties with Tasword 6128. Can anyone help or advise? Contact: Paula Bloggs, 13 The Road, London SW1 (tele: 01-123-4567)"

3. If you would like to help other members, an

offer can be published in CPC USER; for example:

"Having problems with Tasword 6128, Protext, Masterfile 464, Basic programming, Brother printers, Elite or Mag Max? If so I may be able to help. I can also offer limited help with machine code. Contact: Samantha Bloggs, 14 The Road, London SW1 (tele: 01-123-8893)"

CONTACT can be successful only if YOU make it so. So let's have your ads, requests and offers of help.

Each request for pen-pals or for help will be published for ONE ISSUE at a time; this can be renewed as often as you like, but we will be relying on you to keep us informed of your needs. Each offer of help will be published in every edition of CPC USER, until cancelled by the benefactor.

All requests and offers should be sent to Seamus Delaney, 91 Fairfield Avenue, Fareham, Hants PO14.1EN. Press dates for CONTACT are the same as for CPC USER.

Anyway, that's all the good news for this Issue! So, until the next edition - Happy Computing...

Gary Carter

BITS & BYTES

MYSTERY SOLVED ...

In CPC USER, Issue 6, we asked if any member had seen or heard of the CPC4320 mentioned in the computing press early in 1986. We have now discovered that the quotation was made by an over-enthusiastic journalist who was referring to the combination of a 256k memory expansion with a CPC464 which, he said, produced 320k of memory. Ergo - CPC4320 !

CHRISTMAS COMES BUT ONCE A YEAR ...

We were surprised to discover recently that a nation-wide electrical goods distributor markets Amstrad computers only at Christmas. A Curry's spokesman stated that "...we don't have anything to do with them at any other time..." Do they really believe that existing buyers will wait until Christmas to make a warranty claim or to obtain product support ?

DE-MONOPOLISED ...

On page 18 of CPC USER, Issue 8, we stated that the Uniform, Matchmaker and Matchpoint utilities are marketed exclusively by Timatic Systems Ltd. It has been pointed out to us that these programs are also available from System Science Computers, 6 West Smithfield, London EC1A 9JX (tele: 01-248-0962).

CANON BACKFIRE ...

Members on the verge of buying a dot matrix printer would be well advised to determine whether any constraints are imposed when selecting NLQ mode.

Some printers will default to Pica (10 CPI) whenever NLQ is selected, and this can be a serious restriction if text files are already formatted for any pitch other than 10. With such printers, it is necessary to reformat text files to 10 CPI before they can be printed in NLQ mode. One example of such a printer is the Canon PW-1080A.

ORIGIN UNKNOWN ...

Will the member who kindly submitted an article on the DMP2000 printer please contact the Executive Editor.

DISK LABELLING ...

A few members have experienced difficulties in getting the Disk Label Type-in (CPC USER, Issue 7, page 15) to work, the problem being that their printers will not respond to the 'M' command with condensed Elite. This is invariably because their printers are not 100% Epson-compatible despite being marketed

as such. To overcome this, substitute 'P' for 'M' in the one-line program and all should be well.

Members have also enquired about the possibility of modifying the type-in to obtain a print-out with the filenames sorted in alphanumeric order. This cannot be achieved by altering the program (because the program merely commands a screen dump to the printer), but can be achieved by using an alternative command to DIR. The easiest method is to utilise SD.COM which will give a four-column sorted directory, or INDEX.COM which will give a three-column sorted directory; both SD.COM and INDEX.COM are available from the UAUG PD Software Library.

JOIN THE CLUB ... OR, MAYBE NOT !

It seems that CPC USER is not alone in suffering from printing delays. The July edition of COMPUTING WITH THE AMSTRAD PCW was due out on June 11 but still hadn't reached the bookstalls by July.

Unfortunately, it was more serious than a printing problem and it wasn't until late July that we learned of the sudden demise of that magazine. The magazine staff certainly weren't aware of any impending problem and in the June edition referred to their plans for improvements resulting from a recent reader census. The closure must have been quite a shock for them.

The magazine has now been absorbed into AMSTRAD PCW MAGAZINE, published by Avralite Ltd who trade from the same address as Database Software Ltd and Database Publications Ltd, which latter publishes COMPUTING WITH THE AMSTRAD CPC. It is also a curious fact that the Registered Office of AMSTRAD PCW MAGAZINE is at the same address at Brentwood as Amstrad plc (formerly Amstrad Consumer Electronics plc, and includes Lazahold Ltd who run the Amstrad User Club under licence from Amsoft).

Watch out AMSTRAD ACTION and 8000 PLUS !

PROSPELL LIMITATION ...

A statement in the Arnor advertising blurb confirms that PROSPELL can be used as a stand-alone program for spell-checking any ASCII text, thereby implying that it can be used on text files generated by other word processors such as Wordstar and NewWord. What the statement does not say is that the ASCII text files MUST be in Amstrad CP/M Plus format. Prospell cannot be used with ASCII text files in generic CPM-80 format.

Whilst the Arnor Protext/Promerge/Prospell suite of programs is available for the Amstrad CPC/PCW, CPM-86 and Atari ST formats, it still isn't marketed in generic CPM-80 form. With such a wide potential market

world-wide, we suggest that Arnor's persistent refusal to tap the CPM-80 market is a very short-sighted policy.

With such a vast untapped market which would welcome Arnor's programs with open arms, one is tempted to ponder on the reasons why Arnor inhibit their business in this way.

HEFTY PRICE INCREASES ...

When Dk'tronics were taken over by Ram Electronics there was some uncertainty about the continued production of silicon disks and memory expansions for the CPC computers. However, it would seem that the peripherals will continue to be marketed albeit at much higher prices. Ram Electronics have announced price increases of between £5 and £50, as follows:

256k silicon disk: was £99.95 now £149.95;
64k memory expansion: was £44.95 now £49.95;
256k memory expansion: was £79.95 now £129.95

The 64k silicon disk is not listed and presumably has been discontinued.

Some local suppliers still have stocks of the original Dk'tronics products which are currently priced as follows:

64k silicon disk: £29.95; 256k silicon disk: £75;
64k memory expansion: £29.95; 256k memory expansion: £75.

MORE PRICE CHANGES ...

For almost a year, the database program INSTANT RECALL has been available from the Home Computer Club for £4 which made it the cheapest database program on the market. But all good things come to end and the price is now £12.95, an increase of more than 300%!

From the same source, PYRAWORD on tape is £11.20, PYRADEV on disk is £22.45, GRAPHIC ADVENTURE CREATOR on tape is £13.95 and ARNOR C on disk is £36.95, to name but a few.

The address of the Home Computer Club is Swindon X, Wilts. SN99.9XX. The HCC offers a fairly wide range of games, adventure and business software, but failed to secure stocks of Gunship and are unable to supply this recent release from Microprose.

YET MORE PRICE INCREASES ...

The cost of updating the ROM versions of PROTEXT, PROSPELL and PROMERGE PLUS has been increased by 40% from £5 to £7 per ROM. The current Amsdos version numbers are:

Protex: 1.22; Promerge: 1.10; Prospell: 1.07

Enquiries to Arnor on 0733-239011.

FOR THOSE BORN YESTERDAY ...

In July, Ashton-Tate launched a marketing campaign for version IV of dBase using the slogan: "How to buy dBase IV for £70". All you need to do is to buy the current dBase III Plus at the recommended retail price of £525 + VAT and Ashton-Tate will allow you to buy dBase IV (when it becomes available) for £70 + VAT. The retail price of dBase IV is expected to be £595 + VAT.

In reality, a cute gimmick to delay the release of version IV to offload existing stocks of version III with no real price advantage to the buyer and no financial loss to the seller!

UNPRINTABLE MODE ...

One undocumented pitfall in Protex is that although a block of text can be defined in Box Mode it is a mistake to attempt to print a block so defined. Any attempt to print a block defined whilst in Box Mode will result in a stoppage of print-out at the end of the first line. To define a block for printing, the normal block markers should be used.

HALF PRICE PRINTER RIBBONS ...

Printer ribbons are being offered at half price by a supplier in Perivale who claim that the major proportion of the cost of ribbons is in the plastic casings. Therefore, why not return your exhausted ribbon to them for refurbishment. Typical prices are:

Epson FX, MX	£1.73;	Canon PW1080A	£2.15
Amstrad DMP	£2.10;	Amstrad PCW	£2.78

Prices are inclusive of return postage but you pay on return and only if satisfied.

For service or further details, contact:

JP Ribbons
Freepost
67 Empire Road
Perivale
Middlesex UB6.7EJ

DISCOUNT DISCONTINUED ...

Regretfully we have to announce that Alligator Software have ceased trading.

BYE BYE ...

As some of you will already know, our Executive Editor tendered his resignation in July and will be leaving CPC USER at the end of the year; his successor will be announced in CPC USER, Issue 12.

GAMESSOFTWARE

ARCADE NOW - AMSTRAD LATER ?

by Clive Bentham

Whilst Issue 10 was being published, I managed to wangle a weeks holiday in the exotic surroundings of Costa Del Gt. Yarmouth. This is very close to Costa Arm and a Leg which it very nearly did. Anyway, as if I were being punished for some previously committed and forgotten sin, it rained for most of the week, and everyone's feelings were nicely summed up by Granny, who whilst wrapped in three woollies and sat outside the Arcade waiting for the Bingo to open said: "And what brain surgeon chose this week for a holiday ? !" Oh well, you win some, you lose some - but I digress again.

As you can't have failed to notice, the current policy of the major software companies seems to be heavily biased towards converting Arcade coin-op games for home computers. So, as I was being dragged around the Arcades by the kids anyway, I thought I may as well put it to good use and have a good look around to see what was on show, because what's in the Arcades now is likely to be on the Amstrads later ?

3D DRIVER *****

I wandered around for a good two hours enjoying myself looking at all the different machines from the old Pacman to the modern Thunder Blade, which is a helicopter flight and combat simulator. This machine looked terrific and was very popular. I saw one youth having go after go and, at 50p a time, it didn't take him long to get through his £5.00 ... He wasn't very good at it. I can't begin to describe all the different machines on display, but out of them all I was really impressed by a coin-op that I hope will be converted to the Amstrad home computer in the near future.

The machine was a racing car simulation made by the Taito Corporation called CONTINENTAL CIRCUS 3D DRIVER, and is a true 3D game, just like the cinema 3D. The normal size, single screen, is viewed through a small eye mask which is attached to the top of the cabinet by two arms and is pulled down and adjusted to the players eye level. The cabinet stands upright with the screen slanted slightly backwards, and an accelerator pedal at the bottom of the cabinet with the steering wheel in the centre, beneath the screen. The player sits in front of the controls on a small extendable plastic seat.

To look at the screen normally it appeared to have a bug in the program as there were multiple images and the whole graphic display seemed to be vibrating from side to side at a fast rate with no 3D effect at all. However, viewed through the special eye mask all flickering stops and you're treated to real 3D.

As in other car racing games the view of your car is from above and behind but there the similarity stops. Due to the superb 3D, your car literally stands out from the screen ... you can almost touch it ... and the roadway appears to come right at you, rather than just scrolling down the screen under the car. Added to this, the track not only contains the normal bends and straights to negotiate, but the car undulates over gentle slopes as in Enduro Racer, and leaps over sharp hump backs.

The 3D makes these road features so realistic that my stomach jumped every time I hit a hump back, and the smooth undulations started to make me travel sick. The other cars also appeared in 3D and the whole effect was incredibly realistic and just like being there.

The main task in hand of course is to race against the other cars on the track but I was so taken by the 3D graphics that at first I just drove round in amazement at what I was looking at. The game play is packed full of stunning features; for example, if you crash into another car it doesn't always end in disaster but sometimes only results in damage to your car in the form of a smoking engine, with a message displayed on screen, requesting you to enter the pits on the next pass.

As the pits loom up, you make a left into the pit lane and the car automatically comes to rest with smoke still billowing from the engine. Almost at once, your pit team rush out from the left hand side and come around the back of your car where one of them douses the flames with a blast from his fire extinguisher. The 3D is so realistic it's incredible. With the fire put out, a voice booms "Go! Go! Go!" and the car accelerates along the pit lane with the back end twitching from wheel spin before rejoining the circuit and the race.

If the pit warning is ignored and you attempt to continue the race with a smoking engine then it's not long before your car suddenly erupts into a ball of flame, sending debris everywhere in brilliant 3D and I actually flinched away as a large rear wheel and tyre came straight at me from the centre of the explosion.

This is undoubtedly the best racing game I've ever played. It has absolutely stunning and realistic cinema type 3D graphics, the likes of which I have never seen before on any other machine. It certainly knocks the spots off the Out Runs and AfterBurners and I sincerely hope that it can be converted to an 8 bit format. I don't know what the technical requirements are to produce this type of 3D ... if anyone knows I'd be very interested to hear from them ... and I have not seen it mentioned in any magazines (unless I've missed it) but I hope it can be done.

So if you're anywhere near the Arcades this year, and you haven't already come across it, look out for this little beauty and have yourself the nearest drive to the real thing yet. At 20p a go it's worth a pound or two.

One interesting fact is that I saw on television late one night recently what they called an Engineers Test, and this took exactly the same form as the racing game with multiple vibrating images, so maybe we'll be getting 3D TV soon.

PLAYERS CORNER *****

This is the section where you, the software buyers and real players, have your say and the chance to write about the games you're good at, and tell us how it's done and the best things to do to win. The response to last Issue's request for material from you all has got off to a fairly good start with a few nice letters, and to those of you that wrote in, many thanks. If you haven't written to me yet get started now and you'll be in the next Issue. Read the Gamers Gems section, and if you can help with any of the requests then please do so, and don't forget, if you would like to know how to progress in a certain game and get some real playing gen, then let me know, because someone should have it and will know all about it. To blast off this Issue then, I've written a playing guide for one of my favourite games and I hope that you find it useful.

I am a very big fan of flight simulator / combat type games, in the mould of Strike Force Harrier, Fighter Pilot, F15, Tomahawk, ATF, etc. These games are excellent stuff, and whatever the freudal reasons may be, there's nothing quite like swooping down onto a tank or another aircraft and blowing it to smithereens. Of course, as well as 20th Century machines to fly and battles to fight, there is another dimension to this type of combat..... Space.

TAU CETI *****

There are a number of really good space combat games already in existence for the Amstrad, and for out-and-out craft to craft dogfighting in space, you won't beat the panic and excitement of battle in CODENAME MAT.

GAMES SOFTWARE

Ignore the scenario it's silly, but the solid 3D graphics of enemy ships attacking from all directions, and the instrument flying, and battle techniques needed to play this and win, are wicked. (I can win on level 2 Commander if anyone wants some tips.) However, for a space combat game that combines a brilliant overall flight mission, lots of battle strategy needed to survive, and superb explosive blasting action, then TAU CETI is tops for me.

Some Background Info.

All the action takes place on the surface of the planet Tau Ceti, which long ago was hurriedly evacuated of all human beings due to a killer virus that swept the planet and when the people left they were forced to leave behind all their robot machines, and the reactor stations that powered them. After a long period of time laying dormant, the planet has been shown to be clear of the deadly virus, but a malfunction in the robot machines has led them to attack anything that approaches. Before the planet can be re-colonised therefore, the robot machines have to be halted by shutting down the central reactor and cutting off their power supply.

The Cooling Rods

The planet has numerous cities scattered over its surface and the cooling rods needed to shut down the central reactor are located in these cities in reactor sub-stations. Unfortunately, the cooling rods are only found in halves, and it is necessary to match the appropriate halves together to form complete cooling rods. The completed rods must then be conveyed to the City of Centralis and inserted into the central reactor there. Twenty such rods are required in order to shut down the reactor.

What You Have To Do

Your mission then is to pilot your skimmer craft into each city, fending off any attacks by the robot machines, locate and dock with the reactor sub station, and collect any cooling rods found there. As well as roaming robot machines, each city is populated by various kinds of buildings, some of which are fitted with robotic defence systems and will fire on you, and some will not. In some cities also, there are Military or Civilian Supply Depots with which you can dock and re supply and repair your craft. The skimmer you fly is armed with lasers and 8 radar guided missiles and the instrumentation includes short range radar scanner, compass, a city centre homing beacon, and a targeting and tracking device. These instruments are vital for navigation and battle survival, and they will serve you well.

Navigation Tips

Navigation from City to City is by way of a jump pad system, and is straight forward enough with the planetary map showing the system in full. Navigation within a city however, is by way of the skimmer's compass, and it's this part of the navigating that causes most problems for people. The easiest way, is to visualize each city as being square shaped, with any jump pads being located midway along the sides of the square, and they form the outer limits of the city. (See Figure 1).

The compass is orientated in the normal fashion and it's use should present no problems. (Unlike ACADEMY where the configuration is reversed.) All the buildings, robots, and installations are found within the confines of the square and the city can therefore be mapped quite easily.

Mapping

Having collected the cooling rods from the various cities they must be returned to the main reactor in Centralis which means that you must invariably travel back through some cities that you have already passed through. Therefore the mapping of each city as you come to it is strongly recommended because it makes your task easier and quicker on the return journey. Plus of course that if your skimmer does get destroyed and you have to start over again then you will have a map to assist you.

KEY:- JP = JUMP PAD
R = REACTOR
C = CIVILIAN SUPPLY DEPT
+ = CITY CENTRE

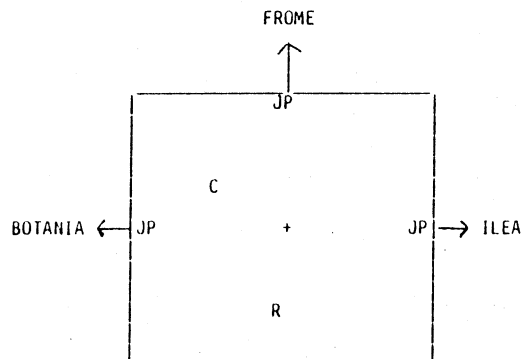


Fig. 1 Map of The City of Minstro

When mapping a city, first establish how many jump pads it contains, and their various destinations by referring to the planetary map on board the skimmer. Draw a square on a piece of paper and plot the jump pad positions and their destinations first. Fig 1 shows the City of Minstro which has 3 jump pads, North, East, and West. Having arrived in Minstro from the city of Ilea for example, then the skimmer would be on the Eastern jump pad. From there it's a case of advancing say NW, which will take you to the Northern jump pad, and seeing what you meet on the way.

If it's robots deal with them, if its reactors or supply depots then plot them in the square in relation to the compass heading you're on. Some installations can be seen directly from the jump pads, so that's an easy matter of pointing the skimmer at it and reading off the compass heading. Distance has to be estimated of course, but each city area isn't too large and if it isn't in view at first you soon get visual contact. I found it unnecessary to try and plot all the different buildings and positions of robot attacks, as this just over complicates the map. All that's needed are the reactor sub station and any supply depot positions so that the direction needed to reach them from any jump pad can clearly be seen.

When You Get Lost

If during the course of battle, or for any reason you become totally lost and disorientated, then just bring the skimmer to a halt, and use the city centre beacon. (the top bar gauge on the lower right of the instrument panel) Turn the skimmer so that the indicator is central in the bar and head for the city centre. When you reach there, the indicator will rapidly move off the bar gauge, and then you can steer the skimmer in the required direction.

Jump Pads

Once a city has been mapped out and the rods collected then use the planetary map and choose the next city to visit. Note the jump pads the new city contains, and their destinations and draw a new square. Move to the jump pad that will take you to that city and activate. A good tip here is to be stationary on the jump pad when it is activated because whatever condition the skimmer is in when the jump pad is activated, is the condition the skimmer will be in when it arrives at the other end. If you arrive in a new city and are stationary then you have time to clear your immediate surroundings of hostile robots, and time to consider your next move. If you arrive at top speed then you can blunder into a hornets nest and before long you become overwhelmed and your craft destroyed.

GAMES SOFTWARE

Fighting The Robots

Although the mapping of cities is quite easy in itself, the task is made difficult because you're not left in peace to do it. So whilst you are about your business you will have to deal with robot attacks, and you will encounter hostile buildings such as Fortresses and Watch Towers.

The first tip here is when moving through unmapped territory advance slowly whilst constantly monitoring the scanner and making frequent visual checks around the skimmer using the view change key. As soon as a visual contact is made stop the skimmer and try to identify the contact. Watch the scanner closely; anything that moves on its own is definitely hostile and must be dealt with straight away. These are usually the Hunter robot machines, and some of these have an anti-missile capability.

The best method of dealing with the Hunters is to be aware of their presence as early as possible, either by scanner or visually on the ground before they lift off, and as soon as the targeting light comes on then launch a missile. It is best to be stationary whilst dealing with these attacks because (a) the skimmer makes a more stable gun platform when stationary, and (b) because you're not moving, the Hunters take longer to reach you which gives more time to target and fire your missiles. If the Hunters are able to destroy your missiles then they can be destroyed by laser fire, and the trick here is to let them close in and give it one long laser blast. Concentrate on one target at a time until it's destroyed and don't be tempted to flit from one to another as they fly around you. Remember to use the view change key when looking or firing left or right etc., it's much quicker than turning the skimmer.

The other important hostile you will meet is the fortress building. These are easily identified by the distinctive three horizontal bars that lay across the buildings main vertical stem. All fortresses have an anti-missile capability so don't waste your missiles on them. They can be blown sky high with lasers and the trick here is to advance towards the building very slowly until it begins to fire at you. Stop the skimmer and give the building one long dose of laser fire. Just as the laser starts to overheat the fortress will blow. Some watch towers will also fire on you if you get too close, but these are easily dealt with by a missile or lasers and are not a serious threat. -- GOOD LUCK.

GAMERS GEMS *****

KEVIN RATIGAN from Workop in Notts writes:-

.... and lastly I would like to make a request of anyone who has the flight sim RED ARROWS. I have always meant to get this game but somehow it has slipped through the net, and if anyone has it could they do a blurb on it for me and say what it's like.

OK all you Red Arrow pilots out there, lets hear from you...and get Kevin airborne.

NEIL WADSWORTH from Luton in Beds writes:-

.... a good games section as well as all that technical stuff. I really look forward to a good blast on my computer when I get home from work, and I'm quite good at FIGHTER PILOT, ACADEMY and THRUST but I'm not very good at writing about them although I will try if anyone needs some tips. I have heard that STAR RAIDERS II is a really good space game but can't seem to find any reviews on it. I think it's a scrolling shoot 'em up but I'm not sure. Please print this letter as someone might have it and write in about it for me.

I'm sure you're far too modest Neil. Star Raiders II anybody?

PAUL BLACKMOORE from Beckingham in Kent writes:-

I enjoy the coin-op conversion type games and I am in full agreement with the software houses that keep producing them. I mean, they must be popular, they must be being bought in great numbers, and the software companies must continue to produce them, just as long as it is profitable for them so to do, so I look forward to all the new releases. I think I enjoy them because I accept them for what they are on the Amstrad, and don't expect miracles. It would appear that the main criticism of these games seems to be the difference between the arcade version and the home computer version, and the amount they suffer in the way of lost graphics and game play during the process of conversion. Take the Amstrad version of Out Run for instance. I enjoy it very much, but of course this is a glaring example of trying to fit a quart into a pint pot. This will always be the case however, as the 8 bit computer just has not got the horsepower to reproduce a coin-op machine whose hardware equipment, which can often include compact laser discs, and megabytes of memory, is solely dedicated to running one single program. The home computers that get nearest in terms of processing power are the 16 bit ST's and Amiga's, but even they can't cope with a lot of the coin-ops. (snigger snigger) So what it all boils down to is that CPC owners shouldn't expect the coin-op conversions to be an exact duplicate of the original but enjoy them and accept them as the good conversions that they are.

Any comments then people, or is that everybody's considered opinion on coin-op conversions?

An interesting note here though is that in an effort to overcome this conversion loss, and make their games even more popular in the home computer market, some companies are now using Amiga boards in their coin-op machines, where they can, so that any subsequent conversion will not only be easy but the finished game will be exactly the same as the coin-on op machine. (Great if you've got an Amiga).

ROBERT FRANKS from Peterborough writes:-

I would like to take advantage of the offer in Issue 10 of CPC USER and request that if anyone has the game ALIENS I would be obliged if they could give me some help. I can't seem to get on with it at all, and I don't know what I'm doing wrong.

ALIEN fans to the rescue please.

JOHN GOODWIN from Hackenthorpe Nr. Sheffield writes:-

Being a regular player of various versions of BATTLESHIPS when I was younger, I thought I would have a look at the computer version and give you my impressions. BATTLESHIPS is found on the Encore label and is priced at £1.99 on tape only. For a budget game it takes a while to load, but you are soon treated to the title screen which remains until loading is complete.

The option screen appears next and you may redefine the keys, use keys or Joystick, fire salvos, and select the number of players. The fire salvos option dictates whether 4 or more shots are taken. If the player chooses the computer as an opponent then the game is far too easy and no high score chart is available.

The basis of the game is to plot your own fleet positions where the enemy won't find you, and guess where the enemy fleet positions are when you fire. The battle scene shows your hits and misses and the game continues till one of the fleets have been sunk. This is a good value game for £1.99 with nice use of graphics and sound effects, although the green screen view can be dull. I would recommend the game and give it 8/10. Good for all ages.

SEE YOU ALL NEXT ISSUE ... HOPEFULLY. DON'T FORGET, WRITE TO ME WITH MATERIAL FOR THE GAMES SECTION AND HELP KEEP CPC USER ALIVE AND SHOOTING

CB

Following the review of the Mini Office II word processor (CPC USER, Issue 6), in which details were given of deleting the KOHLRABI.BAS space-filling files in order to recover 90k of disk space for text file storage, a number of members have written to us about the difficulties they were having in utilising the salvaged disk space. At the time of writing the article, a text file had been successfully saved to the disk, but in retrospect that must have been a 'fluke' because subsequent attempts to save files have failed and other users have experienced the same problem. We therefore wrote to Database Software for

advice; our letter and their reply are reproduced below.

We apologise to members for the frustration and inconvenience caused by the information given in our review. We believed the information to be accurate but this has since proved to be not so.

As is often the case with software distributors, the real point raised in our letter remains unanswered. However, it would seem that, although there is 90k of unused space on the Mini Office II program disk, the space cannot be utilised for file storage or for any other purpose.

May 25

Letter to Database Software:

Dear Sirs,

I would appreciate your advice concerning the Mini Office II word processing module.

Having made a working copy of the master disk using ODDJOB, I have deleted all the KOHLRABI.BAS space-filling files in order to recover 90k of usable disk space. However, I now find that the program will not save text files to the disk. Can you please advise me as to what needs to be done to enable the disk to be used for text file storage.

The Mini Office II user instructions make no mention whatever of any restriction on saving files to disk. Presumably, therefore, it is possible to utilise the 90k of free space on the working copy of the program disk. If this is not possible, would you please explain the reason.

I look forward to hearing from you.

Yours faithfully,

(Sgnd) D.A.Snod

June 27

Reply from Database Software:

Dear Mr Snoad,

Re: Amstrad Mini Office II Disk

In response to your recent enquiry concerning the above, we advise that files should always be saved to a separate BLANK FORMATTED DISK.

The CPC Mini Office disk is protected, so that if you attempt to save files on it you may cause damage. If it becomes corrupted in this way we would be prepared to re-duplicate it for a charge of £5.

Trusting we have been of assistance.

Yours sincerely,

(Sgnd) J.Hallworth
Technical Support

PROGRAMMING

PROGRAMMING LANGUAGES

by Stephen Gennard

Although I am a newcomer to the UAUG, and indeed to writing articles, I believe that I have enough experience of programming to be able to bring a new sparkle to this section of CPC USER.

It would be wrong of me to attempt to pick up where my predecessor left off so I intend to start from scratch by contributing a series of articles including the following:

1. A Beginners Guide to Amstrad Basic
2. An Introduction to the Art of Structured Programming, employing a new technique known as Jackson Structured Programming (JSP) using languages such as Basic, Cobol and Pascal.
3. An Introduction to High-Level Languages using the same languages as in (2) above.
4. An Introduction and Guide to Z80 Machine Code on the Amstrad Computers, dealing with everything from Add with Carry instructions to the Exclusive Or instruction (ADC-XOR).

However, if there are any other subjects, whether elementary or specialised, that you would like to see in CPC USER (or would rather not see) please let me know.

For the benefit of beginners, a computer language in some respects is synonymous with a human language. If I want to talk to you and be understood, I must use a language that you can understand (such as English). Similarly, a computer can execute an instruction only if a language is used that it can understand (i.e. interpret).

A computer language is very precise with no possibility of ambiguity; it must also be used accurately with no errors.

While a human can understand the differences in ambiguity a computer has to be told them; this is achieved by using a set of definitions to control the semantics of the language. Semantics is the meaning of the statement.

In order for you to learn a specific language you must first learn the semantics or the language. Often this is done automatically without any due consideration. A common example is when learning Basic, you automatically learn the fact that each line has to have a unique line number.

By using the idea that each language has its own unique set of definitions we can set about describing any language. An aid to describing languages has been developed called Backus-Naur Form (BNF).

Backus-Naur Form is a syntactical construction language (i.e. any language can be described by this). In BNF you can describe any part of a language by writing the statement as an argument.

Take the following statements, a digit is in the range 0-9 inclusive; a letter is in the range A-Z inclusive; an identifier (variable name) is made up of a letter followed by digit or letter until the end of the variable name. This can expressed in BNF as:

```
<digit> ::= 0|1|2|3|4|5|6|7|8|9
```

```
<letter> ::= A|B|C|D|E|F|G|H|I|J|K|L|M|N|O|P|Q|R|S|T|U|V|W|X|Y|Z
```

```
<identifier> ::= <letter> { <digit> | <letter> }
```

The | in the above expression means OR and { } denotes a possible repetition of zero or more times.

Using these simple rules any language can be defined, in the next article I will describe the language Pascal using BNF notation.

HINTS AND TIPS

In the July/August edition Warren Hardy wrote to MAILBOX giving details of the address of start of Basic. I give below a more complete list of useful locations associated with Basic for the 464, 664 and 6128 computers.

464	:	664/6128	:	Description

&AE81/2	:	&AE64/5	:	Start of Basic
&AE83/4	:	&AE66/7	:	End of Basic program

By altering the above locations you will be able to alter the start/end of a Basic program.

To read the current mode number just peek the system variable.

```
cnum%=peek(&b7c3) - 6128  
cnum%=peek(&b1c8) - 64
```

Next have you ever wanted to know whether or not the printer is on-line?

Try this:

```
IF INP(&F500) AND 64 THEN ? "Off-Line"  
ELSE ? "On-Line"
```

To finish my first article I thought it would be nice to finish with a puzzle. Why will this program never work?

```
10 REM ** Puzzle number 1 **  
20 LET count=0  
30 LET count=count+0.1  
40 IF count<>30 THEN GOTO 30  
50 PRINT "This program has worked!"  
60 END
```

The answer will be given in the next edition of CPC USER.

PROGRAMMING

IMPROVE YOUR PROGRAM WRITING

by Andrew Cope

SAVING MEMORY

Removing Semi-Colons

Most people seem unaware that in Locomotive Basic the semi-colon is necessary in only two conditions; the first is to suppress the automatic carriage return of a PRINT statement and the second is to separate the USING template from the expression being PRINTed.

The following PRINT statement is perfectly valid:

```
PRINT TAB(4)"The answer is"a%
```

Removing the semi-colons speeds up program execution by a small amount but, more importantly, each omitted semi-colon saves one byte of memory.

Removing Surplus Spaces

A lot of surplus spaces creep into programs because the programmer thinks that only a space can "terminate" a number or a keyword. In practice, a number can be terminated by any character which is "illegal" at that position in the number. Adding a space after a number wastes memory; try entering the following:

```
10FOR a%=1 TO 34
?FRE("")
10FOR a%=1TO 34
?FRE("")
```

Note the different values of free memory. The above examples also show a similar rule for keywords. Keywords can be terminated by any non-alphanumeric character. In English, that means a character which is neither a digit nor a letter; try the following:-

```
10FOR a%=1 TO 34 STEP -1
?FRE("")
10FOR a%=1TO 34STEP-1
?FRE("")
```

Again, note the difference. One classic example of saving space, is using the "?" abbreviation for PRINT. Since it is a symbol (i.e., non-alphanumeric) it can be inserted in a line without any spaces around it:

```
...THEN?a% ---> ...THEN PRINT a%
```

However, care must be taken when entering hexadecimal numbers, since the letters "a..f" are no longer "illegal". You can, however, still enter the following:

```
if a%=&3ethen?"Wrong
```

which becomes:

```
IF a%=&3E THEN PRINT"Wrong
```

but not:

```
IF a%=&3eand...
```

since Basic reads this as:

```
IF a%=&3EA nd...
```

Which brings to light another point. Wherever possible, make a string the last item on a line. This allows you to omit the closing double quote and thus save another byte of memory.

Using NEXT

Only supply NEXT with a list of variable names. When only one loop is being closed just use NEXT on its own. Although it's bad practice, Locomotive Basic will allow you to leave a FOR..NEXT statement without completing it; for example:

```
10FOR a%=1TO 10:GOTO 10:NEXT
```

will run for ever, without an error occurring. This saves you wasting code by deleting the loop yourself. The same applies to WHILE..WEND loops.

PROGRAMMING

When editing a program, remember that the LIST routine adds spaces when it prints out the line (as in the above example) so when using EDIT remember to remove all the additional spaces and replace PRINT with "?". The only space that can be left is the space after the line number. Basic will ignore that space anyway.

Unfortunately, Basic does not "ignore" additional spaces after the end of a line, so be careful not to overshoot with the copy cursor.

At the risk of reducing readability, DEF<type> can be used to allow the "dropping" of the type declarator. In practice though, I must admit that I don't use this method because it's more trouble than it's worth.

IMPROVING READABILITY

Array Notation

Replace the round brackets enclosing array subscripts with square brackets; thus:

```
a%(45,67)
```

This looks more professional since serious languages like Pascal and C use the notation. It also makes complex expressions easier to read since you avoid getting expression brackets mixed with subscript brackets. Lastly, it's easier to type square brackets than round brackets (you don't need the Shift key)!

Variable Type Markers

Although it takes up more memory, I ALWAYS use the variable type marker - even with REAL variables; for example:

```
a!=45,34
```

REM Statements

Start all REM statements with *; thus:

```
107* MAIN LOOP
```

Although it wastes memory, it

visually emphasises the REM statement.

SPEEDING UP PROGRAMS

Avoid using arrays to hold data for each player in a multi-player game. It takes Basic a lot longer to access a subscript than to access a single variable (after all, it has to access a single variable as part of the search for the subscript number...).

The only problem with this system is that it leads to code duplications; i.e., a different "main loop" for each player. Anyone who has a copy of my CENTROX Operating System can see an example of this in the CYCLE.COM program file.

Use integer variables ! A lot of people are still not using integers in loops; enter the following:

```
t=time:for a=1to 1000:next:?time-t
```

then:

```
t=time:for a%=1to 1000:next:?time-t
```

Use WHILE..WEND loops instead of a GOTO statement to enclose the main loops of a program. It serves two uses; these are:

1. It is quicker to use WEND to jump back.
2. It deleted all open FOR..NEXT and WHILE..WEND loops in one go, rather than as each is re-opened.

Put UDGs and control codes into strings, instead of using CHR\$(??) as it's quicker:

```
10t=time:for a%=1to 100:  
?chr$(7);:next:?time-t
```

and with strings:

```
10g$=chr$(7):t=time:for a%=1to 100:  
?g$;:next:?time-t
```

If several successive statements use the same repeated expression, put the result in a variable instead of repeating the calculation.

Finally, use multi-statement lines; they ruin program readability but speed up execution quite a lot and, at the same time, save some memory.

MICROWORD

by DON SNOAD

Microword is part of a dual-purpose word processing and database package currently available from Amsoft (Soft 07053) at £42.45 to Amstrad User Club members or £49.95 to non-members. Microword was developed by Saxon Computing and was originally marketed by Saxon as Flexiwrite. (Saxon's current version of Flexiwrite is restricted to the PCW computers).

Microword offers a 7-option main menu and a 16-option print parameter menu. For document processing, there are 15 cursor movement controls and 22 editing commands plus 20 text-embedded dot commands. There are 4 different document saving options, a printer configuration file (if you can access it) and, on the CPC6128, 7 of the 11 function keys are programmed with a mixture of housekeeping, editing and print commands. There is also a help menu, data-merge and automatic back-up facilities and a multiple-file print feature. The usual on-screen status window shows line and column numbers, margin and tab indicators, insert/overwrite/indent mode status, unused file space (expressed as a percentage) and the name of the file currently loaded from disc; caps lock status and column width settings are not shown. Page formatting does not extend beyond 75 columns and there is no spell-check program or dictionary. Although there are two primary menus, the program is mainly command driven. The maximum file size is approx 73K. It is essential to use a working copy of Microword using a copying procedure unique to the program; the program will not run from the master disc.

Microword can most easily be described as a mini-edition of Wordstar insofar as many (but not all) of the commands are akin to those in Wordstar. Microword runs in the CP/M+ environment and can be used on either a CPC or a PCW; both versions are supplied on the same disc. However, there are differences between the two versions. Few problems should be experienced on the PCW, especially if the PCW printer is the only printer used. However on the CPC6128, because of the smaller memory and freedom of choice of printer, Microword imposes a few constraints which may not be acceptable to the serious word pro user. For example, for reasons which I haven't yet discovered (and on which Amstrad has declined to comment), the printer configuration files should but do not transfer from the master disc to a working copydisc, and without those files problems will undoubtedly arise in configuring a non-Epson compatible printer. I found it impossible to configure Microword to drive my daisy-wheel printer, which persisted in stopping every half page with an 'LPT not ready' message displayed on screen; since this message relates to Baud rate which in turn is relevant only to serial-connected hardware (my printer is parallel-connected), I couldn't then and still haven't found the cause of the malfunction.

It is necessary for a program disc to be in drive A for most of the time, since Microword will not run from memory (curiously, the original Flexiwrite program was entirely memory resident); this in turn means that a data disc can replace the program disc only whilst saving or loading a document and this may create difficulties when calling for a disc directory. One also needs to be meticulously

careful about disc swapping because, should a disc directory command inadvertently be given when there is no disc in the drive, the program will abort and return the screen to the CPM prompt.

There are other problems too. One of them arises from a bug in the program that more often than not inhibits the RH margin justification feature. Margin justification could be obtained on some occasions via the print menu, but no response whatever could be obtained from the text-embedded command, .RJ ON, and as a result it proved impossible to obtain on-screen formatting. In addition, the program behaved erratically whilst an external ROMboard was connected (even though not initialised) and other problems were experienced when using a CPM working disc which had an enhancement utility (i.e. Write Hand Man) called via the Profile.Sub file. With the ROMboard physically disconnected and using a 'clean' CPM working disc, the justification command still refused to work and no response could be obtained from the reform paragraph command, CTRL KR. Other program features also misbehaved (e.g. a phrase search command, CTRL QF, caused the entire document to be erased from memory) and some cursor movements were very erratic (pressing the RETURN key at the end of a line often caused the cursor to move to the end rather than the beginning of the next line). On two occasions, Amstrad's technical staff suggested that all these problems were being caused by 'informal or illegal setkeys'; this has been proved to be not the case, but Amstrad still refuses to concede that any fault exists.

Another difficulty is that although the program utilises a number of Wordstar commands, some of the commands have a different meaning in Microword. For example, in Wordstar the CTRL KE command is used to rename a file, whereas in Microword the same command will execute a sort in column descending order.

Although it is possible to incorporate the necessary loading commands in a Profile.Sub file to achieve auto start-up, it is not possible to use Microword in conjunction with utilities such as Write Hand Man or Smartkey. Whether this is due to computer memory limitations or to inefficient program overlaying I cannot say. Either way, my experience of Microword indicates that it is unwise to attempt to use the program with any additional enhancements.

A major problem for the newcomer is the user manual published by Amstrad which has far too many errors; Amstrad has also published an addendum which they say gives further guidance on the use of Microword, but the addendum is not supplied with the manual (why not, Mr Sugar?). Having eventually obtained a copy, I was not impressed since it gave no clue to the problems I've experienced with Microword.

In my view Microword is not a particularly efficient program and does not compare favourably with other word processors running in the CP/M environment. Microword occupies at least 95K of disc space compared with 78K for Wordstar and 62K for Newword both of which are far superior to Microword. Whilst the program may have less constraints on a PCW than it does on a CPC, Microword in my judgement is not a good choice.

Since writing the Microword review, Amstrad has conceded that bugs inhibit some features of the program. - DS

REVIEW

THE CENTROX OPERATING SYSTEM

by
Andrew Cope

INTRODUCTION

Centrox is an alternative operating system to CP/M and is available exclusively to UAUG members from the UAUG Public Domain Software Librarian.

The major differences in operation between CP/M and Centrox is that the latter is written in Basic and supports a different file structure.

Centrox comprises several programs on one disk. A 50-page user-manual is also available on disk from the PD Library or, if you prefer, a hard copy is available from me on receipt of a large SAE. The purpose of this article is to introduce Centrox and to provide an overview of the system.

FILE STRUCTURE

Centrox, like CP/M, allows the user to divide the disk into fifteen usable areas. However, with Centrox, each area has a specific position with respect to other areas, thereby allowing the user to set up a structure which is similar to a filing cabinet. Users of RODOS or IBM PCs will recognise the system used as it is common with larger computers.

OPERATION

Basically, Centrox works in much the same way as CP/M inasmuch as some of the more common commands form part of the operating system code whilst the larger programs are loaded from disk only when needed. Centrox also offers several features which are not available under CP/M.

Command Aliasing

Centrox can be instructed to replace certain command words or phrases with pre-programmed alternatives. As an example, the command TYPE could be converted to CAT to enable the user to employ the CP/M TYPE command instead of the Centrox CAT command.

Command Line Recall

Centrox automatically remembers the last twenty command lines and can be asked to repeat them on demand. Each command line is given a number and any line can be recalled either by number or by specifying the first few characters.

Time and Date

Centrox keeps track of the time and date. By utilising a routine published in Amstrad Action, Centrox can work out the name of the day for any given date. The real time is maintained via interrupts and, at midnight, causes the date to be advanced.

TRANSIENT PROGRAMS

Centrox provides facilities for text formatting, editing and compiling.

FORMAT COMMAND

The command FORMAT takes an unprepared source file and formats it into a finished document according to the directives in the text file. Some of the available options are summarised under the following six sub-headings.

Chapter and Section Headings

FORMAT will automatically underline both types of headings and will develop a List of Contents; in addition, section headings will be numbered automatically.

Text Justifying

FORMAT will justify the text between the margins specified in the file. Since text justification is executed during printing, the margin settings can be altered to any value prior to printing.

Page Numbering

FORMAT will deal with page breaks in one of three ways. It can jump over the break, wait for the user to insert a new sheet or ignore the page break. Page numbers are handled automatically. Again, the page length and page numbering can be altered to any values prior to printing.

VDU Output

FORMAT outputs the result to the screen whilst it functions. One of the command modes forces FORMAT to use WYSIWYG output to mimic the various typefaces on the screen.

Vertical Centre-ing

Using a simple command, complete blocks of text can be positioned in the centre of a page (e.g. for Contents pages).

General Operations

FORMAT can insert the time, date or even a "run time" comment into the text and will justify the result. Several files can be formatted sequentially, with optional formfeed after each file is printed. FORMAT reads printer control character definitions from a file specified on the command line, so several files can be kept for different printers.

TEXT EDITOR (CTX)

CTX is a fairly fast and powerful text editor. Although lacking in block move operations, it is quite adequate for general use. Centrox commands can be invoked from within the text editor.

COMPILER (COMP)

COMP compiles a structured version of BASIC into BASIC OBJECT CODE.

The latest version of Centrox (nearing completion) will generate stand-alone code and will provide two additional features, which are:

- (i) CASE statement as in PASCAL and C;
- (ii) Procedures and local variables.

OTHER USERS

Although of limited value for most users, Centrox can support more than one user per computer. Each user can be given their own data disk which is password protected, and all users share a system disk. Electronic mail can easily be sent between users.

HARDWARE REQUIREMENTS

Like CP/M, Centrox can be used on a single drive system but will take full advantage of a dual drive system.

Since writing this article, a few more alterations have been made to Centrox. Rather than bother our PD Librarian with yet another update, the new information is given below. When members obtain Centrox, would members themselves kindly alter the CTX.COM file on the Centrox disk as follows:

At end of line 370, add :GOSUB 1070

In line 380, change co% to cp%

At the start of line 1440, add er\$="":

TYPE IN

```

10 REM ON-SCREEN DIGITAL CLOCK (save as DIGCLOCK.BAS)
20 INK 0,1
30 INK 1,24
40 PAPER 0
50 PEN 1
60 BORDER 1
70 MODE 1
80 ON BREAK GOSUB 560
90 a$(0)="Hour (0 - 23)"
100 a$(1)="Minute (0 - 59)"
110 a$(2)="Second (0 - 59)"
120 FOR n=0 TO 2
130 : IF n=0 THEN mx=23 ELSE mx=59
140 : tm(n)=-1
150 : GOSUB 460
160 NEXT
170 MODE 0
180 LOCATE 6,7
190 PRINT"....."
200 LOCATE 6,12
210 PRINT"....."
220 start=INT(TIME/300)
230 WHILE tm(0)<24
240 : WHILE tm(1)<60
250 : sec=tm(2)
260 : WHILE tm(2)<60
270 : tm(2)=sec+INT(TIME/300)-start
280 : LOCATE 6,10
290 : PRINT": ";
300 : FOR n=0 TO 2
310 : tm$(n)=MID$(STR$(tm(n)),2)
320 : IF LEN(tm$(n))=1 THEN tm$(n)="0"+tm$(n)
330 PRINT tm$(n);": ";
340 : NEXT
350 : WEND
360 : start=start+60-sec
370 : tm(1)=tm(1)+1
380 : tm(2)=0
390 : WEND
400 : tm(0)=tm(0)+1
410 : IF tm(0)=24 THEN tm(0)=0
420 : tm(1)=0
430 WEND
440 END
450 REM SET CURRENT TIME
460 WHILE tm(n)<0 OR tm(n)>mx
470 : CLS
480 : PRINT TAB(13)"DIGITAL CLOCK"
490 : PRINT TAB(13)"+++++"
500 : LOCATE 1,6
510 : PRINT a$(n);
520 : INPUT tm(n)
530 : WEND
540 RETURN
550 REM PRESS ESC TWICE TO EXIT
560 MODE 1

```

THE STAR LC24-10 PRINTER

by
Helen Croom

Until recently I've been using a Brother HR-10 daisy-wheel printer (an excellent machine but rather slow) for final copies and a Star NL-10 for draft copies. Recently I wrote to Star with a query and, as usual, they replied by return of post. They also sent me a sample of print from their new LC24-10. I was so impressed by it that I bought one within a couple of weeks. Although the print quality is very good on the NL-10, it is in my opinion let down by its strange formation of its NLQ 'p' and 'q' (a classic case of "minding your P's and Q's", if you like).

The print quality is as good as you would expect from a 24-pin printer - no trace of dottiness and well-formed characters in all of its four fonts. These fonts (Courier, Prestige, Orator and Script, plus italics for all styles) are all available in Pica, Elite, Semi-condensed (15 cpi), condensed Pica and condensed Elite. Courier and Prestige are available in proportional pitch too.

There is also a wide range of large characters - double or treble width, double height, double width and height or quadruple width and height. These enlarged characters look really good in conjunction with the "ornament" facility which gives shadowed, outlined or outlined with shadow characters - impressive for posters or leaflets.

Particularly useful to CPC users is the fact that with the control code ESC > you can send the 8th bit to the printer thus enabling you to access codes above 127.

The LC24-10 is Epson LQ800 or IBM Proprinter X24 compatible (selected by DIP switch). Whilst on the subject of DIP switches, there are two banks of eight switches which are in a readily accessible position inside the main body of the printer, beneath the front cover. I find this a more satisfactory arrangement than having them at the back as that requires you to either turn the printer right around (thus scattering numerous pieces of paper to the floor) or balancing the printer on its front edge and trying to work out which is which from an upside-down position. Lots of things are selectable by DIP switch.

The first five on bank one relate to paper size, margins etc. Number 6 selects Epson or IBM mode and No.7 is a very useful one which enables you to select various character set options. For instance, if you have selected the Epson mode you can choose with this switch whether you have italics in the standard character set or by setting it to OFF you will get the graphic characters, international characters and mathematical symbols of the IBM character set. On the other hand, if you selected the IBM mode with switch 6, setting No.7 to OFF selects character set #1, for computers with a 7-bit interface.

The second bank of DIP switches lets you use the 7k printer buffer for download characters,

select International character sets and the default type style and pitch.

Single sheet paper loading, using the semi-automatic facility is simplicity itself; no re-aligning of paper is necessary because the printer gets it straight every time. There is also "paper parking", as on the LC-10, which allows you to leave continuous paper in-situ while using cut-sheets.

Panel operation is very simple. You can select style and pitch and specify that these shall not be overridden by software control. Page feed, top of form, forward and reverse micro-feed are all possible from the front panel and another useful function is the ability to clear the printer buffer without having to turn the printer off. One feature which I have not found particularly useful is the "Quiet Mode". This is supposed to be quieter (it makes two passes for each letter, so is slower too), but I find it difficult to detect the difference. In any event, I have not found the LC24-10 to be a particularly noisy machine, but that may be because I have become used to my daisy-wheel printer.

Stated speeds are 142 cps for draft Pica and 47 cps for letter quality Pica. These speeds are not amazingly fast for a 24-pin printer but I feel that its tremendous versatility more than makes up for this. The manual is excellent - clear and concise in "proper" English and with a good index.

Optional font cards and memory are available.

To sum up, I have no complaints at all about this printer. Star say at the back of their manuals that they welcome comments and suggestions from users and it really seems as though they have listened.

I have now decided to sell my daisy-wheel printer as the print quality of the LC24-10 is comparable and the increased speed and convenience of only needing one printer make me unlikely to use my d/w again.

Last but not least (unfortunately!), the price. I bought mine from Evesham Micros for £319 including cable, VAT and carriage. Of course, this is not the printer for the person who prints occasional listings, etc, but for anyone who needs top quality printing at good speeds and with many options I don't see how they could go wrong with the LC24-10.

Below are a few samples of the fonts offered by the LC24-10.

Courier Prestige ORATOR Script

OUTLINED SHADOWED
OUTLINE WITH SHADOW

REVIEW

MICROSCRIPT

Don Snood tests a word processor with a difference and wonders how anyone ever managed to use it.

INTRODUCTION

Microscript was developed by Intelligence (Ireland) Ltd in 1984 for the CPC464/664 computers and is still marketed by Amsoft (Ref: Soft 1010) at £49.95. The program, which runs in the CP/M 2.2 environment, is supplied on disc and comprises 8 files totalling 143K; these are:

DISC.BAS	1K	(PROGRAM LOADER)
S .SIF	4K	(SIF BACK-UP FILE)
SCRIPT.SIF	4K	(SYSTEM INFORMATION FILE)
SCRIPT.COM	31K	(MASTER EDITING PROGRAM)
SCRIPT-F.COM	21K	(FILE MANAGEMENT PROGRAM)
SCRIPT-P.COM	29K	(PRINT CONTROL PROGRAM)
SCRIPT-R.COM	33K	(REFORMAT PROGRAM)
SCRIPT-S.COM	20K	(SEARCH & REPLACE PROGRAM)

The program is a combined word processor and in-text calculator-cum-spreadsheet, and will run on the CPC6128 as well as the 464/664 computers. The program comes from the same stable as Micropen, but is unrelated to Microword, Microspread or Micrograph.

The program runs in 80-column display mode; there is no provision for 40-column display and for this reason the program is not entirely suitable for use with a colour monitor.

INSTALLATION

Microscript will not run from the distribution disc because the disc has no CP/M boot sector; it is therefore necessary to make a working copydisc using the DISKIT2 utility. I found that DISKIT2 worked perfectly well for the first copy but failed to work when I tried to make a second copy (the handbook recommends two working copies); thereafter, the only way a working copydisc could be obtained from the distribution disc was to format a blank disc as a system disc and then transfer all the program files via the PIP utility in the CP/M Plus environment (the files would not transfer using PIP under CP/M 2.2).

Microscript relies on the SCRIPT.SIF file for auto-start configuration data; the file also includes all the screen prompt texts and function call sequences. There is no information in the handbook as to whether or how the SIF file can be customised and because of it one wonders why the SIF back-up file is provided on the distribution disc.

Assuming that the system information file is intended to be customised, it is necessary to erase the SCRIPT.SIF file (the file cannot be loaded!) before loading and editing the back-up file, which then has to be saved and renamed SCRIPT.SIF. There would appear to be no reason why any aspect of customisation cannot be achieved by this method but, be warned, the handbook gives no information whatsoever about accessing or editing the system information file.

Another difficulty is the apparent lack of printer configuration facilities. If they exist, the handbook makes no mention of them. In this respect, the print menu is devoted primarily to page formatting and only one option is provided for entering a single printer control code. The menu display also includes two banks of X symbols which may have some configuration significance, but the handbook gives no clue as to their purpose or use. Having spent some hours experimenting with the print menu, in an endeavour to determine the purpose of the X symbols, I am none the wiser. The program seems to work well enough with an Epson-compatible printer, but the use of a non-Epson compatible printer is likely to be a matter for extended trial and error. The program makes provision

for bold or emphasised printing, underlining or underscore and for headers, but does not allow for footers (other than page numbering) or for subscript or superscript.

FILE CAPACITY AND STORAGE

The program files occupy 143K of disc space leaving only 26K for text files. Unfortunately, CP/M 2.2 does not behave in the same way as CP/M Plus and does not allow drive A to be used as either drive A or drive B. Therefore, although Microscript text files can be addressed to or from drive A or B, drive B must be a fitted 2nd drive. Consequently, if only one drive is available, as on a CPC664/6128, text files must be limited to no more than 13K to allow for BAK files; the only alternative to this is to replace the program working disc with a data disc whenever larger files or a number of files are to be saved. However, a problem arises in that text files generated by Microscript cannot be saved to a "virgin" data disc in drive A; before a disc in drive A can accept text files from Microscript, certain program files must be present on the data disc. The handbook states that all program files must be present, which brings us back to square one; but, with careful planning, only certain files are essential; the essential files are SCRIPT.COM and SCRIPT-F.COM and will occupy 52K of disc space (if files are to be printed, then SCRIPT-P.COM must also be present on the data disc taking up a further 29K of space). If a 2nd drive is fitted, data discs used in drive B do not need to be "primed" with program files. The user handbook gives no indication of maximum text file size.

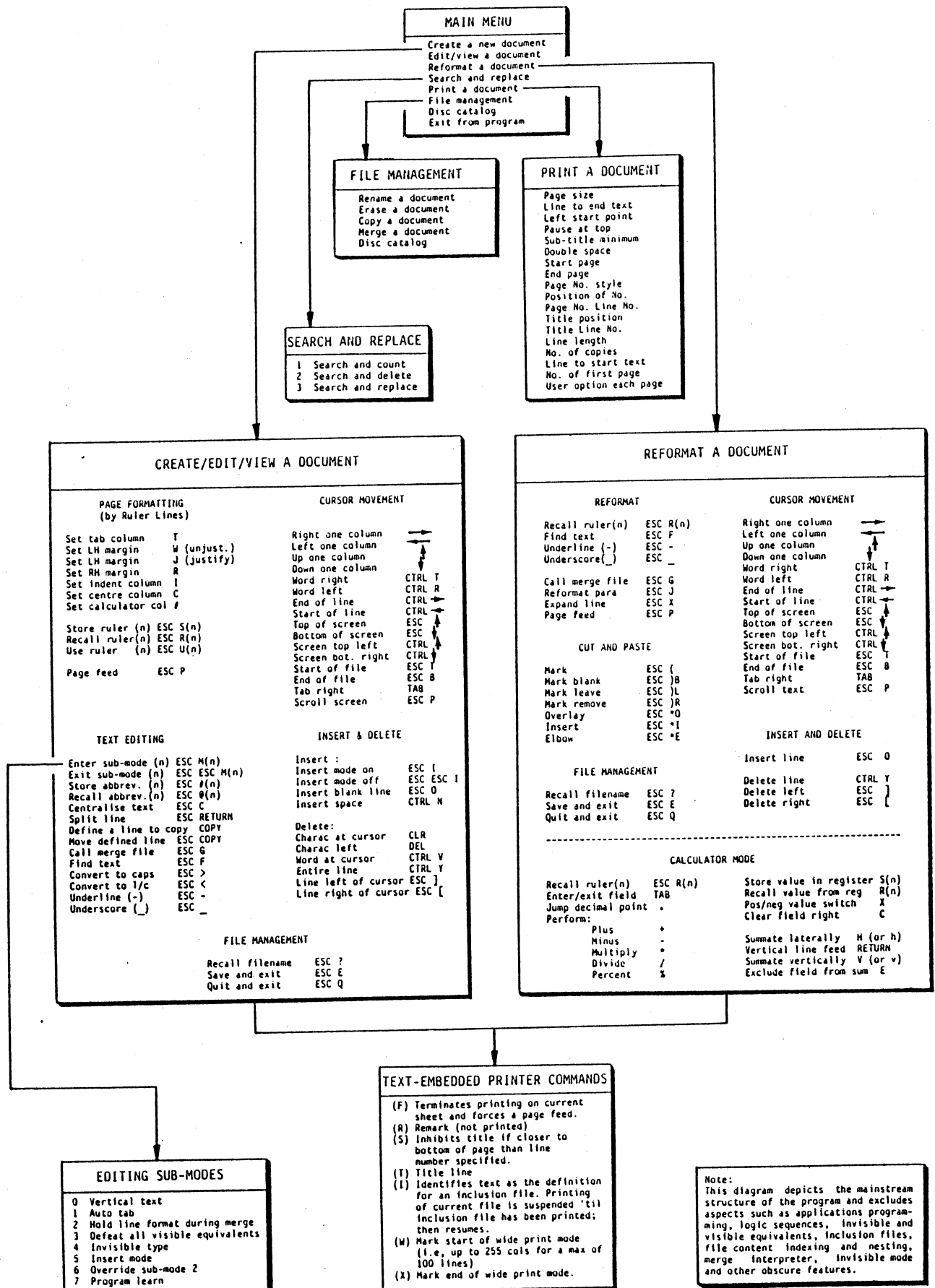
In practical terms, Microscript is intended to be used with a 2nd disc drive fitted; without a 2nd drive, adequate text file management is difficult and the program becomes awkward to use.

There are, unfortunately, numerous undesirable aspects of Microscript. One example is the ESC Q command which, according to the handbook, quits the document in memory without saving it to disc; in fact the document will be saved to disc as EDITWORK.*** regardless of the original filename. If the ESC Q command is repeated in a different mode, an additional file is saved to disc as EDITINP.***. Not only will these files occupy valuable disc space unnecessarily but the new files are entirely superfluous since they cannot be re-loaded from disc and any attempt to do so by re-naming them using a valid file attribute will cause the program to lock-up.

Other sub-standard aspects of Microscript include its inability to accept text files from other word processors (not even ASCII files) and the fact that the disc catalog command, provided on both the main and the file management menus, shows only the file names and does not display the file sizes or the free disc space.

WORD PROCESSING

Once loaded, the program displays the 8-option main menu; selecting either option C or E will invoke the create/edit text mode in which all initial operations will be conducted. In this mode, approx. 52 command functions are available to the user. The text entry window offers 80 columns by 24 lines. The page width can be extended to 255 columns for a maximum of 100 lines but, since the cursor cannot be moved beyond column 80 and the screen does not scroll horizontally, it is difficult to foresee how this wide print mode can be used.



MICROSCRIPT COMMAND STRUCTURE SUMMARY
(command function numbers have been omitted)

REVIEW

On entering the create/edit text mode, the initial screen display can be disconcerting since it is entirely blank but for the cursor. The basic page formatting parameters are embedded in ruler lines which can be preset to define margin and tab positions, paragraph indentation and text justification; ruler lines can be defined or changed at any time. A maximum of 9 rulers can be stored in memory and recalled whenever required; a 10th memory (numbered 0) holds the ruler being used. There is no limit to the number of rulers used in any single document, but it is essential for a suitable ruler to be called from memory and activated before text is entered, otherwise there will be no control over the page format. A ruler line is also used to invoke the program's in-text calculator, using embedded # symbols.

Apart from the ruler line, there is no command data display and no status window; consequently, there is no on-screen confirmation of edit command status, bytes used/free, cursor column or line numbers or the current page number. This lack of on-screen information is a distinct disadvantage, particularly since the user will have no idea where he/she is in the document at any given time. Initially, the current filename is not displayed but this can be called to the screen by the ESC ? command (this command must not be entered before a ruler line is activated). There is no on-screen help display, no spell-check facility and no word count.

Somewhat illogically, the RH margin justification feature has to be invoked by the choice of code for the LH margin, when setting-up a ruler line. The text justification sequence is quite good and inserts space padding at the end of a line, alternating right and left in each line. This results in a balanced appearance to the finished text, with the largest proportion of extra spacing nearest the page margins.

Paragraph indentation also needs to be set as a command code on the ruler line, as does the position to which text will be centralised (?). The paragraph indentation feature, when set, needs to be used as it is intended to be used; namely, as a start paragraph indent. If it is mis-used as an indented margin (for the entire paragraph) difficulties will be encountered when editing and with paragraph re-formatting.

In the create/edit text mode, 8 sub-modes are accessible; these are:

0. VERTICAL TEXT. This sub-mode changes text entry from lateral to vertical.
1. AUTO-TAB. This sub-mode allows better control of the cursor when text indentation is continuous.
2. HOLD LINE FORMAT. This sub-mode, which can be overridden, forces incoming merged text to comply with the margin settings for the current document.
3. DEFEAT VISIBLE EQUIVALENTS. This sub-mode prevents the visible equivalents of control characters from being interpreted on screen.
4. INVISIBLE TYPE. This sub-mode is intended as an aid to the system designer.
5. INSERT MODE. This sub-mode overrides the default overwrite mode to give a conventional insert mode.
6. OVERRIDE. This option overrides sub-mode 2.
7. PROGRAM LEARN. This sub-mode automatically converts function sequences entered via the keyboard into symbolic form and is intended as an aid to developing programs.

The commands available in the create/edit text mode include most of the features common to low-budget word processors, with three exceptions. First, although a command is provided to split a line of text, there is no provision for restoring a split line after editing and this omission is not easy to overcome. Second, RH margin justification and paragraph reformatting is not possible in this mode and, third, all cut and paste operations are also excluded from this mode. The text justification, document reformatting and block manipulation facilities are available only from the reformat mode, entry to which requires that the

current file be saved to disc, the new mode selected from the main menu and the file reloaded from disc.

In reformat mode, text lines can be extended to comply with the ruler-embedded margin justification code (if set), a range of 7 cut and paste commands are available and the document can be re-formatted to suit a new ruler line. Other differences exist between the create/edit text and reformat modes; one important difference being that the latter is the sole entry route to the calculator mode. Seven text-embedded printer commands are available in either mode.

The main menu option "search and replace" is limited to 15 characters in any single search or replace operation, and this is a fairly tight restriction. There are also supposed to be 3 sub-options under 'search' but only one is operational. The search and replace facility is a separate program and therefore requires the subject file to be saved to and re-loaded from disc before the program can be run; it is additional to the 'find text' option which, because it is already available in both the create/edit text and reformat modes, is much easier and faster to use. In view of this, users may well regard the 'find text' option as an acceptable alternative; some users may even prefer to delete the search and replace program file from the working copydiscs, thereby recovering 20K of usable disc space (a distinct advantage if you are working with only one disc drive).

The file merge feature is reasonably conventional and enables one or a number of files to be merged during a file merge operation. Provided the necessary commands are embedded in the files to be merged, up to 7 files can be "nested" for merging without leaving the current document.

Another feature of Microscript, similar in concept to the CPC function key memories, is the facility for storing and recalling "abbreviations". Ten individual memories are allocated for this purpose, and each memory can be used to store text or command sequences or both. The capacity of each memory approximates to one line of text on screen; a number of memories can be linked to store or recall data that is too lengthy for a single memory.

The handbook summaries certainly whet the appetite and lead one to believe that Microscript also has the potential for more advanced work in applications programming, particularly in the areas concerning invoicing and data retrieval. However, in the absence of documented procedures, this aspect of the program can be regarded only as a challenge and much trial and error work will be needed before the full potential can be realised.

Regretably, the command response times and general performance of the word processor can only be described as sluggish, and this is aggravated by the necessity for saving and re-loading the current document each and every time any of the five program modes are entered or exited.

IN-TEXT CALCULATOR

The handbook instructions are far from explicit as to how the calculator mode is entered or used, but trial and error has shown that the required fields must first have been embedded into a ruler line whilst in the create/edit text mode; there must be no other codes on the ruler line which must be stored in memory using ESC S(n). Then, whilst still in the edit mode, position the cursor at the start of a blank line in the relevant text file, where the calculations are to be incorporated, and recall the calculator ruler line by pressing ESC R(n); then press ESC U(n). If there is any text below the calculator ruler line, the ESC 0 command should be used to open up as many blank lines as are required for the calculator entries; then save the file to disc. At the main menu, select reformat mode and re-load the text file. Once the file opens on-screen, move the cursor to the line below the calculator ruler and enter the calculator mode by using the tab key to advance the cursor to the first field marker embedded in the calculator ruler line; the tab key is also used to travel past the last field



marker to exit from the calculator. The calculator must be entered and exited line by line, using the RETURN key at the end of each line. The # symbols define the active columns in each field; whenever the cursor is in a field column, the program is in the calculator mode and the normal cursor and other control keys are inhibited.

The calculator facility is conditional upon the necessary '#' and '.' control characters having been embedded correctly in the calculator ruler line. No restriction is placed on the decimal point positions but numeric data is limited to 14 consecutive columns for each field. The tab key is pressed to progress laterally from one field to the next and a full-stop is entered to jump from the integer block to the decimal places; any one of 5 arithmetic functions (i.e. add, subtract, multiply, divide and percentage) can be performed on the current field before proceeding to the next. Care should be exercised to avoid overfilling a defined field as this may cause loss of data; in this regard, it would seem prudent to define, for each field, as many of the 14 allocatable columns as the page margins will allow - even though all the field columns may not be used.

When more than one field has been set out, a horizontal data summation can be made; similarly, vertical summations can also be obtained. Summation sequences can include or exclude sub-totals as required.

The calculator feature includes a further 6 arithmetic routines comprising storage, recall, positive/negative switching, sub-totalling, field clearance and auto-update. Four of the 6 routines relate to the contents of a specific field and include 10 numeric storage registers for calculator programming or further data manipulation.

Since it is necessary to enter volume text in the create/edit text mode and the calculator can be used only whilst in the reformat mode, the document layout will need to be carefully planned to accommodate the calculator entries anticipated. Should the calculator entries overrun the number of lines allocated, additional blank lines must be inserted by using the ESC O command when in reformat mode; this is essential to avoid overwriting existing text.

Alternatively, a template or dummy text file could be created in edit mode (with the necessary calculator ruler line embedded), called from disc to the screen in reformat mode, and re-saved to disc after the required calculator operations have been performed; the file thus created could be merged into any text file subsequently generated. This alternative is not mentioned in the handbook.

It all sounds very complicated but works quite well once the initial procedural uncertainties have been resolved. It is important to grasp the principle of defining and storing the calculator ruler line whilst in the create/edit text mode, and recalling and using it only when in the reformat mode. A calculator ruler line cannot be generated or stored whilst in the reformat mode.

OTHER FEATURES

Microscript includes an "interpreter". According to the handbook, this feature enables Microscript to be programmed to perform complex data manipulation tasks and may also be utilised to improve file merge operations by defining the required merge sequence control characters; it also provides an indexing feature to allow paragraphs, sections or random parts of a disc-stored file to be identified and accessed

individually as required. In addition, the interpreter can be programmed and used to access an entire library of disc-stored data and can be extended to include a complex hierarchy of file nesting.

All these facilities are very novel and no doubt could be put to some good use if we knew what it all meant; unfortunately, the handbook goes no further than the summaries quoted above, and no procedures are given to enable these facilities to be explored.

DOCUMENTATION

The user documentation is another aspect of Microscript that is difficult to summarise constructively. The handbook, published by Amsoft, is hard-backed, ring-bound and comprises 71 pages divided into 26 sections; it includes a contents list, an index and a command summary. Illogically, Amsoft chose to identify all the commands by function numbers which is both irritating and unnecessary, and requires the reader to cross-refer to lists to ascertain the usable commands and their parameters. In addition, a considerable amount of text is devoted to aspects such as applications programming within Microscript, logic sequences, defeating visible and invisible equivalents, goto functions, inclusion files, file content indexing, invisible mode, merge interpreter and other jargon none of which is adequately explained and which is likely to leave the reader totally mystified; the handbook even refers to the use of a hard disc, which is somewhat ambitious as the program was developed specifically for the tape-driven CPC464 computer for which a hard-disc has never been an option.

In my view, the standard of user documentation is extremely poor because it fails to provide the information needed to utilise all the features of the program. In many instances, the handbook glibly summarises the "what" but says nothing about the "how", and the reader becomes as frustrated as the donkey chasing the carrot.

Some of the procedural information simply does not match up with the program and parts of the handbook are pure wishful thinking. One gets the distinct impression that the handbook was written using the programmers target specification as the source material, and without any reference whatsoever to the program itself. In places it is so OTT that it's almost a joke, but at £49.95 the joke is literally at the buyers expense.

CONCLUSIONS

The word processor is not a very comprehensive or sophisticated module, but overall the program is quite powerful when used in conjunction with the integrated calculator-cum-minispreadsheet facility. As with most unusual or complex programs, the newcomer must rely heavily upon the accompanying documentation, but in this instance the handbook is very inadequate; consequently, the program is difficult to get to grips with, especially in those obscure areas which extend beyond the fundamental word processing and calculating functions.

If you are a materials/quantities estimator or cannot live without a mini-spreadsheet facility as an integral part of a word processor, then Microscript may be of use to you if you are very determined and have limitless patience; but most other users will be better served by a less complex and better documented program such as ASL's MATRIX, available at half the price of Microscript.

SPECIMEN RULER LINES:

W.....F.....T.....R

The ruler line above will provide 80-column text, two tabs and unjustified RH margin

.J.....T.....C.....R

The ruler line above will provide 70-column text, single tab, centralised heading and justified RH margin

.....111.11.....111.11.....111.11.....111.11.....111.11.....

The above ruler provides five calculator fields, each with two places of decimals

UPGRADING THE CPC

BY DON SNOAD

Let me tell you about an item of hardware I came across earlier this Summer. It's a box measuring 12½ x 12 x 5 inches and it contains one 5 1/4-inch TEC Type FB501 40-track single-sided half-height disk drive, a fan-cooled power supply unit, a floppy disk controller and a processor board with a Z80A chip, a character generator, 4k video RAM, a shift register for a CRT monitor and an RF modulator for a domestic TV. The power supply unit, which runs off 240V ac mains, is dual-fused and provides three 12V dc and four 5V dc outlets, and includes a noise filter. All cables and connectors are included for connecting to a keyboard and to either a domestic TV or a monochrome monitor. The unit can be optionally fitted with a half-height additional disk drive, for which all the power cables and fittings are already in-situ. The unit is superbly made of traditional materials to a standard reminiscent of the Heathkit era and rarely seen today. What is this wonderful beast you ask?

The answer is a piece of hardware marketed by Tandy and listed under catalogue number 26-3806 as a Disk/Video Interface. It was introduced in 1984 to complement the Tandy 100 series of portable computers (it could also be used with the later 200 series); the price, in 1984, was £599 ! Today, the same unit is being sold by Tandy at less than £100. So what has all this got to do with Amstrad ? Not a lot - not with Amstrad at least - but this little item of hardware is an extremely attractive proposition for us CPC users, for the following reasons.

First, it can be used almost 'as is' by 464 owners; all it needs is to sort out the connections between the unit's processor board and the 464's expansion bus. Thus, for £100 or less, you will have a disk drive, the means of connecting a colour TV or a high-resolution monitor (and a smart plinth on which to mount it) plus the option of a second disk drive.

Second, for 6128 owners, a number of options are available; these are:

1. By removing the internal processor (4 screws to remove the cover, plus 4 more to remove the board) you will immediately have a usable second disk drive and a plinth on which to stand your monitor.

2. Alternatively, the existing disk drive can be moved to the lower slot (4 screws), thereby making enough space to accommodate a ROMboard, silicon disk or memory expansion. Or the option of fitting disk drives of a larger capacity and/or using a different monitor. Even installing a modem is a perfectly viable possibility, since the integral PSU is quite capable of coping with the extra load.

Finally, all connections could be sited at the

'plinth', thereby tidying up the unsightly cabling which is one of the less favourable aspects of the CPCs.

I bought one of these units and I regard it as one of my best buys. I discarded the processor board and fitted a 3-inch disk drive in the upper slot having moved the 5 1/4-inch drive to the lower position. I installed my cannibalised versions of a 256k silicon disk and memory expansion, and I also managed to squeeze in my 4-socket ROMboard and a miniature RS232 interface. The ribbon cables exit from the front of the box, on which my monitor now stands. To the front panel I've added a ROM isolating switch plus a CPU reset switch, together with a change-over switch to select either of the two drives as drive B; a printer T-switch is also fitted to the front panel, with dual Centronics sockets fitted to the rear panel.

All in all, a very practicable and attractive arrangement, and an upgrade which I can thoroughly recommend.

Whilst on the subject of upgrading the CPC, there are a number of other options which may be of interest; these are:

1. A 64k silicon disk is basically a single ROM chip which can be removed from its PCB and re-fitted to an existing external ROMboard. This will allow the normal silicon disk casing to be discarded together with its PCB.

2. A 64k silicon disk used in conjunction with a 256k memory expansion will, whenever the memory expansion is de-initialised, produce a usable 254k silicon disk.

3. A 256k silicon disk comprises two modules, one of which is a single ROM operating system. This ROM can be re-fitted to an external ROMboard, as in (1) above, thereby reducing the number of modules flapping in the breeze on the back of your CPC.

4. A 256k silicon disk, arranged as in (3) above and used in conjunction with a 256k memory expansion will provide a usable 254k silicon disk under Amsdos but a 444k silicon disk under CP/M.

Programs that run under CP/M+ cannot utilise the 64k silicon disk, but they can take full advantage of a 256k silicon disk. Thus, suites of programs (such as Wordstar and Protext) that have a number of modules as overlay files, dictionaries, etc, can be loaded to the silicon disk, thereby enabling the entire suite of programs to be run without the usual time penalties for accessing overlays and floppy disk changing. The overall improvement in speed and general operation is noticeable and very worthwhile.

GETTING STARTED WITH

CARDBOX

BY DON SNOAD

CARDBOX is probably the only database program available that emulates the traditional card index system. Although the program is not complicated, it may not seem at all straightforward to newcomers to database programs. These notes cover the basic principles of CARDBOX and will help you to get started.

There are at least two versions of CARDBOX; the generic CPM-80 version, known as CARDBOX PLUS, and the PCW/CPC6128 version known as CARDBOX. The only obvious differences between the two versions are that CARDBOX PLUS includes a number of terminal definition files, which CARDBOX does not (because they are unnecessary), and that the sample files supplied with each version are not identical. CARDBOX and CARDBOX PLUS were developed by Business Simulations Ltd who also market the generic CPM-80 version; the PCW/CPC6128 version is marketed by Caxton Software Ltd.

The program should be prepared and loaded strictly in accordance with the details given in the user-instructions. If you have the PCW/CPC6128 version, you must use the PIP utility (not DISCKIT) to make a working copy of the master disk. If you use DISCKIT, the disk will be reformatted and in so doing will erase the entire program! If you have the generic CPM-80 version (i.e. CARDBOX PLUS), you may use any CP/M copying utility except DISCKIT.

CARDBOX is a database program enabling single-file operation of up to 65500 records. Each record can accommodate a maximum of 1400 characters in not more than 26 fields. The theoretical file capacity is about 90 Mbytes but is limited to 8 Mbytes by the inherent constraints of the CP/M operating system; in practice, the database file size will be limited by the capacity of the storage medium.

With a hard disk this could approach the maximum of 8 Mbytes, but with floppy disks the capacity will be much less. For a standard 3-inch disk, any one database file should be restricted to no more than 100 kbytes to allow for the temporary files needed for the program to function. A single 100k file would allow for 73 records of 1400 characters to be generated and stored. However, CARDBOX, like most good databases, allows considerable flexibility to be exercised by the user in the design of a record; thus, if the number of characters per record were restricted to 200, the same 100k file size would accommodate 512 records. A larger disk capacity (e.g. a double-sided high-density disk) would of course provide more storage space and therefore allow a larger file size.

Before any data can be entered, the format needs to be designed. In this respect, CARDBOX again shows its flexibility in that it not only assumes that each user will require a number of different formats, but it also imposes no major constraints upon the format designs you specify. The fields can be any length or number of lines and may be positioned anywhere on the screen; any spaces incorporated, perhaps to improve readability, will not occupy valuable disk space and there is no restriction on indexing. Any number of fields can be index designated, although there is a penalty in

that indexing takes up additional disk storage space. Another user-friendly feature is that user errors will cause the computer to BEEP, which is usually followed by an on-screen prompt.

When first creating a database, the FORMAT file must be written first and given the same name as the database. The main file will expect its default FORMAT; the file extension will default to .FMT

Once the format is specified and given a name, the database functions can be used. A database file is created as soon as the first record has been saved to disk. Once a few records have been saved, the database can be tested to ensure that formatting and structuring suit your particular purpose. The format can be modified and additional data added to existing records at any stage.

One powerful feature of CARDBOX is the way that multiple indexing can be utilised to set up search patterns to proceed through data-eliminating subsets until a particular piece of information is located. These searches can be field independent.

It is important that CARDBOX-orientated file conventions are observed. For example, when choosing the NEW option for file writing, etc, an error will be declared if a file already exists with the chosen name; similarly, when choosing the OLD option, an error will be declared if a file with the chosen name does not exist.

The program is almost entirely menu-driven with 3 Primary Functions and up to 4 Secondary Functions, any combination of which will be regarded as an operational mode. A range of commands is also provided for database manipulation whilst in any mode combination; these commands are all listed on-screen whenever they become options.

MENUS AND OPTIONS

Here is a breakdown of all the menus and options.

PRIMARY OPTION: DATABASE

Secondary Option: USE

Prompts for name of database (default extension: FIL) and enters same for normal use.

Secondary Option: ANALYSE

Prompts for output device (Disk File, Screen or Printer) and gives options for Index or Full Text cross reference information.

Secondary Option: CREATE

Creates new database with chosen filename. Declares an error if file already exists.

Secondary Option: REPAIR

Repairs a damaged database as per prompts.

REVIEW

PRIMARY OPTION: FORMAT

Secondary Option: EDIT
Edits previously defined file format.

Secondary Option: CREATE
Creates a new file format.
Declares an error if format file already exists.

PRIMARY OPTION: OPERATING SYSTEM

Secondary Option: COPY
Standard File Copy Utility.
Follow prompts.

Secondary Option: ERASE
Erases chosen disk file.
Note: Will not erase files with extension .FIL or .FMT

OPTION: AUTOSAVE on/off. During the use of a database the SAVE option will flush the working buffer to the disk file in use. This is mandatory before Quitting when AUTOSAVE is Off. With AUTOSAVE On, this task is done automatically and transparently to the user except that he/she may be asked to wait from time to time.

OPTION: FILENAME. Option to choose filename for any of the above functions. Default extensions (you must not type these) are .FIL for database files and .FMT for format files. Note that on calling a database for use, an .FMT file with the same name as the database file must exist as this is used by default.

FORMAT FILE CREATING AND EDITING

OPTION E (Full Screen Edit)

Use cursor keys to position cursor to write characters, lines, etc. when designing your format. CTRL Z and CTRL W are used together to produce Standard Cardbox Lines (they require a little practice !). You cannot overwrite an already defined field in Screen Edit.

OPTION F (Field Define and Edit)

Answer field designator prompt with a single character from A to Z. This character selects the field and determines the order (alphabetic) that data is entered into each Record. If you are creating a new format, you will then be asked to supply a two-letter field identifier which should be a mnemonic to indicate the contents of the field for your convenience while using the database.

The cursor will then be placed in the Format Editing area; use the cursor keys to position the start of the desired field and press S. Then move the cursor to the required end position (it need not be on the same line) and press E. The defined field will then be highlighted.

If you wish to include a caption within the field, use the C option to enter it. Note that it is sometimes advisable to exclude a caption from within a field and to enter it using the Screen Edit option E (e.g. fields for printing as address labels).

Choose the kind of indexing to be used with this field by pressing I. Manual indexing requires you to toggle the index feature to your choice using CTRL I during data input. Automatic indexing means that the field will be automatically indexed at

data entry time. ALL means that all words separated by spaces in a field will be individually indexed. NONE means no indexing on this field.

There are three different field display types. STANDARD fields usually occupy only one line and do not wrap around; LINE fields enable data to be entered a line at a time (after each carriage return) - useful for addresses - and WORD fields permit automatic word wrap at the end of each line. Make your choice by pressing D.

OPTION D

Option D deletes a field format definition, not the whole format.

OPTION P (Printer Format Definition)

You can set up the format for printing your reports by using this option. Option P enables control over the page size, the top margin, the left margin, the number of entries (records) per page, the number of blank lines between entries and the manner in which the computer controls form feeds. When printing single-line records, it is advisable not to define a top margin but to stipulate a smaller number of entries per page, adjusting the paper at the start accordingly.

CREATING AND USING THE DATABASE

Once inside a database, control is achieved by two-letter commands. Enter data into a new database with the command ADD. You will then be presented with each field in designator alphabetical order. Use CTRL I to index a field if it has been configured for manual indexing at format time. A line feed (ENTER) is required to terminate each line of a LINE formatted field; otherwise follow the prompts at the bottom of each screen. ADD is also used to add records to an existing database.

Duplicate will duplicate an existing record for re-editing.

EDIT enables you to edit an existing record. Both AD and ED have various control keys that are prompted at the foot of the screen.

DELETE does just that - instantly ! Use with care as deleted records cannot be recovered.

TAG tags files for future selection (refer also to SE, EX and IN).

All the above operate on the current record; i.e. the one you see on the screen.

SELECT, INCLUDE and EXCLUDE. These are record selection commands which enable you to sift through the main database prior to printing, writing to other disk files or merely for viewing. They work roughly as you would expect and when used without MASK, operate on Indexed Fields only. After entering the command, you are given the option of naming a particular Indexed Field to select on (if none is selected, the program searches all indexed fields), followed by /, # or =. The / expects "words" to follow (these may, if required, contain the wildcards described at the foot of the screen); the # expects a range of numbers as indicated; the = operates either on all tagged records or on a selection which have been temporarily saved using the KEEp command.

The foregoing selection commands may all be preceded by the command MASK; this has the effect

of searching the included records for a character match without reference to the index. Obviously, this is a time-consuming function, but will be successful if careful choice of mask characters and fields is made. It is prudent to straddle the mask characters with wild cards.

Examples: MA SE AD/+SOUTHAMPTON+ selects records whose AD fields contain the string SOUTHAMPTON.

MA SE/+CONFUSED+ searches all fields of all active records to match CONFUSED.

You can combine all these selection commands to as complicated a level as you require. If you make an error in a selection, or for any reason need to go back one level of selection, use the command BACK. The command CLEAR clears out all selections and returns to the whole database. The command HISTORY lists the progress of all the current selections.

The TAG command is a block tag utility. You can tag all the currently selected records, untag them or clear all the tags from the database.

The KEEP command saves the current selection of records to a temporary variable name of your choice which can be used to recall these selections during other selection procedures.

The SAVE command is used only when the AUTOSAVE option is toggled OFF when entering the database. In this event, SAVE is mandatory before Quitting to flush the working buffer to the .FIL file otherwise data will be lost.

The QUIT command returns the user to the initial option page of CARDBOX.

PRINTING AND FORMATTING

The PRINT command has two options. By toggling TO, you can direct output either to a file for future printing or directly to a printer. If the former is chosen, you will be asked for an output filename and whether it is a NEW or an OLD file (see earlier discussion). You also have a choice of modes; these are: single page, continuous pages or unformatted. You can choose the character used to draw lines (defined at format time). You can start printing at the beginning of the selection or from the currently displayed record. You can sequence on any of the indexed fields (sequencing is done in ASCII order).

The command FORMAT enables you to change the format file to another prepared file (e.g. a file for address label printing). Any number of format files can be prepared for a given database provided that one of them has the same name as the database for defaulting.

DISK FILE WRITING

The command WRITE enables various options for writing disk files. You have the NEW/OLD and sequencing options already discussed, plus a MODE option. The MODE option needs to be explained. Four modes are available; these are: INTERNAL, EXTERNAL with no flags, EXTERNAL with flags, and WORDSTAR.

INTERNAL: This generates a file which can be read back into CARDBOX with the READ command. This is not the same as the .FIL file as used by the database but has a more compact format with simple delimiters. Note that this is the only format that can be READ whilst inside the database. The delimiters are as follows:

Each field within a record is delimited with a OOH

followed by a number 01H to 1AH, except for the first field of the file where the OOH is omitted. The numbers 01H to 1AH correspond to the designator letters A to Z used at format time.

Lines within a LINE formatted field are delimited by a 7FH.

Records are delimited by a further OOH so that the start of a record may appear as 00 00 01. Note that records in an INTERNAL mode file are not numbered but are loaded sequentially. This enables the user to re-order a randomly-entered database by WRITING it to an INTERNAL file using the required sequencing option, then re-READING it to a new database.

The end of file marker is three OOH (i.e. 00 00 00)

EXTERNAL, NO FLAGS: This is the nearest file to plain ASCII in that it really does consist only of printable ASCII characters. The delimiters are as follows:

Each field in a record starts with the character A to Z (as formatted) followed by a colon. Each field ends with a comma, followed by a Line Feed and Carriage Return (ODH OAH).

Lines within a LINE formatted field start with a space followed by a colon and end with a comma, a Line Feed and a Carriage Return.

Records end with a second Line Feed/Carriage Return pair.

The end of file marker is 1AH.

EXTERNAL, WITH FLAGS: This format is identical to the above except that any characters which are indexed have their High Bit set to enable highlighting.

WORDSTAR: This mode allows files to be written to disk in a format which can be utilised by Wordstar or any similar word processor. Contrary to reviews published elsewhere, this feature of CARDBOX does not require any external utility or conversion program; the feature is called into use via the M option until the on-screen display confirms that M = [WS], then select option S to confirm START = [BEGINNING], then select option O and enter your chosen output filename. Press ENTER, then ESC, then G and the Wordstar-compatible file will be written to disk.

The delimiters are as follows:

Each field starts with a double quote and ends with a comma and double quote. A comma is used between each field.

Lines within LINE formatted fields are treated as separate fields.

Each record ends with a Line Feed and a Carriage Return (ODH OAH).

The end of file marker is 1AH.

CARDBOX also provides facilities for label printing and exporting data to other programs (including mail merging); in addition, it has the ability to salvage corrupted files and the search facility allows it to be used for a variety of sophisticated applications. The lack of password protection is not a real disadvantage unless such protection is necessary to comply with the Data Protection Act.

Apart from a wide range of commercial applications, an obvious use for CARDBOX is the detailed indexing of floppy disk libraries and magazine articles.

REVIEW

AXIS

A Modular Communications System for the CPC 6128

Supplier: Monflair Ltd.
P.O.Box 1008,
Enfield,
Middx. EN1 1DU.

Price: £24.99

A Review by Malcolm Maddock

There is very little communications software for the CPC range of computers which offers anything other than the basic facilities to log on to a remote system, save and print frames of text, and load or view frames of text off-line. There are, though, two pieces of software, both very reasonably priced, which can do much more. One is the CAGE Rom - this can be used on any CPC and was written by Ian Hoare and Dave Gorski who are two of the mainstays of "Amsters Cage", the area for CPC users on Micronet. For this, of course, you will also need a romboard and the software is naturally geared mostly towards Prestel/Micronet use. As I don't have a CAGE Rom myself (yet !) and have only seen demonstrations of it I can't really say what are its strengths and weaknesses, although many people I correspond with on Micronet swear by it (and, occasionally, at it !). The other good piece of communications software is AXIS - a disc-based system which runs under CP/M+ and can therefore only run on the 6128 (or, of course, a 464 with a 6128 chip, 64K ram pack and CP/M+ system disc).

AXIS is described as a modular communications system. What this means is that the program is written as a series of modules which are called from a kernel program. The beauty of this is that as the communications environment changes or more users' needs are identified, further modules can easily be added or existing ones modified without the need to rewrite most of the program.

So what does AXIS have to offer over and above the standard features ? Quite a lot, certainly if the majority of your time is spent logged on to Micronet. First, there is its unique way of storing mailbox (MBX) and information frames. Most software currently on the market asks you for a filename and then saves that frame on disc as a 1K file. The result of this is that you can only save 64 frames per disc side (the maximum number of disc directory entries) leaving you with 114K of unused and unusable space. AXIS on the other hand creates a single file (one for mail and one for information frames) into which all your saved frames go. So, with a blank disc you can save 170 frames on each side of a disc - an elegantly simple solution to the disc directory limitation. This way of saving frames also links up with two other unique features of AXIS.

The first of these is the MAILMAN module of the suite. In this section you can, amongst other things, view and print out any of the MBXs in your received mail file. To do this you view the Directory of Received Mail kept by the file and then ask to see the appropriate MBX. So far nothing new. But as the Directory saves the name of the sender, his/her MBX number, and the date and time of the MBX, you can request a selective view of the Directory - for instance, you can request a list of all the MBXs in the file sent to you by Jo Bloggs or by MBX Account No. 123456789. Also in this module you can create and maintain a list of the names and MBX numbers of all the people you normally correspond with. This file is saved on disc. Then, when you are on-line and want to send a MBX to someone on your list, instead of having to type in the usual 9-digit MBX number, you merely have to type in (for example) "jo" (for Jo Bloggs) and AXIS will automatically transmit his MBX number.

One absolutely unique feature of AXIS is the facility to create your own miniature Prestel-type microbase. This is done by using the other major off-line module - the FRAME MANAGER. To set up a microbase you must first create your own front page before saving any other information frames on the disc - from this front page you will then be able to get to any other information frame saved in the file by the same sort of routing process as is used on Prestel. It would take too long to explain how this is done here but the process is clearly explained in the 59-page user manual and is easy to pick up. Broadly, there are three main sections to this module which you will need to use to set up your own microbase. First you will need to be able to see the numbers of the frames stored in the file by viewing the Directory of Stored Frames (each information frame on Prestel has its own unique no.). Then, armed with the frame numbers, you can edit frames first if you wish, using the Frame Editor, and finally using the Frame Linkage Editor to link the frames together. At the end of the day you can produce your own microbase of up to 170 frames - just like a mini-Prestel. This is a major, useful and unique facility which has many uses, e.g. for trade displays or educational purposes or just to save a lot of on-line time which is what I mostly use it for! For instance, I have one microbase which has sections on hints and tips, reviews, articles, etc. for the CPC and another one which contains useful general information such as up-to-date train timetables. In each

case the frame is stored while I am on-line (which takes a couple of seconds) and then edited and linked later when off-line. (AXIS even saves all the Prestel routes associated with each frame so that there is very little extra linking to do.) I can then browse through the frames, study them and print them out at my leisure, all off-line which, since the recent introduction of time charges by Micronet, saves a small fortune!

Two other very useful, though not unique, facilities which AXIS has are first the ability to prepare mail off-line (using an ordinary word-processing package such as "Protext" or "Tasword") and then transmit that text file while on-line. AXIS will automatically reformat the text to fit the standard "page 77" 40 column by 13 line frame size and if your text exceeds one frame, the program will automatically type the word "continued....", send the frame, call up the MBX again and continue sending the text. Secondly, AXIS will detect whether teletype software you are down-loading is compacted or not and, if it is, will automatically decompact it before saving it to disc so that it is immediately ready to run.

Finally on the advantages side, to get AXIS to run at all you must first set up a profile or series of profiles using a preliminary module called AXISGEN. This may not sound like an advantage but what each profile does is instruct the main program in all the relevant protocols for each remote system you want to connect to. In addition, the program which creates the profiles allows you to enter the phone number for that system and your i.d. number and any password. Then, when you want to connect to a system, you merely run AXIS plus the appropriate profile name: (if you connect to one system a lot - e.g. Micronet - you can define the profile for that as the default profile so that running AXIS without a profile name will automatically load that profile). If you have an autodial modem, the program will call up the system for you and when it answers will automatically send your i.d. number and password unless you request AXIS not to do so. All this saves a lot of time in getting on-line. The profiles also allow you to specify which drives will be the default drives for the mail and frame files. It is possible, for instance, to use drive A for mail and drive B for frames because all the AXIS modules are loaded into memory at the outset and remain constantly in memory, use being made of the extra 64K memory of the 6128. This too saves a lot of time in reducing disc access to a minimum.

So much for the advantages - what of the disadvantages? Well, there are some. First, because of the complex system of interrupts the program uses, it does unfortunately occasionally crash and revert to the CP/M prompt for no apparent reason. This can be particularly frustrating if you are near the end of downloading a long piece of teletype software (as I was recently when this happened) because you then have to start all over again and that is no joke with the new Micronet time charges! However, I

am assured by the author of the program that he has sorted out this bug and that a new version of AXIS, due out in September, should be free from it.

I also have a few criticisms to make of the MBX facilities. First, when it comes to saving MBX frames, there are some MBX which AXIS does not recognise so that your only alternative is to print them out. (Equally there are certain types of information frames - notably dynamic ones - which unfortunately cannot be saved.) Again, though, I understand that both these defects will be remedied in the new version. Another drawback is that the automatic sending of mail prepared off-line is slow - if you are as quick a typist as I am you will find that you can type each frame about 30 seconds faster than AXIS can send it from a pre-prepared file. I gather that the author can do nothing about this although I should point out that for slow to average typists transmission is quicker than typing on-line.

One frustrating omission from the program is not being able to get a printout of the Stored Frames Directory which means that, if you are going to use the Frame Linkage Editor to create part of your microbase, you have to write down all the relevant frame numbers by hand. (This defect MAY be remedied in the new version.)

Finally, three other features which AXIS lacks which would have been useful are: (1) a clock on the status line, showing elapsed time since going on-line - very important in these days of higher on-line time charges; (2) the ability to save frames in ASCII format so that you can load them into a word-processor and edit them etc. there; and (3) the facility to create FRAMES off-line for later uploading.

So far, I have only basically dwelt on the viewdata emulator part of the program. The other part (scrolling ASCII for use with, e.g., Telecom Gold or ordinary bulletin boards) is a very standard comms package with just one or two useful extras namely an on-line clock and alarm function and, again, the ability to upload text files prepared off-line. However, as this part is additional to the viewdata part and provided that your main interest is in viewdata comms, then you can't grumble.

Let me end on a more upbeat note and return to what is promised for the immediate future and is possible because of the advantages of the modular construction. I gather that a new module is nearing completion which will record the on-line time you spend on each session, record any frame charges and generate an itemised printout so that you can check your (horrendously high!) bill when it arrives. Also, as I have mentioned, the main modules are being rewritten to make them even better. These upgrades will be available at a nominal extra charge to existing AXIS owners - and there is no need even to send your disc back if you are a member of Micronet as you will be able to download the new versions direct.

All in all, then, AXIS is (and will be even more so when the bugs and defects mentioned above have been sorted out) an excellent comms package with many sophisticated and some totally unique features and facilities. At £24.99 it is highly recommended.

Alex Aird of Chelmsley Wood, Birmingham, writes:

"I would like to add my own comments to the answers you gave in the last issue.

To tell someone to use only one disc drive when using Newsweep is daft. Newsweep was written for users with more than one disc drive and is of limited use on a single drive system because of the large number of disc swaps involved.

When copying or unsqueezing Newsweep gives a prompt "Copy to Drive/User" so all you have to do is press B: and assuming you are logged on to drive A: then the file gets copied to B:

Newsweep can also delete files even when they are read only; just press d when the cursor is alongside the filename and y to confirm. SET.COM can also be used to set files to read/write status prior to erasing. Use HELP.COM to find out how.

Newsweep is even easier to use when you need to set files to read/write status. Try this -

```
W tag what?
*.
Y which flags
press space then enter
```

Now all files on the disc are read/write and can be erased.

The 12v plug does not power a cassette deck so far as I know. I am not too sure though as my 464 monitor doesn't have a socket for a 12v lead.

Although the Z80A runs at 4 MHz the operating system allows access to memory only on micro second boundaries and this effectively slows the clock speed down to approx 3.3 MHz.

Regarding the request for a list of call addresses, the place to find them is the Firmware Manual otherwise known as SOFT 968. As there are 230 addresses on a 464 and more on a 664 and more still on the 6128 so any list in a magazine could not give anything other than the barest description. Anyway the majority are only accessible from machine code and if anyone is interested in writing machine code then SOFT 968 is an essential purchase.

Why have a knock at WACCI in your PD section? They charge £6.50 for Scrivener and some others sure, but you charge £3.50 for a disc full of PD software so it isn't exactly free. By all means shout out loud that CPC USER provides PD software cheaper, but free?

Regarding the keys.wp program for Pocket Wordstar. My copy came with just such a program so why the listing and why the help tables, haven't you got a manual? I can't say that I have tried it but wouldn't setkeys keys.ccp reset the keyboard instead of resetting the computer?

Despite my criticisms I enjoy reading CPC USER and I expect I shall subscribe again when the time comes. By the way do you need any help to expand the programming section. I have written a few programs and I would like to help.

Here's a couple of programs that you may find interesting. Put them in the library. I would appreciate it if you could put PD3/2 and PD3/5 on this disc when you send it back.

This is the way I get a disc catalogue to the printer. It simply swaps the firmware entries for printing to screen with the routine for sending a character to the printer. You can always send some control codes or headings to the printer as well if you like. By setting different modes you get different width listings.

```
10 rem cat#8 by Alex Aird
20 a=PEEK(&BB5B):b=PEEK(&BB5C)
30 c=PEEK(&BD2C):d=PEEK(&BD2D)
40 POKE &BB5B,c:POKE &BB5C,d
50 CAT
60 POKE &BB5B,a:POKE &BB5C,b
70 CAT
```

The following program is for reading and writing sectors from and to a disc. The rem statements explain the program. It is a part of a utility ROM that I am writing just now. You might like to use it as a listing.

```
10 REM copyright Alex Aird 1988
20 REM originally written to run in ROM
30 REM hence the use of the IY register
40 REM read and write disc sectors
50 REM call &A000,[drive],address,track,
   sector to read a sector
60 REM call &A00A,[drive],address,track,
   sector to write a sector
70 REM drive is optional use 0 for A: or 1
   for B:
80 REM the program defaults to drive A:
90 REM address is the address where to stick
   the &200 bytes of data
100 REM read from disc or to be written to
   disc
110 REM track is the track number 0 to 41
120 REM sector is the sector number
130 REM &c1 to &c9 is data format
140 REM &41 to &49 is system or vendor
   format
150 REM it will read other formats providing
   log base2 (sector size)=2
160 REM write your own disc copier with it!
170 REM or write your own disc sector editor
175 MEMORY &9FFF
180 FOR a=&A000 TO &A000+146
190 READ b$
200 POKE a,VAL("&"+b$)
210 NEXT
220 END
230 REM save"readwrit.bin",b,&9000,&92
1000 data FD,21,8B,A0,FD,36,00,84,18,0A,FD,
   21,8B,A0,FD,36
1010 data 00,85,18,00,CD,4A,A0,FE,03,28,10,
   FE,04,C2,65,A0
1020 data DD,7E,06,FE,02,D2,65,A0,5F,18,02,
   1E,00,DD,4E,00
1030 data DD,56,02,DD,6E,04,DD,66,05,E5,D5,
   FD,E5,E1,11,01
1040 data 00,19,E5,DD,E1,D1,E1,DD,E9,C9,D5,
   E5,C5,F5,FD,E5
1050 data E1,CD,D4,BC,D2,69,A0,FD,75,05,FD,
   74,06,FD,71,07
1060 data F1,C1,E1,D1,C9,3E,05,18,04,3E,1C,
   18,00,F5,0E,00
1070 data CD,15,B9,7C,FE,02,28,0F,FE,01,28,
   09,FE,00,28,00
1080 data F1,5F,D7,94,0A,F1,C9,F1,D7,55,0B,
   00,DF,90,A0,C9
1090 data 00,00,00
```

After running the previous program run the

following one to do the actual copying.

```

10 'Basic disc copier by Alex Aird
20 CLS
30 FOR t=0 TO 32 STEP 8
40 buffer=&1000
50 LOCATE 1,1:PRINT"Insert disc to READ "
60 WHILE INKEY$<>"" :WEND:WHILE INKEY$="" :WEND
70 GOSUB 140
80 buffer=&1000
90 LOCATE 1,1:PRINT"Insert disc to WRITE"
100 WHILE INKEY$<>"" :WEND:WHILE INKEY$="" :
    WEND
110 GOSUB 220
120 NEXT
130 CAT:END
140 FOR track=t TO t+7
150 LOCATE 1,1:PRINT"Reading Track    "track
160 IF track=40 THEN RETURN
170 FOR sector=&C1 TO &C9
180 CALL &A000,buffer,track,sector
190 buffer=buffer+&200
200 NEXT:NEXT
210 RETURN
220 FOR track=t TO t+7
230 LOCATE 1,1:PRINT"Writing Track    "track
240 IF track=40 THEN RETURN
250 FOR sector=&C1 TO &C9
260 CALL &A00A,buffer,track,sector
270 buffer=buffer+&200
280 NEXT:NEXT
290 RETURN

```

It is possible to write a basic program to copy almost any disc using the machine code set up by first program. All you need to know are the sector numbers."

Thank you Alex for your informative letter. Even though you may disagree with some of the material published in CPC USER, at least it prompted some response !

The reason why we gave an unsqueezing procedure using only one disk drive was simply because most members with a CPC6128 have only the one integral drive.

We concur with all your other comments about the facilities offered by NSWEEP. We were merely dealing with the file unsqueezing procedure in the simplest possible way.

We weren't consciously knocking WACCI, only comparing costs - and our PD software costs £3.50 only if you want us to supply the CF2 disk. If you supply the disk and postage, our PD software is free of charge.

We don't follow your argument about the programs we published to configure the CPC keyboard for Pocket Wordstar. The two programs we published are not in any Wordstar handbook we've seen and are totally different to KEYS.WP. That was the whole point of the article. We included the keys.wp info merely as a comparison with the two additional (and original !) programs we offered.

You're quite right of course about the purpose of the 12V socket on the monitor; the connection powers the motor of the disk drive on the CPC6128, not the cassette motor on the CPC464. The query came from a member with a CPC6128 (even though he referred to the CPC464 in his letter), so our reply was basically correct for him, even though we did get our cassette knickers in a twist !

The programs you've included are most welcome and we much appreciate your offer of help with programming. Our newly-appointed Programming Languages Editor will be contacting you. Thanks again for your support.

John Benzie of Bradford writes:

"...re Peter Breckin's letter on page 10 of CPC USER, Issue 10...

I think that ODDJOB is a great utility and if Mr Breckin cares to send me a blank disk I believe that I can give him a copy"

Thanks John for your kind offer which we're sure Peter Breckin will appreciate. No doubt someone will jump in with both feet about software piracy but since Pride Utilities, the original supplier, have ceased trading I doubt that anyone will have a bona fide objection.

Paul Newman of Leiston writes:

"May I say firstly how much I enjoyed reading Issue 10 of CPC USER. I have to be honest in saying that I've not really found very much in previous issues, but this one was excellent. Thank you for publishing my letter.

Further to that earlier letter, Amstrad Computer User has amongst its reader contributions library a utility for loading Spectrum binary files into the CPC. Mr Sambrook may be able to make use of that.

Referring to Brian Bristow's piece about New Software (Issue 10, page 23), I have recently upgraded from Brunword to Info-Script and, although I use Brunword more than the database, Info-Script is very good indeed.

Users would be well advised not to attempt a complex database set-up first off; the marker system does take a bit of getting used to and the example supplied with the program should be fully studied.

Brunning manuals are a little too condensed for my liking, but they are to the point and I could find no obvious errors.

The mail-merge and labelling facilities are enormously useful - my biggest file thus far is the Retired and Deanery Clergy list for our Vicar. I can get 60 personalised letters and matching labels out in under an hour !

In setting up the clergy database, I did discover one oddity of Info-script's artificial intelligence. A clergyman should properly be addressed as The Reverend or the Revd so-and-so. Info-script dislikes the use of The in any title area of the name and address. So other forms such as The Very Reverend so-and-so are a little difficult to title properly. I imagine that Brunning have forgotten this aspect, but perhaps it's a minority.

MAILBOX

My only gripe about the Brunning system is the blessed Help key (F7) - it's too near the DEL key. I would prefer Help to be called rather differently."

Thank you Paul for the tip about Spectrum binary files and for your views about Info-Script. Although we've not yet reviewed Info-Script, we've heard of a number of criticisms which centre upon the inadequate user-instructions concerning the different methods available for linking records, the complexity of setting the markers and the hic-cups which can occur as a result of the program trying to retain too much in memory. But, fair do's, we haven't yet tried it and to be honest we're still not clear what the differences are between Brunning's DataFile and their new Info-Script. We would welcome an article from you - please !

Richard Sergeant of Hythe in Kent writes:

" As a new member I would like to introduce myself via MAILBOX and pass on a snippet of information that I stumbled on by chance. I had a copy of Siren's DISCOLOGY and was well pleased with it. A few weeks ago, reading CPC USER, Issue 9, I was delighted to see that Siren offer a 25% discount on all products. I decided to order DISCOVERY PLUS to supplement BONZO SUPER MEDDLER (I am still working through my collection of tape-based software, transferring them to disk); anyway, due to a slight foul up, Siren sent me another copy of DISCOLOGY, which turned out to be v3.3 (my earlier copy is v3.2). On 'phoning Siren and explaining the problem, I was asked to return DISCOLOGY which would be replaced by DISCOVERY PLUS. I then enquired as to the difference between v3.3 and v3.2 and was told that v3.3 was more powerful. Could I keep v3.3 and send back my v3.2 ? Yes, was the reply. This is where the story really starts - yesterday evening, whilst following the instructions in CPC USER, Issue 10, on how to autoboot SUPERCALC2, I had DISCOLOGY in Drive A and, by mistake, pressed Ultracopy; well, you've guessed it, the disk transferred itself. So, folks, v3.3 will back-up itself to disk. I trust this will help other members.

To conclude, the standard of your magazine is very high and having used the services of the PD library a few times I'd say the quality and service is nothing short of excellent. Keep up the good work. "

Thanks for your letter Richard and thank you too for patting our backs. We do try to please most of the people most of the time, but we do slip up now and again !

We would also like to acknowledge an earlier letter from Richard in which he kindly offered to help members who may have difficulty with our type-ins and others published in the glossy nationals. Richard has dozens of working programs (disk and printer utilities, etc) gleaned from various sources over the past few years. Richard's offer stands only for programs in Basic and does not include games; he asks members to send him a copy of the offending program,

plus details of the magazine in which it was published (title, date and page number) and an SAE. Richard can be contacted by 'phone on 0303-64794 (evenings only) or write to him at 67 Nursery Fields, Hythe, Kent CT21.4DS.

Rob Mordin of Cowplain near Portsmouth writes:

" Can I make a few comments about some of the articles in the July/August edition of CPC USER.

Regarding Brian Bristow's article on SCRIVENER. Is he aware that there is no need to first unsqueeze a DOCUMENT file before printing it ? Both of NSWEEP's options View file and Print file will type a file to the screen or the printer respectively, unsqueezing it if required. At least, this is true of the version I have: v2.07. If this is a later version than the one in the UAUG's public domain library, I will be pleased to send a copy.

As for the output to the screen showing pound signs rather than hashes, this is because the English character set has been selected - probably by LANGUAGE.COM on start up. This set up gives a pound sign on the hash key and a hash sign on the pound key !

Concerning Tony Baker's articles on self-loading CP/M programs, I think it is worth mentioning that, even though CP/M+ allows the use of data format disks, system format disks must be used to auto boot programs as the command |CPM needs the software held on the two reserved tracks. Vendor format won't work as it leaves tracks 0 and 1 empty.

Finally, Wg.Cmdr. Cutts asks about a list of CALL addresses. The best source I know of is the CPC Firmware Manual which, as the name suggests, contains all the firmware routines. Some routines that I've found useful from BASIC are:

&BB4E which, among other things, sets PAPER 0 and PEN 1;
&BB9C this swaps over current pen and paper inks;
&BC02 this sets inks to their default values.

I hope these points are of some interest. "

Thank you Rob for taking the trouble to comment upon so many aspects of recent CPC USER material. You have the advantage over us on NSWEEP; our copy is an ancient v2.05 ! We would certainly welcome and appreciate a copy of your v2.07.

Our copy of SCRIVENER is an even more ancient v.0.99, so if anyone has a later version please let us know.

Isn't it surprising how something can lie dormant for years then, suddenly, everyone's having a go ! NSWEEP came to the surface merely as a means of unsqueezing squeezed files. Within the space of a few months, it has become a major talking point. We wonder whether contemporary programs such as UNSQUEEZE and POWERSWEEP would have generated as much interest. Nice to hear from you Rob.

Peter Breckin of Bury writes:

" Sorry to hear you are having so much trouble in extracting articles from members - it's an excellent little publication - my main reason for joining and it would be a shame to lose it. Several years ago I started a magazine for the local camera club; the first two issues went down reasonably well, after that it was yours truly writing the articles, duplicating, stapling and distributing. I managed to keep it going monthly for two years but that was enough.

I am sorry that I cannot write any articles directly concerned with programming, etc, as I am still learning - very much so - but as a humble suggestion for a couple of page fillers to expand the mag and help members get to know each other better why not have it compulsory, starting with the Editor down or numerically with membership number, for each person to contribute an article about him/her self; for example: equipment, favourite programs, personal details, usage of Mini Office II or Masterfile III, etc.

As I've said before, I would be interested to know where other members are located - are they all in the deep South? Even if you adopted the above suggestion I think you would find that there are writers and readers and others who are just content to sit back and let others do the work.

If any members are in the near vicinity of Bury in Lancashire we are endeavouring to keep a small computer club going at the Mosses Centre, Cecil Street, Bury; meetings are held on the second and fourth Mondays in the month starting at 7.30 pm. Every person who comes along seems to have a different computer and it is most difficult to find something that is of universal interest. "

Your suggestion about making it compulsory for members to contribute articles has been raised before and has been considered by the Management Committee, but it's a non-starter simply because we'd lose the majority of our members.

The Management Committee has also considered various proposals about releasing member name and address lists but we would need to obtain members' permission to do this (if we didn't, we'd be contravening the Data Protection Act) and, so far, no decision has been made. One proposal is to introduce some form of help line-cum-pen-pal section, but the Committee haven't yet finalised their plans for this.

As to there being writers and readers and others, we know exactly what you mean; however, in fairness we must add that more articles have been submitted in recent weeks than ever before so, hopefully, everyone is getting the message. We have to accept that members cannot be compelled to write articles and there will always be members who play little or no active part in support of the Group. Their usual argument is that, having paid their subscriptions, they are supporting the Group and are entitled to benefit from all the services offered by the UAUG without having to make further 'contributions'. In essence this is true but if we all adopted that attitude there would be no magazine, no libraries and in fact no club. Those of us who toil on behalf of the UAUG are also paid-up members, not employees as some people seem to think. The real point is that the

UAUG is a club, and a club is defined as "an association of persons united by some common interest, meeting or communicating periodically for mutual benefit, co-operation or conviviality". We're not having a go at you Peter, or at anyone else who takes the trouble to write to us or submit articles, but it is necessary occasionally to remind other members of the club concept.

Mrs Terry Walker of Hythe near Southampton writes:

" Having read Issue 9 of CPC USER, I feel there seems to be an air of doom and gloom; lack of new members, lack of advertisers and large numbers of members failing to renew their subscriptions - these are all on page 3 (not as attractive as another page 3!).

Page 4 - I'm not the adventure type - yet!

Page 5 - public domain - well, perhaps when I am more familiar with the different languages - at present I'm limited to Basic. In future, maybe this would be of assistance to me.

What is BIG BONZO and BONZO DOO DAH; obviously some code to which as a beginner I am excluded.

I keep reading about 'add-ons', 'roms' and 'interfaces' - I have yet to read an explanation of exactly what these are.

Page 13 - ah yes - I do think I could get interested in this because I do produce a Newsletter for Machine Knitters.

Page 14 - I was delighted when I read this page. I invested in Protext on the advice of the salesman when I first purchased my 6128 and I also have Mini Office II - this I purchased specifically for the database and spreadsheet facility. Good - I got something correct!

Page 15 - Printers - well it could be of help. I have a Brother M109 - so far, all I've managed is to use it in conjunction with Protext. It came complete with a good size manual but I haven't got down to coming to terms with it - as yet!

Page 16 - Ooh - err - No I don't think I'm quite ready for John Blessing's modifications

Page 26 - (I've skipped a few pages otherwise I'll be here all night). This really does interest me - I have right now filled in a request but found on the request form the cost per book was stated as £1.50 yet page 26 states £1 per book (always one for a bargain, I completed my cheque at the lower rate!) This sudden urge was prompted by page 27 - excellent - at last I'd found a book review. When I've seen books advertised elsewhere, there is never a clue as to their contents - so I've not bought any! The 'For Sale' items - always interesting.

I've completed the Questionnaire - this I found not easy because I do realise that as a member of two months standing I'm hardly in a position to comment fairly and justly. Also, I should imagine I am very much in a minority because of my age and sex (looking at a survey in the Amstrad Action magazine, only 3.6% of their readers are between 50 - 60 and only 4.8% are female - it would be interesting to find out the figure for the combination! - I'm not serious).

MAILBOX

Having said all this - the reason for it is because I know that a computer has a great deal to offer (other than games) but for folk of my era, learning to use a computer is not helped at all by the manufacturers - both of the computers and the software - the manuals are dreadful - very inadequate and what is worse - the manufacturers don't really seem to care.

I have many interests and had hoped that by joining a user group I might find others with similar interests. I'm a keen Bridge player, fond of my garden (don't particularly like the spade work, but...). I would love to have a Gardening Calendar to remind me when to feed and plant and prune, etc, etc. Both seem to me to be normal interests - my other love - machine knitting (I'm a retired machine dealer) - I know it is possible to produce a drawing of a garment on the screen and do all the sums to enable me to knit a sweater - because I've bought just such a program - but I know it could be improved upon but I don't know how to tackle it and it would not be 'on' for me to ask the programmer - I somehow don't think he would tell me! Are there any machine knitters on your membership list - or maybe that is confidential information?

PLEASE - I'm not knocking your magazine - maybe it is just not what I need - I'm not ready for it yet.

I don't think I could volunteer for any of the 'posts' - because I have not got the knowledge to be of assistance tho' I would willingly put stuff in envelopes and seal them up - if that would help anyone.

With a membership of over 100, I would have thought there would be more feedback and communication - somehow it seems to be down to about a dozen folk doing all the writing, etc, which can't be much fun for them.

What would I like? I would appreciate a real beginners page, starting with say an article on how to set up a filing system. I have a very large number of knitting designs - all on bits of paper - which I know could very safely be stored on a computer disk. I did start but got myself into the most dreadful mess - it has become a nightmare for me to try to find anything in a hurry. It all boils down to how to organise a filing system. (The article needn't depict knitting designs!).

I started this a couple of nights ago and have debated whether or not to post it - I would hate to upset anyone in any way and being so new to the club have so little to offer in return. "

Well, Mrs Walker, that's one 'helluva' letter to answer in one stab. But don't misunderstand us - we welcome your letter and appreciate the trouble you've taken to write about your views and needs. We sympathise with your frustrations concerning user-manuals which, we hasten to add, are not exclusive to newcomers to computing; the number of totally accurate and properly structured handbooks are very few and far between. The main reason for this is simply that the majority of hardware and software

for the CPC computers is produced with severe budgetary constraints in order to slot in to a very competitive market. As a result, user-manuals tend to be written by programmers or someone in-house who appears to be under-employed at the time; whilst such people may be perfectly competent in their own fields, they may not necessarily be competent writers. Some manuals are better than others, but none if any are produced by professional handbook writers. Lack of adequate funding is also the main reason for much of the bug-ridden software being marketed prematurely. Regretfully, this same lack of funding is responsible for many manufacturers inability to provide adequate product support in other areas. It is simply a matter of economics and can be illustrated by comparing typical costs of hardware and software for home micros with the costs of similar products intended for professional applications.

The BONZO series of commercial programs are basically utilities for tape-to-disk transfers, and disk formatting and house-keeping; they are available from Nemesis of Kettering (tele: 0933-623967). 'Add-on' is a non-definitive colloquial term used to describe any accessory that is 'added on' to a computer; a joy-stick is an add-on. The term ROM is an acronym for Read Only Memory; there are two types of ROMs - internal and external. An internal ROM is one fitted as an integral part of the microprocessor and may, for example, store the operating system and/or the language native to the computer (e.g, Basic). External ROMs are those fitted externally (in a ROMbox or ROMboard) and which store supplementary operating systems or, more usually, a program such as a word processor (e.g, Protext). An 'interface' is a general term used to describe almost any form of connection that is necessary between two items of hardware, especially when the two items are electrically incompatible; all the sockets on your 6128 keyboard are in effect interfaces. Most of these terms are explained in Appendix 2 of the CPC6128 User-Instructions.

We take your point about the need for a beginners section; other new members have expressed similar views, so you are not alone nor will you upset anyone. We would like to introduce such a section but, as you will no doubt appreciate, all material for publication has to be written by someone and we can only try to persuade a suitably experienced member to undertake the task. In a Group such as ours, we are entirely dependent upon members for material for publication; we could not possibly afford to commission a writer to do the job (certainly not from an annual subscription of £5).

We should also make it clear that we have no material in reserve, so we're not holding anything back; everything we've received (including correspondence) has been published and each edition of CPC USER is, of necessity, produced on a hand-to-mouth basis. Let us hope that we can meet your specific needs without too much delay.

Meanwhile, if any member in the Southampton area could spare an hour or so, we feel sure that Mrs Walker would welcome a helpful visit.

(Offers of help via the Exec. Editor, please)

Tony Magean of Banbury writes:

" It was certainly not happy reading in Issue 9 of CPC USER regarding the Editorial and Chairman's Bit. It should be pointed out to members that the club was formed for the benefit of CPC users. And what benefits - from applications advice to free PD software - where else could a CPC user get this sort of service for only a 'fiver' each year ?

I blame the lack of interest from members; even the most novice of us could contribute something even if it's only a hint or a tip for a game or an applications package. I for one would certainly not like to see the club close down. I would also like to congratulate the Chairman and the Committee for all their efforts in making the club work and for giving so much help to CPC users. Keep up the good work.

Would you please help with the following questions:

1. Name a font package I can use with the CPM+ version of Protext;
2. Explain for me the Dk'tronics real time clock and some practical uses to which it can be put;
3. Explain why the CPC monitors have a large border and why there should be one; it certainly makes the screen display a lot smaller.

Some of the features I would like to see in future issues of CPC USER, are:

1. An explanation of the utilities on the CPM master disk;
2. An introduction to Dr.Logo;
3. Advice on the STOP PRESS desk top publishing package;
4. Information Fact Sheets - software to hardware;
5. Problem Page;
6. Example and use of mail merge.

Thank you. "

Thank you, Tony, for your letter; it's nice to know there's some support and sympathy out there. We've noted your suggestions for future editions of CPC USER; let's hope that other members have also noted them and, you never know, someone may come up trumps !

As to your questions, we think this is an opportunity to put members to the test. We have enough hassle getting CPC USER together and we often find that some of the material we publish is subsequently challenged by a member with greater knowledge or experience than ours. So, on this occasion, perhaps the 'experts' would care to answer the questions directly (via Mailbox, of course).

Incidentally, there's plenty of information about CPM and Dr.Logo in the UAUG Book Library.

Malcolm Maddock of Wanstead, London, writes:

" I have just become a member of the UAUG. First, may I congratulate you on the very high standard (both in content and

production) of the magazine - it really is a pleasure to see something so well done. Although I am not greatly into CPM or adventuring, etc (being primarily a boring Basic programmer and 'serious' user), I nevertheless find all the articles, etc, stimulating and interesting. What a lot one gets for a £5 subscription - the magazine alone is worth that ! And yet you have only about 138 members - you ought (i.e, deserve) to have ten times that number.

So why is your membership so low ? I think that your main problem may be letting people know you exist. I regularly take Amstrad Action and Computing with the Amstrad CPC, and occasionally take Amstrad Computer User but cannot remember having heard about you from any of those sources. I found out about your existence from Micromart, which I would have thought is not taken by many CPC users and is certainly not read by most as thoroughly as I read it ! So how about, as a first step, writing a letter to each of the CPC magazines, pointing out what the UAUG offers to its members, how good it is and how much better it could be if it had more members (don't mention the sub though - just invite interested parties to contact you). I know that Amstrad Action quite often publishes such letters in their Reaction column.

Next, many of your potential members (i.e, serious users, CPM freaks, adventurers and the like) are currently members of Micronet - hundreds of them who are CPC users. Are any of the UAUG officers or CPC USER editorial staff members ? If so, why not write to the Cage (the CPC area of Micronet) to advertise your existence. You could also, if you wished, send a mailbox to all the CPC users on the Cage's membership list - you can get this on screen and it gives all Cagers's MBX numbers (if you are unable to do this, I could do a trial bit of advertising for you if you want). With Micronet just having introduced time-charges (as from July 1st) for off-peak use, I suspect that quite a lot of Cagers (me included) will be leaving soon and will be looking for an alternative source of help and information such as the UAUG. Most 'netters' are also inveterate helpers - they love writing with problems or to help others with their problems.

How about approaching Database Exhibitions and asking them for permission to distribute leaflets advertising the UAUG at their Amstrad Computer shows ? This would reach a vast number of potential members very effectively. Apparently, the next Show (at G-Mex in Manchester) will be more CPC biased than the recent London-based Shows have been.

As regards what help I can give you - I'm afraid it is not a lot ! I have a fairly high-powered job in central London which means 2½ hours commuting each day. What little spare time I have is eaten up with teaching and playing with my two sons (aged 8 and 10) and with involvement with a local music festival - (believe me, I really know what it is like trying to get people to help rather than just take all the time !). Added to this, I tend to write only Basic programs and only for very specific tasks to do with my work and hobbies. Consequently, most (if not all) of the major programs I have written would be of little interest to others. However, I could (if you wish) write the

occasional article for CPC USER giving tips on Basic programming and explaining some of the subroutines I have devised which I find particularly useful. In addition, although I buy very little software or hardware, I could write the odd (!) review if that would help. My two most recent purchases have been AXIS (a CPM+ comms software package with some very unusual features - exclusively for the 6128) and the wondrous Star LC-10 printer. Would you like a review of either of these? If so, how long would you like any article/review to be?

Finally, some other points arising from the May/June edition of CPC USER:

1. I did not receive a Questionnaire with that issue - please send me one;
2. As I react to static, I find that sitting near to a VDU soon becomes uncomfortable. However, I have bought a monitor extension lead and now sit at least three feet away from the VDU (why did Amstrad make the original leads so short?) This is fine unless you are working constantly in Mode 2 and are short-sighted (fortunately, I am long-sighted!). Also, anyone who has trouble should try changing the colours (if the program permits this) especially in Mode 2. Certain people's eyes react badly to particular colour combinations. The moral is, experiment!
3. In reply to P.F.Cooper of Pontefract, I have always bought my clear plastic disk boxes from Amstrad Computer Shows where you can normally get them at 50p for five. As to Mini Office II, I can't understand anyone liking this suite of programs unless they have very limited requirements or expectations. The database and word processor are both slow and cumbersome, and the spreadsheet is unbelievably so; all three modules are hopelessly limited in available memory space. The comms module is very basic - in fact, the only bit that is any good, in my opinion, is the graphics module - but that is tied to the dreadful spreadsheet!
4. For serious programmers, I would certainly recommend Subroutines for the Amstrad 464 and 664, reviewed in the May/June edition of CPC USER. The routines also work perfectly on the 6128. It is far and away the best and most useful book I have ever bought for my Amstrad. If anyone has written a program which needs to do a lot of string sorting, they will find that the QSSORT routine (near the end of the book, is invaluable. This is one of the best ever sort routines and if you buy or hire the book for that, do type in the machine code version - it's worth all the extra effort. The Basic version sorts 1000 long strings in about 10 minutes, while the machine-code version sorts the same array in about 7 seconds!

Absolutely finally, is it possible to obtain back issues of CPC USER? If so, whom do I contact to obtain them and how much do they cost?

With many thanks for all your team's hard work in producing this excellent service. I do hope that both membership and contributions to the magazine will pick up substantially very soon. With best wishes..."

We were very pleased to receive your letter, Malcolm, because amongst other things it highlighted a number of points which certain members assume we have ignored. For example, we regularly write to all the national magazines, we have distributed leaflets at the Shows and we have tried to advertise the UAUG on Micronet. Unfortunately, the response did not justify the expense (e.g. there's no point in spending £25 on printing if it brings in less than five members). The response from Micronet was similarly disappointing and we can only ask for, not insist upon, 'free advertising' from the glossies. We believe that we've done everything we can to promote the UAUG, within the constraints of the income we receive from your subscriptions. However, it isn't quite as bad as it seems and the position has certainly improved since our gloom 'n doom issue of May/June; our membership is now 225 and is increasing steadily week by week; material for publication is also trickling in and as you can see from this and the previous edition many more members are taking advantage of our MAILBOX feature. Nevertheless, we are far from complacent about the Group's strength in all respects and we have certain plans in the pipeline which we expect to be fruitful. The Group's main weaknesses lie in inadequate funding (we are actively pursuing trade advertising and other sources of income) and the lack of support by the majority of members. We still have no Advertising Manager or a Comms Editor despite numerous pleas and our 'invitation' on page 3 of Issue 9 ("...if a quarter of the membership each submitted one article, we would have sufficient material for CPC USER for a whole year...") seems largely to have fallen upon deaf ears. But that's the name of the game when it comes to clubs such as ours; even so, the fact that we are aware of this does not prevent us from regularly trying to jolly people into action!

We would very much welcome an article (or two!) from you, on any subject you choose; there is no restriction on size! It would be of considerable help to us if material could be submitted on disk; the disk will, of course, be returned to you.

Back issues of CPC USER are available from Paul Owen at 50p per copy, but 'phone him first on 0705-526366 to ascertain which issues are available. Hurry up though, because the price of back issues is to be raised with effect from January 1st!

Frank Ellis of Botley near Oxford writes:

"THE CALCULATOR. Having typed in the program on page 9 of CPC USER, Issue 9, and finally getting it to work satisfactorily, I felt that I should pass on the following information for the use of other readers.

The program was produced by a printer which does not seem to differentiate between O (the letter) and 0 (the number) and it is therefore not clear that in lines 100 and 270 the letter O is to be used.

Using the given line 880, I found that the bottom lines of the keys on the right hand

side of the calculator were displaced to the right and that the right hand boundary of the calculator had gaps in it. The original line was replaced by the following, which solved the problem:

```
880 PRINT CHR$(249)STRING$(3,CHR$(255))CHR$(250):LOCATE x,y+1:PRINT CHR$(253):
LOCATE x+4,y+1:PRINT CHR$(252):LOCATE x,
y+2:PRINT CHR$(251)STRING$(3,CHR$(254))
CHR$(248)
```

There seems to be no logical reason for the number 21 in line 870. I replaced it with the number 17(=2+3*5). Similarly, in line 900 the number 21 can be replaced by the number 18(=3+3*5).

SIMPLE ROMBOARD SURGERY. On page 17, the Expansion Socket PIN 37 should be BUSRD and not BUSR2. The information given also applies to the CPC464.

PROGRAMMING RSXs. In paragraph 4 in the left hand column of page 20, the reference to the Basic loader should be Program 3 and not Program 2. "

Thank you, Frank, for pointing out the errors. We use a daisy-wheel printer to produce CPC USER and, like most daisy-wheel printers, the zero is not slashed. We usually add slashes to the 0 by hand to make the differentiation, but we obviously missed a few.

We must take your word for it that the calculator program was in error. The program we typed in worked perfectly, but thanks for your corrections just the same.

We're a bit surprised by your correction of the expansion socket Pin 37 data. The details we published were a direct photo-copy of the table which appears on page 7-40 of the CPC6128 User-Instructions so, obviously, we shall have to advise Amstrad of the error in their handbook.

Our apologies to everyone for our part in publishing incorrect data.

Helen C Croom of Stapleton, Bristol, writes:

"I eagerly await my next CPC USER and consider that my £5 was money very well spent.

I have one question that I would like you to print in the next publication if it is possible. I have a Star NL10 printer, which I bought second-hand from someone with a PC. My printer has an IBM/PC interface cartridge (it has the IBM block characters instead of the italics font) and I was wondering if any other member with an ordinary parallel interface would like to do a swap? My interface works perfectly with the Amstrad and all codes are Epson-compatible - it's just that I would like the italics font instead of the IBM graphics. Any offers?

I hope that I may eventually be able to contribute something to CPC USER. However, as I do not program I don't know in quite what capacity! I'll have to work on it!"

It's always nice to hear from new members and we hope someone comes to your rescue with the printer you want. Letters from new members are even nicer when, like Mrs Croom, they pull a stunt on us by coyly declaring their inexperience then send an article for publication by the very next post! Thank you, Helen, your sort of 'inexperience' is welcome anytime! Your contribution is published in this edition.

Incidentally, in case you're planning to spring another surprise on us - we aren't all programmers and we welcome contributions on any subject. So get cracking!

David Mitchell of Jaywick Sands, Clacton-on-Sea, writes:

"As one of your newest members, I note with sadness that membership is falling. It could well be that this is mainly on account of the longer Summer evenings and youngsters (who seem to be the mainstay of most things these days) are mostly out and about their various pursuits, so that when the evenings draw in more their interest in the computer and its associations will resume. Let's hope so.

Unfortunately, I will never be able to help by contributing towards your magazine as, where computers are concerned, I am one of the real original dyed-in-the-wool idiots and can only boggle at the wonders of the things whilst admiring (and feeling rather jealous of) others who can make them jump.

I shall look forward to your magazine every two months and if I don't understand some of it - well, it still makes interesting reading."

Welcome to the UAUG, David, and thanks for dropping us a few lines; at least we know you're breathing! But seriously, computers are only machines and are totally incapable of doing anything on their own; they need the human touch, literally, before anything can be achieved, so just remember that when you next 'boggle at their wonders'. YOU are in command, so it's up to you.

You refer to ".....your magazine.....". It's not ours, David, it belongs to you and to every UAUG member, so make good use of it. No doubt it won't be long before you are bombarding us with questions and we look forward to that. We wish you well in your new-found hobby, as we do all new members.

Incidentally, the seasonal fluctuation in membership is directly opposite to what one would expect. Membership of the UAUG increases in the Summer and falls off in the Winter. Yes, we know it's illogical but it's a fact nevertheless. The indications were very bad at the start of this Summer but, thankfully, we recovered and made good some lost ground.

John Calder of Edinburgh writes:

"I wonder if any member can help with a problem I am having with my 464?"

Loading and saving from the tape are very unreliable. Recently, trying to load a short program which had been catalogued as OK, I got the "Read Error b" message three times in succession, yet at the fourth attempt the program loaded perfectly.

I have tried the obvious things such as cleaning and demagnetising the head without much success. Can anyone suggest what might be the trouble?"

Well, John, we shall have to throw this one at the membership in the hope that someone will help with the right answer. We have no first hand experience, but this sort of problem may occur if the head is out of alignment. However, before you rush out to the nearest service centre, wait to see if anyone can offer a more positive diagnosis. Whilst you're waiting, you could try the tape in another 464 to establish whether the fault lies with your deck or your tape. It may be nothing more sinister than the usual erratic behaviour of tape software.

Peter M Shepherd of Warrington writes:

"Following the plea for members to write in, I will endeavour to do my bit. First, an introduction: I have had a CPC6128 for nearly a year, having been introduced to computing six months previously on an MSC training course. That showed the desirability of having a disk-based system. I studied the market and visited the Amstrad Show last summer before buying this machine at a good discount.

My system now consists of the CPC6128 with a DMP2160 printer, Multiface II and a 2nd disk drive constructed as per CPC USER Issue 7.

I am generally pleased with the system and having bought some inexpensive tape games am very grateful for disk drives; just getting some games to load once to back-up on disk can prove trying (Amsoft games are generally easy to load). Serious software comprises Masterfile II, Matrix spreadsheet and Word Perfect (being used for this letter).

I find CPC USER an interesting magazine as it provides in-depth reviews of software and products rather than the commercial magazines which give more of a quick overview. I successfully wired up and got a 2nd disk drive operating as per Issue 7; however, the line 'All that needs to be done is to fit the disk drive housing...' remains to be finished as one has to carve up the box to fit the drive. Apart from turning over the ribbon connector, it all worked first time (having a multimeter and soldering iron for my model railway helped). The only problem so far encountered has been a Firebird game 'Kinetik' which loads in Drive A but gives a Speedlock protection message in Drive B (any ideas?). Also, if I leave a disk in Drive B for data then it gets warm as well as the drive unit - any ideas on that?

Like Fred Ball (Issue 7), I have recently added Multiface II to my system. Primarily, I have used it to copy tape games to disk as read errors are certainly a problem with tapes. My only failure so far has been with Beach Head which gives a corrupted screen when reloading the saved program. I have found that it will work even on programs designated 464 only; first, one needs to disable the disk rom (a program to do that was listed in the January 1988 edition of Amdata (the Amstrad User Club Newsletter), then one loads the program from tape. Despite the rom being invisible to the program, Multiface can activate it and save to disk; even Easi-Amsword can be run from disk although text files must still be saved and loaded on tape.

The reviews of Masterfile and Matrix were also interesting. Masterfile has so many features that it will take some time to learn and understand them all.

Some points on Matrix. I find the 'paperweight' is very useful to transfer data from one spreadsheet to another; if keeping weekly sheets, once one is finished and saved then the final data (i.e. closing balances) can be saved via the paperweight feature. A new blank spreadsheet with formulae built in can then be called from disk and the paperweight entered under opening balances thereby avoiding the need to save and transfer the data to disk as a separate file. Features which it lacks include locking titles and line inserts. The latter omission can be overcome by using the copy-to-paperweight routine and pasting in a different place, but you must be aware that formulae must be shown (using the menu option) whenever saving to paperweight otherwise the formulae will be lost and only their results retained. I have personally not found any problem with loading a new file to replace one in memory (vide Brian's gripe in his review). The print options worked easily from the day I obtained my printer - a definite benefit from using a fully compatible printer (i.e. DMP2160). Finally, it works with two disk drives supporting the usual Load B: filename routines. However, it will only CATalog the drive from which the program was loaded; this same problem also occurs with the Word Perfect word processor.

My main interest lies in transport and I have several games which have a transport theme; these include Juggernaut, which is an articulated lorry driving simulation, Hewson's Evening Star, which is a train driving simulation, and my personal favourites the Dee-Kay Rail Traffic Control and Locomotive Fleet Manager series. I will endeavour to write a review of one, hopefully in time for the next edition of CPC USER.

I have mixed feelings about other clubs. I joined the Amstrad User Club which has been useful in getting together a printer and disks plus some other special offers; however, the delivery delays (for example, 5 months for the printer!) certainly would tend to put some people off and could well be a reason for a lack in growth of CPC owners. For such an aggressive sales-orientated organisation, their stock control system

seems hopeless. The Home Computer Club (W.H.Smith Group) seems limited in its potential and covers mainly games some at twice the price of other shop offers, so I will probably drop out of that before long. "

Thank you, Peter, for responding to our plea for members contributions. It was certainly good to hear that someone took advantage of the article on D.I.Y 2nd Disk Drives and that it all worked. It is quite normal for disks as well as drives to warm up, but if you're concerned about it then drill a few ventilation holes in the top and base of the box that houses the drive unit. Another option, is to switch off the power to the 2nd drive whenever the drive is unlikely to be needed (if you do power down, remember to disconnect the ribbon cable).

The problem you are having with games software failing to load from Drive B may be due to the software being designed to operate only from Drive A.

We feel uneasy about programs which disable the disk operating system. Most tape software can be copied to disk without disabling the DOS. Easi-Amsword can be operated from disk and text files can be saved to or loaded from disk simply by altering the program as follows:

Transfer the program to disk. Then load and list the loader and change line 570 to RUN"EASIAMSW. Then list the main program and delete lines 10 to 40 inclusive.

But, then, why bother with Easi-Amsword when you have Word Perfect. In our view, Supersoft's Word Perfect is a very underrated word processor and has much to commend it; it is far far superior to Easi-Amsword which is little more than a toy. As to Word Perfect's inability to display a Catalog of files on a disk in Drive B, we respectfully submit that this is a minor constraint rather than a problem. Word Perfect occupies a mere 9k of disk space so, even if it is on every disk, there is still plenty of disk space left for text files; thus, a 2nd drive is not really necessary.

We look forward to receiving your review of your driving simulation software.

Mr C.J.Eady of Westbury writes:

" Is there a list of PD software available ? What's the best book on CP/M for beginners? Can a 6128 use 3½ or 8 inch disk drives ? How can I transfer the CP/M files to a utilities disk to save changing disks ? "

PD software available from the UAUG is listed from time to time in CPC USER; an update appears in this Issue.

It's difficult to recommend a particular book - much depends upon your IQ. The two most popular books for beginners are The Amstrad CP/M Plus by Powys-Libbe and Clarke (published in 1986 by MML) and CP/M The Software Bus, by Powys-Libbe, Clarke and Eaton (published by Sigma). Both these books can be a little heavy going for the outright newcomer; if you're in that category, then some of the more elementary books, mostly American, may be more suitable. We suggest The CP/M User Guide by Hogan (published in 1981 by McGraw-Hill) and The CP/M Handbook by Zaks (published in 1980 by Sybex); both these books deal with fundamentals, starting with CP/M v2. (The Amstrad CPC computers utilise both v2 and v3 of the CP/M operating system). The main difference between v2 and v3 is that the latter utilises the 2nd 64k bank of memory automatically, whereas v2 does not. V3 is CP/M Plus. The most comprehensive book on the Amstrad CP/M Plus system is The CP/M Plus Handbook (Operators and Programmers Guide for the CPC and PCW Computers) published by Heinemann and available from Amstrad under reference Soft.971; the same book is also known as The Digital Research CP/M Plus Manual. There are also a number of CP/M books available from the UAUG Book Library.

The CPC6128 will recognise any 'size' of disk drive provided that it is 40-track single-sided double-density and is logged on as Drive B; 80-track drives require special software before they can be used. Unlike many other CP/M computers, the CPC6128 will recognise no more than two floppy disk drives plus one silicon disk (i.e. a memory disk).

Your final question is not clear to us. If you mean that you want to run CP/M programs without having to change disks after running the CP/M system disk, then we suggest that you study Sections 4 and 5 of your 6128 User-Instructions. You will need to use the PIP.COM utility to transfer the C10CPM3.EMS, PROFILE.ENG and ED.COM files to your CP/M program disk (providing there is sufficient free space for them on the disk); the program can then be auto-started via a PROFILE.SUB file. If there isn't enough space on your CP/M program disk for the two CP/M system files (ED.COM can be deleted once the PROFILE.SUB file has been generated), the only alternative is to fit an external CP/M Operating System ROM available from Graduate Software, 14 Forrester Ave, Weston on Trent, Derby (tele: 0332-702993).

The generation of a PROFILE.SUB file may seem complex at first but it is simple enough provided you follow the procedure detailed in the 6128 User-Instructions. However, a few words of caution: ALWAYS work from a copy of your CP/M system master disk; NEVER from the master disk itself.

MEMBERS ARE CORDIALLY ASKED TO NOTE THAT POSTAL REPLIES WILL BE MADE TO INDIVIDUAL LETTERS ONLY IF AN SAE IS SUPPLIED.

THE EXECUTIVE EDITOR RESERVES THE RIGHT TO PUBLISH ANY LETTER RECEIVED UNLESS CLEARLY MARKED: "NOT FOR PUBLICATION"

COMMENT

THIS AND THAT ...

from Brian Bristow

The Frank Ellis letter:

Calculator - Lines 100,270 do contain 0's which look like 0's. I had another letter about this problem too, from David Mitchell, which I have answered direct. Line 880 is correct as printed, perhaps Mr Ellis has mis-typed a line somewhere? Also, 21 in 870 and 21 in 900 are indeed incorrect, because of the way that FOR - NEXT loops are handled; they makes no difference to the running of the program, which is why I missed them. I think that they were remnants of an earlier version of the program.

Mr Ellis has an obvious grasp of BASIC; I have submitted for publication all suitable programs that I have written; I hope he will consider submitting some of his.

Simple Romboard Surgery - It's called BUSR2 (overlined) in the 664 manual, perhaps the 6128 manual calls it the same. I wouldn't know which is correct.

Mrs Walker's letter :

I don't think there can be many machine knitting CPC owners! The idea of a Pen-Pals section might be a good one, but surely we should stick to CPC related subjects? She might well be right that some of the articles are too technical. I will try to bear this in mind. I hope somebody assures her that we don't mind criticism, any sort of response is most welcome, I think.

I have recently increased my commitment to CPC's by purchasing Utopia, Protext and Prospell on ROM, plus Rombo. And a 256k Silicon Disc. I cannot get the dictionary onto SDisc though. I think ROMS are wonderful, but I'm not so sure about the SDisc, as I rarely use CPM, which it seems most useful for. It works well with NSWP. I'll probably sell it and get a real 2nd. drive instead, and Promerge+.

A recent article mentioned Silicon Discs. I have discovered that the ROM from a 256k Silicon Disc can also be removed from it's box and placed in a Rombox. At least the 464 version can, and I believe that the 6128 version also can. It doesn't seem to be fussy about which ROM number it assumes. The memory bank can also be very easily converted to a 256k memory expansion by cutting one particular PCB track. The track can then be replaced by two wires and a switch, and it's not even necessary to switch the CPC off before switching over. The very helpful man at Ram told me all this. (Ram have taken over production of DK'Tronics products, (0252) 850031/850085). Rather than try to describe the appropriate track to cut, I suggest you ask Ram. I understand that the 6128 version does not allow this trick, it's layout is different and many tracks would need to be altered. So why don't they sell the box with a switch on it, I wonder?

The latest version of the SDisc ROM is 1.4. If you have an older version, particularly 1.0 which was not compatible with CPM+, you can send the ROM to Ram for upgrading. They charged me a very reasonable £3.50.

The recent questionnaire results show that, of those who use word processors, Protext, Tasword and Mini-Office are overwhelming favourites. A few have programs such as Brunword, WordStar and NewWord but all but one of those have at least one of the first three as well. I intend producing some articles on Protext in the near future, as it is the best of the three, any the only one that I possess! Menus, to counter the only valid criticism of the program, Promerge programming, and some more general, hopefully helpful, information. I hope to convince some of you of the value of Promerge, particularly Promerge+ (only on ROM), for uses other than Mail-Merge. To assist me in producing other articles, I need to sell some software, then I can buy some more. So turn to the Small Ad's pages now and make me an offer!

On the subject of Brunword, I have been advised by Brunning Software/Hardware that a special version of Qualitas Plus is available to run with Brunword 6128 or Info-Script. The program is called Qbrun, and is available with Qualitas Plus for £14.95, or as an upgrade for existing users for £5.95. Contact Brunning on (0245)252854.

Which reminds me that most of you printer owners have a DMP2000, like mine. If your opinion of the NLQ font is anything like mine, you will also be wanting to do something about it! I think Qualitas Plus is going to be the best solution, and I will report my progress.

I have a few other ideas for articles so don't switch off if you're not a Protext fan. A few queries from the members might not go amiss, particularly some nice easy ones.

If you want to use Discology and ROM's, you'll need to do some 'Romboard Surgery' (see CPC User, Issue 9), or risk breaking your computer's PCB through continual removal and replacement of the expansion lead. Even Arnor's ROMON commands are ineffective. I think Discology must re-initialise the ROMs, then it refuses to run. It is of french origin which explains the 'Deconnecter toutes les ROMs' message.

Protext on ROM reconfigures CTRL/small ENTER to RUN"DISC from switch-on, so just have a copy of your configuration file on each data disc, containing the last command as |P, and entering Protext is a matter of just pressing two keys. This fact is not mentioned in the manual.

My apologies for the lack of lines this month, school holidays and overtime at work have conspired to leave me with very little time on my own.

BOOK LIBRARY

UAUG BOOK LIBRARY UPDATE

***** CURRENT FEE:- £1.00 per book per month *****

If you require any of the books below, please fill in an Book Request Form and send that together with a Cheque/Postal Order for £1.00 to the Library Book Manager. The £1.00 fee is to cover the running costs of the library and postage.

If by any chance the book you require is already out on loan then it will be reserved for you. Once the book is returned (usually no longer than a month) it will be sent straight to you. Please return the books promptly, as this will avoid disappointment for other members.

Cat No.	Book Title.
B1001H	The Colour Coded Guide To Micro-Computers
B1002P	Computer Programing In Basic
B1005P	Writing Adventure Games On The Amstrad
B1006P	60 Programs For The Amstrad 464
B1008P	Machine Code For Beginners
B1009P	Using Your Amstrad 464-Made Easy
B1010P	Computer Challenges For The Amstrad
B1011P	Advanced Amstrad Basic
B1012P	Introducing Amstrad CP/M Assembly Language (2 copies)
B1013P	Subroutines For The Amstrad 464 & 664
B1014P	Sensational Games For The 464
B1015P	Applications For The 464 & 664
B1016P	The Working Amstrad (2 copies)
B1017P	Filing Systems & Databases For The Amstrad CPC 464
B1018P	Amstrad Advanced Users Guide
B1019P	Using Dr. Logo On The Amstrad
B1020P	The Amstrad Pentacle Adventure Creator
B1021P	Write Your Own Adventure Games For Your Micro-Computer
B1022P	Understanding Computer Graphics
B1023P	Amstrad CPC 664 Computing
B1024P	Introducing Logo *
B1025P	Mysterious Adventures for your Amstrad
B1026P	The Amazing Amstrad Omnibus *
B1027P	The CP/M Bus *

***** NEW BOOKS *****

B1028P	Master Machine Code on your Amstrad 464, & 664
B1029P	Assembly Language Programming for the Amstrad 464, 664 & 6128
B1030P	100 Programs for the Amstrad 464, 664 & 6128
B1031P	The Amstrad Disc Companion for the Amstrad 464, 664 & 6128
B1032P	Amstrad Machine Language for the Absolute Beginner
B1033P	Amstrad CPC Whole Memory Guide
B1034P	Illustrating Basic (basic tutor)
B1035P	Simple Applications of the Amstrad CPCs for the Writer
B1036P	An Introduction to Programming for the Amstrad 464
B1037P	How to write Word Games on the Amstrad 464, 664, & 6128
B1038P	Using your Amstrad CPC Disc Drives
B1039P	The Amstrad 464, 664 & 6128
B1040P	Amstrad CPC 464 User Instructions
B1041P	Amstrad Graphics-Advanced User Guide
B1042P	The Amstrad CPC 464 Disc System including CP/M & Printers
B1043P	Basic Programming on Amstrad 464, 664, & 6128

***** BOOK REVIEW *****

Cat No. B1010P Title: Computer Challenges for the Amstrad.

With the aid of ten superb programs, this book demonstrates the use of artificial intelligence on the CPC 464.

The first two chapters introduce you to the principles of artificial intelligence and the more advanced features of Locomotive Basic which is used in this book. The rest of the book is divided into two parts: the first contains puzzles for you to solve, and the second part contains a collection of stimulating games in which you will find the computer a worthy adversary.

The puzzles include Crossword puzzler, which will provide you with an endless supply of crosswords and The Cube, which is a graphical representation of Rubik's Cube. The games include Cribbage, Backgammon complete with on-screen prompts, and Draughts, which is designed to play the best possible game while keeping the time down for each move to one minute.

Brian McKiddie

PUBLIC DOMAIN LIBRARY

PUBLIC DOMAIN UPDATE *****

By John Blessing

Wow! You have been keeping me busy. I don't know what the postman thinks, all those plain brown packages which he has to deliver. It's good to see that so many of them contain PD contributions, as you can see from our MASSIVE library.

Some of those who have sent programs in since the last newsletter are:

Chris Wood: Payroll and shares prog, also DBASE II programs for small business accounts. Chris would like some help with PD comms software. He has a PROtek 1200 modem with Honeysoft Prestel software and wants to download screens when connected to a board. He would like to know if any of the PD software can do this and how? If anyone can help then contact Chris at 3 Felinheli Terrace, Port Dinorwic, Gwynedd.

Stephen Fowler - FONTY and AMSFAX

Andrew Cope: UNIX shell - No, don't ask me what it is, I've been trying to get him to write an introduction to it, but he has been very busy providing me with updates. I've filched some stuff from the very large amount of documentation that Andrew provided; you can see this as a separate article in this edition of CPC USER.

Stephen Gennard: one of our two (yes, two !) new programming editors has produced a variety of very professional looking utilities which can be found on PD7/2.

DJ Cutts : DIARY and other BANKMAN programs.

KWOK CHE TANG: Pascal demo files.

Alex Aird: COPY AND CAT#8 - two useful and very neat programs.

W A Sambrook: Lots of MBASIC games and utilities - see PD 7/4 and 7/5

T Magean : A tax calculator and a tourist guide to Wales

My apologies to anyone I have missed out, there really has been so much that it's been difficult to keep track of. That doesn't mean that I'm not going to make my customary plea - Please, please, please, will some of you write articles on any of the PD programs! Don't worry about grammar or spelling, we can sort those out, (well...).

Keep those requests coming in - let's make my postman earn his strike pay !

***** PUBLIC DOMAIN LIBRARY *****

New items since last list are marked #

PD1/1 (CPM)

CAT3	Single entry per line directory
CLEANUP	File eraser
COMPARE	Compares two files
CRCK44	Produces checksum
LDIR	? (any ideas on this one?)
LISTT	Sends file to printer
LRUN	Run a no. of commands from a library, as if separate .COM files were being run
NSWP	Multiple file utility
NI	Sorted directory with file lengths
SD	Directory utility ('SD //' for help)
PASSWORD	Used with SCRAMBLE
RENAME	Rename with wild-cards
RPIP	PIP with quick repeat
SCRAMBLE	File encryption
SORTV	Alphabetical sort of file
SQUEEZE	Compress file
SUPERSUB	Interactive version of SUBMIT
TYPEL	Like TYPE
UNERA190	File unerase
UNSQUEEZE	Expand compressed file
VLIST	TYPE with variable scroll speed
WHATSNEW	Lists newest files (needs date-stamping I think)

PD1/2 (CPM)

COBOL COMPILER With 32k documentation

PD1/3 (CPM)

Z80ASMUK	Assembler
ZMAC	Assembler
ZLINK	Linkage editor for ZMAC
ZSM	Z80 assembler (with doc)
DEDUMP	File transfer software (.ASM and .COM versions - no doc)

PD1/4 (CPM)

Z8EAMS	Z80 monitor and assembler
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PD1/5 (CPM)

SECRETARY	Word processor
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PD2/1 (CPM)

SMODEM	Smart modem utility
CIRKIT7	Prestel link 2
KERMODE	?

PD2/2 (CPM)

AMSMOD7	Modem utility
MEX	Modem utility (type 'MEX' then 'HELP' for help)
SMARTMEX	Smart modem version of MEX
UKM1275	Modem utility
XMPCPC2	Modem utility for Dart serial interface
CPC-UKM7	Modem Utility
CTL-6128	Lists CPM control codes
HMODEM	Modem utility
MODEM	Modem utility

PD2/3 (CPM)

BANNER	Notice printer
GOTHIC	Sideways banner printer (Sorry - old version was corrupted, this one works!)
COLLOSAL	
CAVE ADVENT	The original adventure game
BIO	Biorhythm generator
BISHOW	? (any ideas?)
CAL	Calendar generator

PD2/4 (CPM)

CHESS	Text version
OTHELLO	Text board game
CUBE	Simulation of 5x5 Rubik type cube
GOLF	Text simulation of golf game
LIFE	Classic game of life
MASTMIND	Guess the computer's word
MAZE	Generates mazes
NEWPUZ	Wordsearch puzzle generator
PINGPONG	Graphic pingpong game (CPM+ only)
PRESSUP	Board game
STONE	African stone game
TICTACTO	Noughts and crosses

PD2/5 (AMSDOS)

25-SQUARE	Rubik cube game
BIOCHART	Biorhythm generator
BLCKJACK	Blackjack card game
BREAK	Snooker quiz game (6128 only)
F4SQUARE	Puzzle game
FAMILY	Family history (no instructions any ideas?)
FLAG-1	Draws Australian flag
FLAG-2	as Flag-1 using FILL command
HIGHLOW	Guess the hidden number
HOROSCOPE	Horoscope generator
JACKPOT	Simple fruit machine
KEYS	Redefine keyboard to give keyword command entry
LIFE-10	Life game
MEMGRAPH	Screen designer (6128 only - needs BANKMAN)
MERCHANT	Space trading game

PD3/1 (AMSDOS)

AMSDIR	Tape cataloguer
CAT	Sends CAT to printer
HOME	Home budget
ICON2	Ascii/Prestel converter
INPUT1	General input sub-routines
LABELS	Label printer
PAPERMAN	Management simulation exercise
PENNYTEN	Pingpong game
PJBOMBER	Bomber game
POLAR	Plots polar equations

QUEST

RAFFLES
SCOSAVER

SPELLING
SPORTMAN
SURFACES
TODAY

TYPTUTOR
USEOFMIN
WUMPUS

Text adventure

Maze game
Game - not working - anyone like to fix it?
Spelling game
Sport management game
Graphic demo
Calculates day names from dates and Easter dates
Typing tutor
Graphic demo
Text adventure

PD3/2 (AMSDOS)

A comprehensive subject index in MASTERFILE format

AMSMAG85
AMSMAG86
AMSMAG87
ODDMAGS

PD3/3 (AMSDOS)

AS PD3/2 BUT IN ASCII FORMAT

PD3/4 (AMSDOS)

BLUE RAIDER Two part text adventure

PD3/5 (AMSDOS)

ROLL	Binary and BASIC versions of scroll RSX
SCRSWAP	Binary and BASIC versions of screen swapping RSX
ROLL.DEM	Demo for ROLL RSX
SCRSWAP.DEM	Demo for SCRSWAP RSX
FCAT	Binary and BASIC versions of directory to ASCII file RSX
RSX-ART	Ascii file with instructions for above programs
ROMREAD	Saves rom as binary file
AMSTRAD.DSK	Details of connecting 2nd drive
PSU.DOC	Construction details for 2nd drive power supply
DC	Drive interface construction details
DISK	Disc menu
BBLIST	List of bulletin boards
BBDOC	Ditto
BENDS	Calc developed length of bent metal (needs Supercalc2)
IMPSPRIN	Spring designer (needs Supercalc2)
#FONTY	Font designer
#AMSFAX	Teletext simulator

PD4/1 (CPM)

DS	Sorted and extended directory
MDIR	Sorted and extended directory (with .doc file)
NULU	File manager
ADJUST	2nd drive parameter patch
FORTH	8080 Fig-Forth 1.1 compiler (no documentation)
FORTH	MVP Forth compiler with documentation
MIKEDIT	Wordstar like editor
MLOAD	?
UNLOAD	?
LU	Library utility (no doc)
MAKE	?
QWIKKEY	?
UNSPool	?

P D L I B R A R Y

WC	Ascii text file word-counter (with doc)	PD6/3 (AMSDOS)	*****
ERAQ	Easy erase (CPM2.2 or CPM+)	#UNIX SHELL	Comprehensive documentation
ZAP35	Superzap disc sector editor	PD7/1 (AMSDOS)	*****
TYPWRYT	Computer emulates a typewriter	#ELECTION	Programs to analyse and predict elections (6128)
PD4/2 (PROTEXT - CPM or AMSDOS)	*****	#RANDOM	Random access programs (6128)
STD dialling codes - very comprehensive		PD7/2 (AMSDOS)	*****
PD4/3 (ASCII - AMSDOS)	*****	#CASSLAB	Cassette label designer and printer
STD dialling codes - very comprehensive		#D-CAT	RSX to list file attributes
PD4/4 (CPM)	*****	#GRA-MEM	Graphically displays memory usage
DAZZLESTAR	Full featured disassembler (needs 2 drives)	#DISC-RSX	TYPE, DUMP (as in CPM) and INFO on file length etc
PD4/5 (CPM)	*****	#SIDEWAYS	Prints ASCII file sideways (NB max 60 lines)
PCFILE	Database + documentation (not tested yet!***)	#LASBALL	Breakout with a difference!
CRUNCH	File compressor	#CHRDESIG	Character designer
UNCRUNCH		#HELPWNO	Window designer
PD5/1 (CPM)	*****	#KEYDEF	Utility for UTOPIA ROM owners only
SCRIVENER	Data merge program (see CPC USER, Issue 10)	#MENU	Utility for composing menus
PD5/2 (CPM)	*****	PD7/3 (AMSDOS)	*****
VDE	Text editor	#PASCALDEM	Selection of Demo programs written using Hisoft Pascal (including source files)
INVENTORY	Database - originally designed for catering but flexible enough for other uses.	PD7/4 (CPM)	*****
SORT	Alphabetical sorts a text file	#MLOAD21	?
SPELL	Spell-checker with editable dictionary	#NULUI1	Update of library utility - lots of documentation
PD5/3 (CPM)	*****	PD7/5 (CPM - MBASIC)	*****
MBASIC	The standard PD BASIC (CPM+ only)	#KPFLY	Flight simulator (not configured for CPC)
PD5/4 (CPM)	*****	All programs below require MBASIC.COM, which is included on this disc	
PASCAL	Pascal compiler - lots of documentation and examples	#TIMER	Appointment manager
PD5/5 (CPM)	*****	#LESSON1	Tutorial on BASIC variables
CREATOR	Database (requires MBASIC - on PD5/3) - CPM+ only	#SPAD	Notepad wordprocessor
REPORTOR	Report generator for CREATOR	#KOLOSSUS	Artificial psychiatrist (not configured for CPC)
#ACCOUNTS	Small business accounts programs (must have DBASE II)	#SIMULAT	Small business simulation
PD6/1 (AMSDOS)	*****	#DC10	Flight simulator (not configured for CPC)
#MEMBERS	Database (needs BANKMAN)	#SEQU	Sequential database
#PAYROLL	Calculate pay statements (needs BANKMAN)	#TEACHER	Set up class tests (not configured for CPC)
#PORTFOL	Record shareholdings	#DRAW	Drawing utility (not configured for CPC)
#DIARY	Diary program	#MATH	Maths tutor
#ENCODE	Encrypt messages	#XMAS	Quiz about Xmas
#DECODE		#VOCAB	Vocabulary tester
#POINTERS	Prints useful characters	#FIREMAN	Firefighting game (not configured for CPC)
#ELECTBIL	Calc electricity bills	#RENTAL	Rent management
#CHIMES	Realistic simulation of chiming clock	#SIAI	Simulated artificial intelligence game (not configured for CPC)
#BANKDBSE	Database - needs BANKMAN	PD8/1 (AMSDOS)	*****
PD6/2 (AMSDOS)	*****	#TAX	Expenses manager for Equity members - easily adapted
#UNIX SHELL		#WALES	Tourist guide

HOW TO ORDER:

1. Each of the sections above will fit on one side of a disc so send enough discs! eg if you want all the PD library then send 16 discs.
2. Please make sure the discs are blank and in VENDOR format.
3. Use a padded envelope and enclose correct stamps for return postage otherwise I cannot return your discs!
4. Enclose your address and tel no (in case you've forgotten point 3!)
5. State which software you require, eg PD1/1 and PD3/2. I cannot supply individual files.
6. If you haven't got a disc drive then you can still order software (but not CPM please!) by sending a long enough tape.
7. If you would prefer, then in place of each disc you can send £3.50. This will cover the costs of jiffy bag, disc and return postage. Cheques and postal orders should be made payable to the UAUG and crossed. Please do not send cash.
8. Requests are normally processed same day. However work and (rarely) holidays can cause delays.

Most of the documentation files have been compressed to save disc space. This is indicated by a "Q" as the second letter of the filetype, eg READ-ME.DQC would be a SQUEEZED version of READ-ME.DOC.

These can easily be converted into normal ascii with either UNSQUEEZE or NSWP on PD1/1 so you should order this section of the library first.

SEND ORDERS TO:

John Blessing
26 Chichester Close
West Wellow
Nr Romsey
Hants SO51 6EY

PD SOFTWARE REVIEW

UNIX ON THE CPC

UNIX is an operating system usually found on very high powered multi-user computers. The following article summarises a set of programs which simulate UNIX on the CPC. These programs, which are collectively referred to as the Centrox Operating System, have been written by Andrew Cope and can be found on PD 6/2, with masses of documentation on PD 6/3. I've taken the liberty of lifting the material below from that documentation.

John Blessing

[Editorial Note: Although CENTROX is introduced in a separate article published in this Issue of CPC USER, the following summary gives an extra viewpoint and may help readers to a better understanding of the system]

CENTROX

Centrox provides the CPC user with a reasonably accurate imitation of the UNIX operating system environment. In effect it can be thought of as a UNIX shell. Centrox will operate with single or double drive systems. With single drive systems, Centrox will prompt for the changing of discs when necessary.

Note, however, that due to the "quirks" of AMSDOS, single drive users may frequently be dumped into BASIC with the error "Disc changed...etc.". Simply press <CONTROL>+<F9> to continue.

1.1 Disc Organisation

Centrox provides the user with a simple means of keeping their files in order. The system works something like the indexing used in a library. The main catalog may be divided into sub-headings; i.e, Sport, Science, Poetry. Each of these headings may also be subdivided. Sport may, for instance, be divided into: Football, Skiing, Racing, etc.

Centrox allows the user to set up such a filing system on the disc when saving files. The only difference is that the term "directory" is used instead of "heading". In effect, the file structure looks like a "family tree". Like a family tree, two files cannot exist with the same name in the same directory - two people sharing one name in a family would be pretty confusing for all concerned!

However, files can share names if they are in different directories. These rules apply also to directory names. It is recommended, however, that duplication of file and directory names is avoided - the computer doesn't mind, but you may get confused!

Obviously, when the user wishes to access a file, he must inform the computer of its location. There are three main ways of doing this; they are outlined below:

1.2 Absolute Pathing

With this method, the route from the "top" of the directory tree is given. In library terms this would be the same as: Recreation/Sport/Skiing/Skiing made easy. In order to differentiate this mode, the path name is prefixed by a slash (/).

1.3 Relative Pathing

With this method, a special concept has to be introduced. At any giving moment, Centrox assumes that the user is "in" a particular directory (with the library analogy, they are looking at a particular section). Relative pathing involves giving the path from this directory - known as the current (or working) directory.

1.4 Implied Pathing

This is really just a form of relative pathing. In this case no directory path is given and Centrox simply looks in the working directory for the file requested.

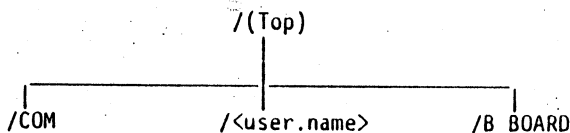
1.5 Special Abbreviations

"-" Means "home directory". Centrox always places a user in their own directory (which will share their user name) when they first log on.

".." Means "parent directory". This in effect moves up one directory; i.e., closer to the top of the tree.

Note that absolute pathing is used to describe a directory outside the operating system - i.e., in a conversation or book. It is distinguished by the prefix "/".

1.6 The Standard Tree Structure



1.7 Directory Descriptions

1.7.1 The "/COM" Directory

This directory contains all the system overlay files (known as Transient Programs). These are simply programs which for various reasons (usually lack of memory) cannot be kept in the computer with the operating system. Typical examples are:

TX - a TeXt editor
 COMP - a COMpiler
 MV - a program which MoVes various items.

1.7.2 The "/B_BOARD" Directory

This directory should act as a kind of bulletin board. A bulletin board is a group of text files which contain assorted comments from various users on different topics. In effect a typical bulletin board becomes a forum for a wide variety of discussions. The Transient program "BB" may be present on your disc. If so, it will make using the bulletin board that much easier.

1.7.3 The "/<user.name>" Directory

This directory will not usually contain any files, except for command files generated by compilers. It is the user's "home" directory. This is the directory in which the user will be placed when he signs onto the system. Unlike the other system directories, which are stored on the system disc, all user directories are kept on the user disc. This reduces problems with security and gives each user almost exclusive use of the 178K of a data disc.

1.8 Creating Additional Directories

Obviously, some facility exists to allow users to create their own directories. These directories can be kept on the system disc or the user disc, but it is recommended that the system disc should not be used, as it is shared with other users, and there may be memory limitations.

1.9 Command Entry

The general form of a command is:

```
D<command.name>[<list:<selector>>]
[<list:<argument>>]
```

The arguments are additional information which is needed by the command being invoked. Arguments can be numeric, string or identifiers. The only limitation is that the arguments must be constants - expressions will not be evaluated. The selectors are required by some commands to set up special conditions or change default settings. Identifiers, as the name implies, serve to identify objects such as files, directories etc. String arguments must be enclosed in double quotes. It is essential that one AND ONLY ONE space separates each of the command line items. Commands take different numbers of arguments and not all commands have selections. If additional arguments are passed to a command they will be ignored. More care needs to be taken with selectors as additional selectors may generate errors. One exception to the rule of additional arguments is that some commands allow the user to specify several arguments in order to perform the operation on several different items; for example:

```
DCAT file1 file2 file3
```

Will display the contents of all three files, one after the other without a break.

Centrox does not distinguish between upper and lower case letters. The only time that it becomes important is when specifying directory names or string arguments. Several commands may be specified on one line by separating each command sequence with a semi-colon (;). If an error occurs in a multi-statement line, Centrox will abandon execution and display the command line, with the last character it read highlighted. This shows the user how much of the line was

executed. Centrox will also display reports and warnings after most commands. These appear in the same format as error messages; for example:

D<command.name>:<error.message>

Centrox keeps a record of the last twenty command lines entered, and one of the commands available allows these commands to be recalled, which can save typing effort and time. Another useful feature is the ability to program Centrox to substitute particular phrases for other phrases. This is known as command aliasing. At its simplest level, this allows a user to select new names for commands, perhaps because a similar command exists on another computer. At a more complex level, the user can build up completely new commands, possibly making significant changes to the apparent operation of the system. Note that the keys [CTRL+C], when held down for about one second, will abort any external command. They will also abort certain internal commands, but this is not recommended.

Also, the keys [CTRL+S] if held down for about one second will prevent text output on the VDU, and hence pause any program when text output is about to occur. The key sequence [CTRL+Q] should re-start text output.

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UPGRADES

Any user wishing to obtain an upgraded version or additional information is welcome to do so by writing to Andrew Cope, 9 Church Drive, Rhos-on-Sea, Colwyn Bay, Clwyd LL28 4LL.

Please enclose the required return postage and note that discs should be sent in a padded envelope with a second padded envelope enclosed for the return of your disc.

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COMPETITION

COMPETITION TIME

Results of Competition Number 8

The winner of competition number 8 was Mr A Duncan (0007) who correctly answered the five questions on printers. Tasman's Tasprint is on its way to him. For those of you who are interested the answers are given below.

- (1) Q: Name three types of Impact Printer.
A: There are quite a few for example: Dot-Matrix, Daisy Wheel, Line Printer, Golf Ball, etc.
- (2) Q: Name two types of Non-Impact Printer.
A: Again, there are a few: Laser, Ink Jet, Thermal, etc.
- (3) Q: How many characters per inch are printed in Elite Font?
A: 12 cpi.
- (4) Q: Would you expect a Dot Matrix Printer to be faster than a line printer?
A: Not usually.
- (5) Q: What are the two most common interfaces for printers?
A: Centronics Parallel & RS232 Serial.

Competition No 9

WIN: >>> STAR QUAKE By Bubble Bus <<<

HOW TO ENTER...

Find the words below in the Word Search; they may be spelt forwards, backwards or diagonally and are all concerned with Networks. Then cut out or photocopy the Grid and return it to the address below, not forgetting to mark your entry with your Name, Address and Membership Number!

Send your entries to: Seamus Delaney,
Competition No 9,
91 Fairfield Ave,
Fareham,
Hants. PO14 1EN.

Please note this is the new address for competitions.

RULES...

1. All entries must be received by 1st November 1988.
2. The winner will be the first correct entry drawn from the box.
3. Only one entry per member is allowed.
4. The competition is open to all current UAUG members.

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Q S N G F D B S C H A N N E L F G L E O P E N T Y I L O C O T O R P
P O S I U Y T U R E W Q A S G D H L A Y E R A F H J J K G E H D S C
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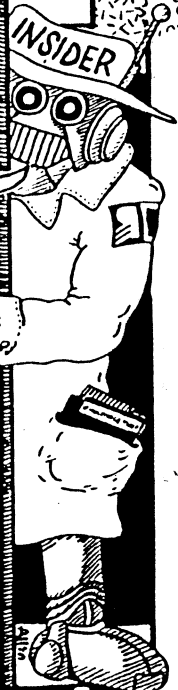
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The United Amstrad User Group was founded in 1986 by a handful of dedicated CPC enthusiasts. Membership now extends throughout Britain. The continuing success of the Group is due to the low membership subscription and five-star service; this includes:

- * Bi-monthly magazine
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The bi-monthly magazine is written by CPC users for CPC users and contains authoritative reviews and articles, as well as other regular features specific to the Amstrad CPC computers. The magazine also provides three help lines: Mailbox (for general correspondence, member-to-member contact, etc), Keyboard (for resolving members computing problems) and Monitor (a members' complaints bureau). The magazine carries trade and member advertisements; members ads are published free of charge.

The computer book library is operated by post and is open to all members. Books may be hired by the month for a nominal fee. Most of the books have been donated and are specific to CPC computers.

The public domain software library contains many programs covering games, business, educational, utilities and programming languages. The library is open to all members and is free of charge.

The discount service to members is extensive. Companies offering discounts to members include Durell Software, Siren Software, HSV Computer Services, Micro Prose, Timatic Systems and Alligata Software; discounts range from 5% to 35% or more, and include games/business software, hardware, discs, disc storage boxes, listing paper and printer ribbons. In addition to arrangements with traders, the UAUG also maintains a small stock of joysticks and games/business software at prices substantially lower than retail.

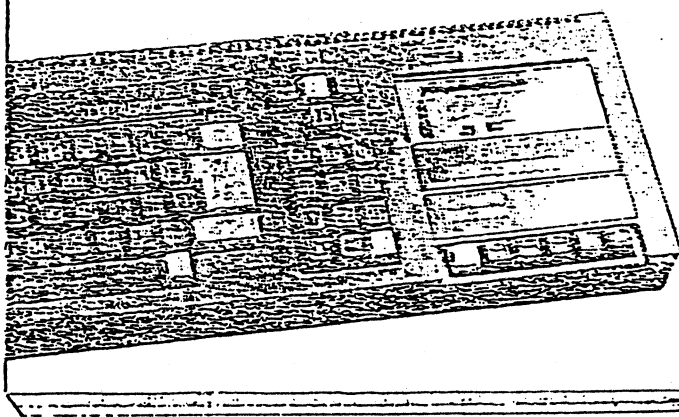
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CPC USER is published on the first day of February, April, June, August, October and December.

Contributions and other material for publication should be sent to the Editor by the first day of the month preceding publication.

