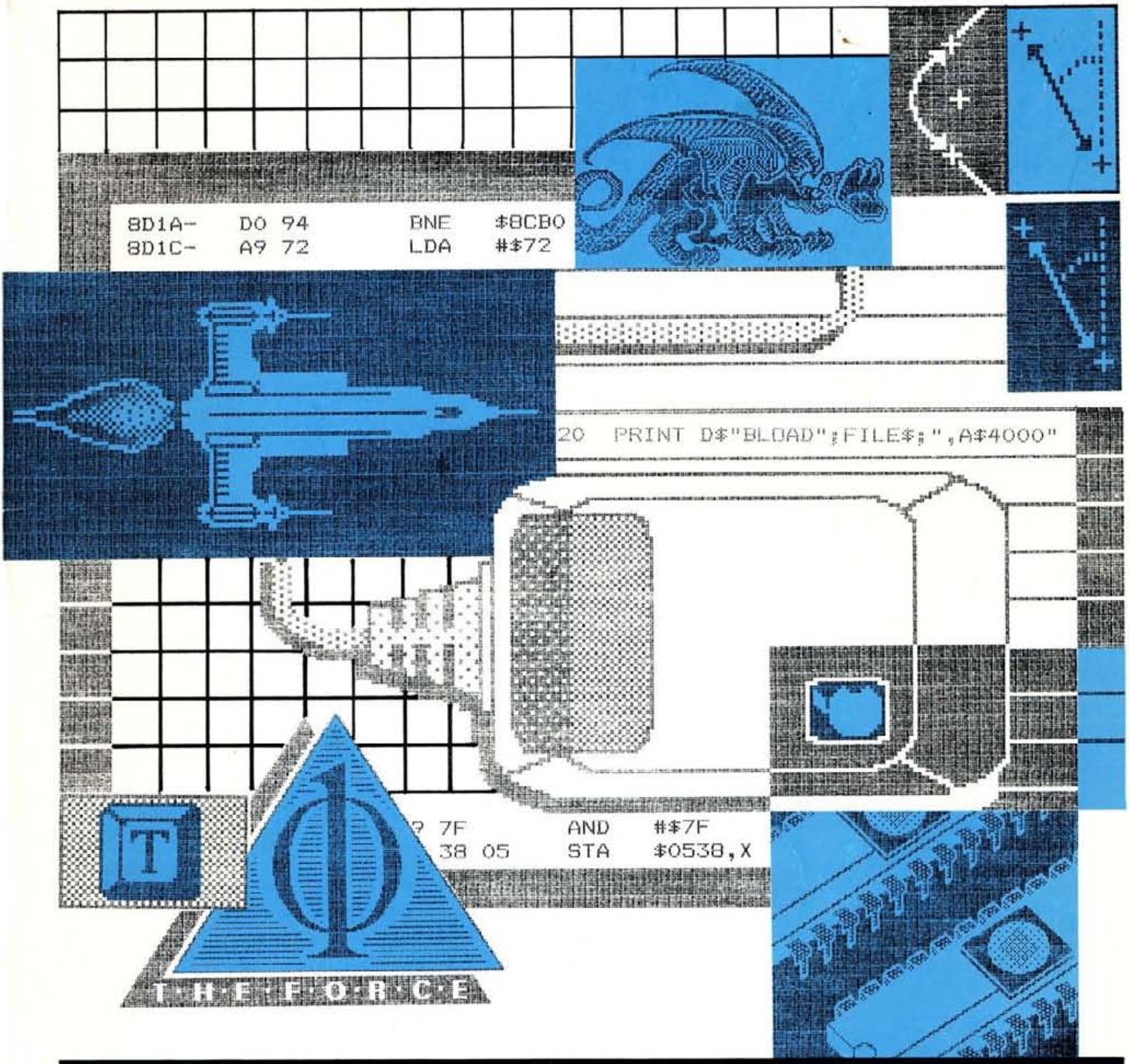
hardcore

February 1986 Volume 6(1)



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HARDCORE

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Features

Apple announce MacIntosh Plus.

A wolf in sheeps clothing.

1 Meg RAM - 128k ROM - Double Sided 800k Disk
New Keyboard - New SCSI Interface

Full report on Apple launch - page 4

DIY Workstation

A useful piece of furniture.

All you need to know.

FLIPPER 1Meg Apple][Board

Wham - the Apple][heads off in to space.

Full review - page 7

New Bulletin Board

BABBS Mk2 - now in a class of its own.

Report on this BASUG service.

Appleworks Feature.

Setting up Flipper - Five Books - Hints & Tips

See Contents on page 2

Disk Zaps (Part 1)

A beginners article on 'Disk Manager

New series

Beginners BASIC

A new series on using BASIC

For the experienced and not so experienced.

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Please send any contributions to P.O.Box 177, St Albans.

Editorial

Well I have rewritten this at the last minute, your Hardcore is packed with features this issue, I just hope the photographs come out all right !!!.

The new member of the Apple family has been officially released and with it a new air of expectancy over what Apple will do next.

During January the committee have been hard at work firstly liaising with Apple and also getting things ready for the Apple Show 86 in March and the A.G.M. in April. Details of all these events are published in the journal and you will also notice that you have the audited accounts for 1984/5.

Here at my desk I feel that at long last the group has got back on its feet after many upsets and like Apple we intend to make 1986 a turning point in our history.

Thanks to all those members that responded to the last Hardcore with articles and comments. I hope that you will forgive the 42 spelling/grammar mistakes that appeared and the two large errors in the Hotline Number and the date of the meeting at Bewdley. Yes - we all make mistakes and I can't blame the computer - it was human error and I put my hands up to it.

Now Apple have left the garage and are getting out in to the fast lane again I am happy to report that the committee had a very worthwhile meeting at Apple (UK), where views were exchanged in a very constructive way. I hope to be able to report further in the next Hardcore.

Right I hope you all enjoy this issue and also hope to see as many of you as possible at Apple Show 86.

END

April 1986 Issue
Copy Date March 5th

Due to circumstances beyond our control we did not publish the DS3 Authors name and the address of Greengate. We apologise to Colin Holgate for this error. The address of Greengate is:
Greengate Productions,
24 Missenden Drive, Hemel Hempstead, Herts, HP3 8QR.
Telephone: 0442 3496

Committee News

BASUG ACCOUNTS

YEAR ENDED 30TH JUNE 1985

Along with this issue of Hardcore, all members will have received a copy of the Club's accounts for the financial year 1.7.84 to 30.6.85.

I hope you will agree that they show a marked improvement on the previous years' results. I hope, too that the charts at the front of the accounts help you to better understand the figures.

The accounts as presented are a straight copy of the documents presented by our accountants, Buzzacott & Co. I prepared the charts from the data in the accounts, using a Bitstik.

The improvement in this year's figures is the result of the efforts of the committee during 1984/85, and the new committee which took office at last year's AGM are determined to continue this trend.

The one item of cost that seems to me to stand out in the 1984/85 accounts is the Auditors' fee, which has increased over the previous year. The auditors' fees in the accounts are always included as an estimate of the final costs, as the full workload is not known until the exercise is completed. The costs of the 1983/84 audit were underestimated, the final charge for the year including some consultancy fees for advising the committee on such topics as a better accountancy system and Companies Act requirements in addition to the preparation of the statutory accounts. The difference between the estimated and actual fees has been charged in the following year, so that there appears to be an increase in costs in 1984/85.

The subject has been discussed with the auditors, and we have taken steps to ensure that as much work as possible is completed internally before data is passed to them for audit. They are satisfied with the standard of our present records, and anticipate a reduction in their costs for the year 1985/86.

You can be assured that your committee are making every effort to ensure that this favourable trend in Basug's results continues, and that we are looking forward to providing an even better service for our membership.

I hope that you will find the enclosed accounts as encouraging as I do.

Irene Flaxman - Treasurer - BASUG

END

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Macintosh Plus
The IBM killer !

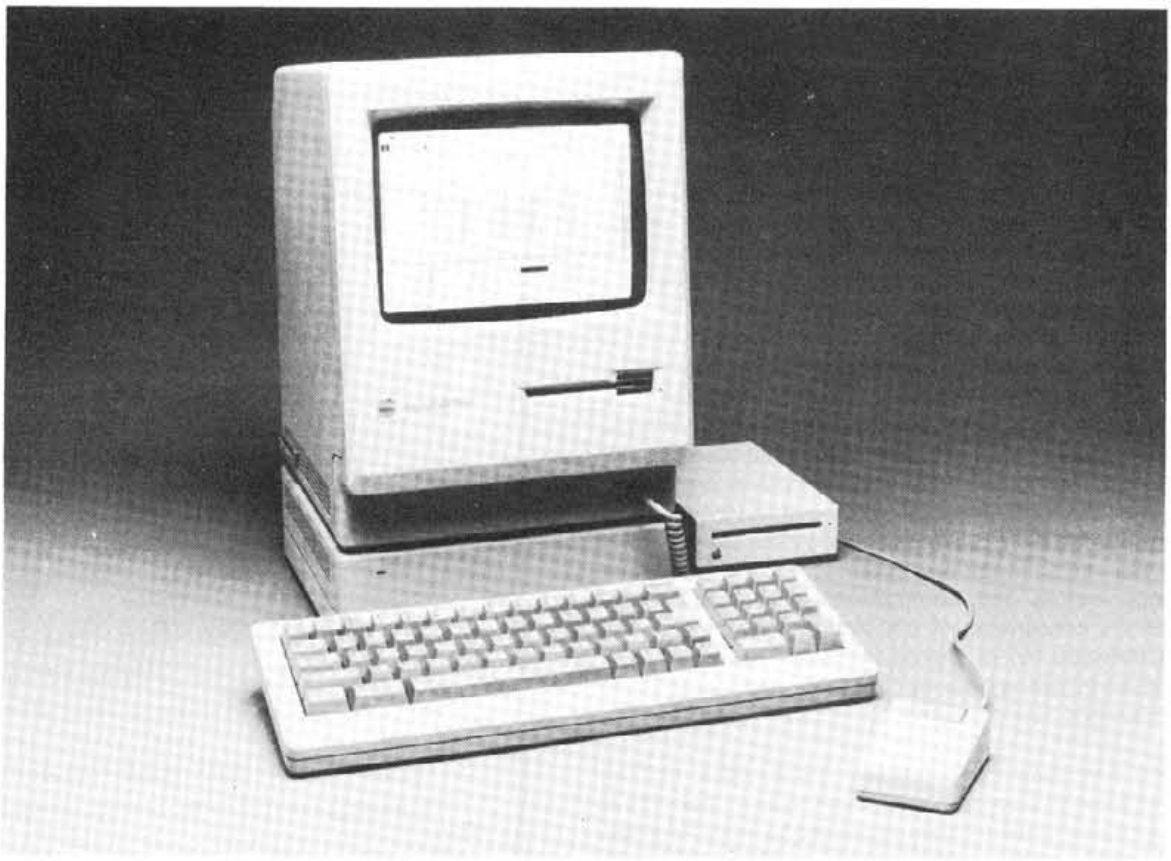
MacIntosh Plus. The wolf in sheeps clothing.

The MacIntosh Plus is ready to do battle with any business machine, this new entry into the business market will prove at last that the Mac is no mere toy.

The new main board has 1MB of RAM, 128k ROMS and the ability to talk to outside devices via a SCSI port (Small Computer Systems Interface) at a useful speed.

The layout has been changed and working from left to right we have the speaker connection followed by the usual Mouse and External Drive. The new SCSI interface in the form of a DB socket is next and then comes the printer and modem port which are now in the form of DIN 8 sockets. These sockets are also used for AppleTalk connections. DIN 8 to the old DB9 adapters are supplied with upgrades.

The new main board has 1MB of RAM as standard and allows the upgrade without board swaps to 4MB, the extra memory allows for several applications to be readily available in the Switcher environment. The 128k ROMs have allowed some enhancements of the Font Manager and Quickdraw routines, this together with the new Hierarchical Filing System (HFS)



The new 800k drives are double sided and run faster. The keyboard has cursor keys, numeric keypad and a slightly different layout. The rear of the machine has now got the industrial standard SCSI interface which allows up to seven devices to be daisy chained and means that the Mac is now opened up to third party hardware.

From the front the machine looks the same except for the new 'Macintosh Plus' logo. However turn it around and the back panel is different.

allows for an increase in speed of 30%. The HFS is not limited to any specific number of files and therefore is only limited by the amount of storage space available.

The new ROMs also contain a RAM caching system which allows Users to allocate memory space as a disk cache. The RAM cache is operated from a new Control Panel and allows software code or data to be placed in RAM and reduces the amount of disk access. All the memory is configurable using the new system software.

The new board allows the use of a quick interface called the SCSI, this interface operates at six times the speed of the external disk drive interface and allows up to seven devices to be daisy chained. The SCSI is the beginning of open architecture for the Mac, this approach will allow many more hardware products to be produced by third party manufacturers and will help make the MacPlus a third generation Apple][.

The disk drive is an 800k double sided device which runs twice as quickly as the old 400k drive. The new drive is compatible with the old one so there should be no worry about software already purchased. The new system allows the user to initialise one or both sides of a disk and means that old disks will now be able to hold an extra 400k.

The keyboard contains 78 keys and is the same height as the old one. It now includes cursor keys and a numeric keypad. The layout of the keyboard has been changed slightly and keys have now lost the old icons to be replaced with letters like 'Return".

At the right hand side sits a numeric keypad similar in looks to the old add-on version. The cursor keys have been placed at the bottom right-hand side of the normal keyboard and these will make using spreadsheets and word processors easier.

The return key has been enlarged and now looks more like the old American version. Other changes include the enlargement of the option and command key and the placement of the enter key on to the numeric key pad. The space bar is smaller to allow the cursor keys to sit to the right of it. The feel of the keyboard is almost the same as the old one, very crisp. Trying to compare is difficult because my own keyboard has taken a fair amount of punishment and is quite slack now.

MacNormal 128k or 512k to MacPlus.

Many members who already own Mac's will like the news of an upgrade path and I put the question of how Users with non-Apple upgrades would fair. Again Apple have good news, the upgrade path is available to those with 512k non Apple upgrades - however more of that later.

The upgrade path is via three separate upgrades:

1. Macintosh Plus Disk Drive Upgrade.

The first upgrade is to change the ROMs and the old drive - this allows full Software compatibility with the MacPlus and gives the benefits of a full upgrade without the extra memory and SCSI interface. You therefore get a new set of ROMs, a double sided 800k disk drive, a system disk and a manual. You need this upgrade to use the new 800k external drive. The cost has not been announced yet but in the U.S. it will be around $300. This will be the first upgrade kit and essential before anything else can be done.

2. Macintosh Logic Board Upgrade.

The next step after you have had the disk drive upgrade is to have the second upgrade which is a logic board swap. This entails the New ROMs from the first upgrade being placed in a new logic board containing the 1MB. You also get a new rear housing containing the new SCSI interface, a cable adapter for the new DB8 sockets and a MacPlus Owners Manual. After this upgrade you have a MacPlus minus the keyboard. The prices are not announced yet but in the U.S. the price is put at between $600 and $800.

3. Macintosh Plus Keyboard.

The last stage of this upgrade path is the new keyboard, this will allow you to use the cursor keys with new software. I should point out that you can actually use this keyboard once you have the new ROMs. The price is again not fixed yet, but in the U.S. they are talking of about $125 - $150.

Before you all get worked up about this remember US prices are nowhere near UK prices and hopefully Apple will try and stick to 1.4 dollars to the pound.

Upgrade Policy.

The obvious worry for non Apple upgrade owners has been in my opinion solved very well. At the Press Launch on the 14th January Apple said the prices for the new logic board will be structured . If you at present own a Mac 512k or an official upgrade then you will pay £?. On the other hand if you have a Mac128k or an unofficial Mac 512k you will pay a higher price for the upgrade. This approach certainly allows users of unofficial upgrades to come in from the cold and I think that Apple have approached the whole question of upgrades with a sympathetic view and look forward to seeing the new prices.

Many of you will have read the exclusive review of the MacPlus in P.C.W. Well in the next Hardcore you will be able to read a no-holds barred review, Apple have kindly offered a machine for review. I have used the machine for about an hour at the press launch, and was amazed at the speed increase when using the new HFS to load and save files. My first impression was one of quite delight, it is nice to see an Apple operating better, faster and with more ease than an IBM. So look out IBM - Apple have left the garage and are heading towards you in top gear.

END

STOP PRESS

Prices look like being as follows:
Drive & ROMS £220
MacPLUS Board for 512k £450.
128k or non-Apple 512k £550.
Keyboard Swap £95. all req 15% V.A.T.

?

THOSE WERE THE DAYS
Confessions of a keyboard junkie

Those were the days, the heady days back in 1980, when a disc was something you slipped ... that I first got smitten by the computer bug.

I remember it well, I was sat down in front of a funny looking machine called a PET, and instantly I was hooked. When I got home, I devoured all the magazines I could lay my hands on, until the great day that I was able to bring home the large cardboard box with the red Apple on the side.

Eagerly I unpacked the cream beast. It was an Apple][, and it had cost me £950. It was not you appreciate an Apple][+ or even an Apple Europlus, but the bog standard Apple][with Integer Basic. However I had been lucky, the dealer had given me as discount an Applesoft Language card so I could run things other than Startrek. That was one of those hungry slots filled inside the machine!

Luckily, I had bought a cassette machine already, so I was able to load and run the demo programmes packed into the box by Apple. Imagine my surpise when one of the demos actually played a tune .. I had no idea there was any means of making a sound inside the thing, remember my first experience was with a PET!

Soon the 16K of memory became too small for me. I wanted to access that second Hi-Res page. You see all you got for your £950 was 16K of RAM ... So off I went and bought two sets of 16K RAM chips, at £65 a set, and now had 48K of glorious RAM to play with ... more than anyone could ever need ...

Well you can imagine what happend next. After spending 20 minutes saving and loading that adventure program in NIBBLE to the cassette, I had to have a disc drive. That was another £275 for the drive, and £65 for the card, and then to cap it all, I had to pay £35 for ten discs! But at least the discs would last me a long time, or so I thought.

It was not long before I saw someone copying a disc using two drives. That meant I had to have another drive. Off I went to London, and eventually found the house in a back street of Streatham, where I had heard there was a small new firm selling Apple peripherals. My first contact with Pete and Pam .. That meant another £250 and I had a second disc drive.

It was all uphill from there on, more discs to feed the hungry drives. Z80 cards and 80 column cards to feed the hungry slots. 16K RAM cards to give that extra bit of memory. Lower case adaptors, serial cards and goodness knows what, they all poured in the front door looking for a home. The problem then was where to put all the cards, I only had eight slots!

Some years have passed since then, and Call -151 is firmly embedded in my subconscious. However, now they tell me, that you can get a portable Apple. It has a built in disc drive, and a spare one in case that goes wrong. A whopping 128K of RAM, who on earth needs that much! It has all the keys on the keyboard, no need to be clever now to get ']['' on the screen. It even has a mouse to keep the crumbs from the insides! And no need I understand for you to find that elusive dealer that sells monitors, as one comes with it. All that for £999. I do not believe it.

They will tell me next I can plug an extra 1 megabyte RAM in my Apple][if I like. Or even shrink the disc drives to 3 1/4 inches. Pigs will fly .... at least they will, when they have finished scrumping!

Ewen Wannop

END

Tips & Tricks

//C ROM Update:
How to recognise installation without disassembly.

Question: How do you recognise whether or not the new ROM for Unidisk 3.5 is installed in the Apple //c without disassembling the system?

Answer: When upgrading a //c, a dealer will affix a small sticker with a 3.5 disk icon on it over the disk connector of the IIc. If the sticker is missing and the system is up, the ID byte can be read. On an upgraded //c $FBB3=$06, $FBC0=$00 and $FBBF=$00. Dead systems must be disassembled to check the part number of the ROM. The new ROM part number is 342-0033. The serial number of the first production //c with the new ROM is unknown.

//c: New 256K ROM Add-On Kit

WHAT: An upgrade to the //c ROM including:
Support for UniDisk 3.5.
Enhanced Super Serial Card compatibility.
XON/XOFF handshake support.
Disable keyboard during serial communication .
Add/Strip line feeds after CR during transmission.

Bug Fixes Interrupt handler . 80 column card
The language card was not always reconnected properly.
The Y register was not always treated properly.

Additions Mini Assembler. STEP and TRACE added as debugging aids.

WOW - WHAT NEXT

END

FLIPPER 1 MEG RAM BOARD.
A review by Dave Ward.

Back in the distant past , to be exact , 1980 when I purchased My Apple][Plus 48K the extra 16K expansion card at that time would have cost a mere ! £190. Of course 16K Ram expansions cards have slowly reduced in price to £70 or even less.

Now Cirtech have produced a 1 Megabyte Ram card for £350 , yes £350. I have been fortunate during the last few weeks to have had one of these cards to 'test'.

The FLIPPER arrives in a small box with a small manual and a single diskette. The board is very heavy but only a little longer than a Saturn 128K ram card. Chapter 2 of the manual gives step by step instructions for installation of the card which is very thorough and easy to follow.

The card may be placed in any of slots 1-7 on an Apple][Plus or Apple //e , however there are some exceptions which should be noted:

1> Slot 3 cannot be used in an Apple //e if an 80 column card is installed in the auxiliary slot 3.
2> If you have an enhanced Apple //e it is advised that you place the card in slot 7 as it can be auto-booted from there.
3> If you are going to use Pascal 1.3 you should place the FLIPPER in slots 4,5 or 6 so that Pascal 1.3 will recognise it as a Ram disk.

Once installed it is suggested that you might like to try out the self -test program on the card. However , this can be done at any time providing that the machine is displaying the Basic] prompt or Monitor * prompt.
Beware when using the self-test as it erases all data from the FLIPPER.

The table below shows what you enter depending upon which slot the FLIPPER resides in :-

SLOT	BASIC	MONITOR
1	CALL 49418	C10AG
2	CALL 49674	C20AG
3	CALL 49930	C30AG
4	CALL 50186	C40AG
5	CALL 50442	C50AG
6	CALL 50698	C60AG
7	CALL 50954	C70AG

Of course you must press 'RETURN' after entry ! The self-test will take about 1 minute and will continue until you press a key.

The FLIPPER is a 1 Megabyte Ramcard designed to be a fast mass storage pseudo disk. It also has a Program Manager which partitions the card into 1-4 protected 'work-areas' which are really smaller pseudo disks.

FLIPPER automatically supports Prodos, Pascal 1.3 and Cirtech's CPM Plus. D.O.S 3.3 is supported by a simple one-time command issued from a program or directly from the keyboard. Pascal 1.1, Pascal 1.2, CPM 2.20B and CPM 2.23 are supported when file(s) are transferred from the Program Manager disk to the Pascal or CPM boot disk . The FLIPPER is formatted to Ram disk(s) of varying sizes.

The Program Manager disk is a multilingual disk that is not copy-protected. When booted The Program Manager is almost instantaneously run. This program allows you to partition the FLIPPER into 1-4 work-areas. It simply requests you to enter 1-4, after which the Main Menu is displayed:

MAIN MENU

1> Select a work-area
2> Backup a work-area to disk
3> Restore a work-area from disk
4> Clear a work-area

Selecting <1> may ask for the workspace number you require. If the 'Ram disk' work-area you have chosen is BOOTABLE! it will be booted otherwise you will be requested to enter a disk in drive 1 which will be booted.

A WORK-AREA IS THEREFORE A RAM DISK THAT IS BOOTABLE OK ?

Just booting a disk into a work-area does not make it automatically bootable. You have to format it and make it bootable but we'll discuss that a little later.

So how does one FLIP between workareas ? Well its like this : on a //e press 'open-apple control-reset' followed quickly by 'control-reset' which leaves you in BASIC then type PR#2 (FLIPPER in slot 2) and you will be in the main menu of the Program Manager.

On a][Plus getting out of a program can be 'hit and miss' since some programs lock-you-in however try 'control-reset'. A copy card such as Snapshot or Wildcard almost ensures a perfect exit but may leave you in the Monitor . If so type E000G which puts you back into BASIC and then type PR#5 (FLIPPER in slot 5).

If you choose not to work under the Program Manager you will have a 'Ram disk' up to 1023.5K. Under control of the Program Manager the 'Ram disk work-areas' will vary in size depending upon the number of 'work-areas' you choose:

No. of workareas	Size in Kilobytes
1	1016
2	508 508
3	340 340 336
4	256 256 252 252

We will now look at the way the FLIPPER works with the afore mentioned operating systems:

PRODOS

Booting a Prodos disk automatically provides a formatted 'Ram disk' once you invoke a Prodos command such as LOAD or CAT etc. Its name depends upon the slot in which you placed the FLIPPER for example:

FLIPPER in slot 2 produces /RAM2
FLIPPER in slot 5 produces /RAM5

Simple eh ! You can make your 'Ram disk' bootable by firstly formatting it using the FILER program from the Prodos Users Kit and then copying across the file PRODOS and any others that are necessary. To boot the 'Ram disk' type PR#4 (FLIPPER in slot 4) just like you would if you had a Disk][in that slot. Of course, if you are working under the Program Manager you will end up in the Main Menu from which you can select the appropriate 'work-area' to boot from.

Incidentally if you boot another Prodos disk (except by switching off the machine) you will find that the programs are still there!

Appleworks can be greatly speeded up by copying the files from the Appleworks program disk to your 'Ram disk' and then renaming it /APPLEWORKS. EG RENAME /RAM2/,/APPLEWORKS/.

Yes you can rename volumes just like files under Prodos. When you bootup the the Appleworks boot-disk it will automatically use your ' Ram disk' for its overlays and screen menus thus making Appleworks considerably faster. The manual does not give an example of loading a 'Ram disk' even for Appleworks. However, there is another article in this issue which tells you how to setup Appleworks.

DOS 3.3

After booting a D.O.S.3.3 disk you can activate two 'Ram disks' by issueing the command IN#4 (FLIPPER in slot 4) either from inside a program or directly from the keyboard. The two 'Ram disks' can be accessed by appending ',S4,D1' or ',S4,D2' to the end of Dos commands. The size of each 'Ram disk' is just less than 400K because Dos 3.3 cannot support anymore.

When you activate the 'Ram disks' by typing IN#2 (FLIPPER in slot 2) only a very slight patch is applied to RWTS routine in D.O.S. so that it will also work with most of the fast commercial D.O.S. 3.3 variants and also D.O.S. 3.2. The approximate times to load and save 50 sector BASIC files are listed in the next column:

Dos type	Load(disk)	Save	Load(ram)	Save
Dos 3.3	14	17	4	5
Diversi-Dos	4.5	5	0.4	0.5
FastDos	4.5	5	0.4	0.5
ProntoDos	4.5	5	0.4	0.5
SpeedDos	4.5	5	0.4	0.5
Dos 3.2	10	10	4	4

Disk Operating Systems that move themselves into the Language card to provide more user memory cannot be booted directly because the patch will be applied in the wrong place. However, simply boot the 48K version and install the 'Ram disks' and then move Dos ! I tested 64K D.O.S. 3.3 and 64K Diversi-DOS and both appeared to work normally.

The fact that Dos 3.3 and Dos 3.2 only vary very slightly is shown as follows: Boot up a Dos 3.2 Master disk (remember how) and install the 'Ram disk' then save a few BASIC files to it. Boot up a Dos 3.3 Master disk (except by powering off and on) and install the 'Ram disks'. You will find that not only are the files preserved but you can load them !!

You can make the 'Ram disks' bootable by Brunning the file FLIP on the Program Manager disk and then moving the appropriate files onto the 'Ram disK'.

PASCAL

Pascal 1.3 is fully supported and will produce a 'Ram disk' the first time you access it. You can presumably produce a bootable 'Ram disk' by formatting it then transferring over the appropriate files.

Pascal 1.1 and Pascal 1.2 require you to copy over three files from the Program Manager disk onto the Pascal boot disk. The files for Pascal 1.1 differ from those for Pascal 1.2 ; the manual clearly explains the procedure. Pascal 1.1 when booted will automatically format a 'Ram disk' volume #10 whilst Pascal 1.2 will format volume #20.

You can't unfortunately make a 'Ram disk' bootable under Pascal 1.1 and Pascal 1.2 because they must be booted from slot 6. Did Apple really market slot dependant software?! Don't write in because there are ways of doing it but one is rather bizzare and the others are most time consuming.

CPM

CIRTECH claim that there CPM Plus system automatically produces a 1016 K 'Ram disk' on booting. However , CPM 2.20B and CPM 2.23 require you to copy a file from the Program Manager disk to your CPM boot disk. After this file FLIP.COM is executed or autorun on bootup the 'Ram disk' will be installed.

The 'Ram disk' is accessed as Drive D: on CPM 2.20B (56K) or Drive F: on CPM 2.23 (60K).

TECHNICAL INFORMATION

Cirtech provide some information in the FLIPPER manual to aid assembly language programmers to move memory in and out of the 1 megabyte card. They however, suggest that programmers don't use the I/O switches since it is possible that the method of memory access may change in the future. Examples are shown to enable programmers to move up to 64K blocks of memory to and from the FLIPPER card.

FLIPPER does not use the usual bank-switching method but instead provides a simple serial access through a single byte port. This produces a somewhat faster method of actually moving memory which is of course necessary for a 'Ram disk' to work.

The fact that FLIPPER requires no apparant patching to make it recognisable as a 'Ram disk' in so many different operating environments is in part due to its program in ROM. The other is the clever way in which it makes sophisticated operating systems such as Prodos think that it is a Disk interface card !

On attempting to access the 'Ram disk' for the first time the program in the ROM processes the necessary patches to actually install the 'Ram disk'.

On reading the advertising for the FLIPPER I felt that one could actually flip between running programs, although this is definitely not stated. After much testing I have come to the conclusion that this is not at present possible.

The FLIPPER is an excellent large memory card which is designed basically as a very fast 'Ram disk' it is easily installed inside the Apple and very little work is necessary to get the 'Ram disk' up and running. The Program Manager allows you to divide the FLIPPER into 1-4 smaller 'Ram disks' but intially this takes some time to setup. However, the work-areas so produced can be saved to diskettes for a quick setup next time they are used.

Flipping to another 'workspace' is like booting another application from scratch. This is not so useful as interrupting a running program to use another and then return to the first to carry on as if no interruption had occurred. However, on 'booting' one of the work-areas one is rewarded with the application up and running in a few seconds.

It would be hoped that in the future the FLIPPER could be used by programs such as Appleworks both as a 'Ram disk' and as increased desktop space. This would greatly increase its appeal for all users.

The Manual is succinct, clear and generally very helpful. However, I would have liked to see some step-by-step examples of how to setup the FLIPPER with a few applications such as Appleworks , Wordstar and a D.O.S 3.3 application. After all Cirtech , the manufacturers claim that the FLIPPER speeds up loading and use of multi-program packages which may be flipped through at will.

Equipment: FLIPPER 1 Megabyte Ram board
Manufacturer: Cirtech
Currie Road Industrial Estate
Galashiels
Selkirkshire TD1 2BP
Scotland
Price: £350

END

COURSE NEWS

BASUG COURSES R.I.P.

For most of the short history of BASUG, we have run occasional courses on various topics, and had a mixed response from YOU the members.

Last year, amongst all the other problems faced by the committee, we were faced with a poor response to those courses we had offered you. We arranged for a professional lecturer to arrange our courses for us. He agreed to do them, provided that he would have a minimum attendance, and that BASUG handled the advertising.

The costs we felt were reasonable, as for £25 a fully professional course with printed notes was to be provided. We fixed the events, we fixed the place, we told you all about them, and then we waited for your response.

Four replies later, we have reluctantly had to say to the organiser, we don't think YOU want them. It needs a minimum attendance to simply cover all the costs involved.

Where did we go wrong? Did we have them on the wrong dates? Did we have the wrong subjects? Did we charge too little, remember that normally a course of this quality would probably cost you over £100.

PLEASE let us know what you want. In the meantime, we have laid them to rest, but we have not forgotten, we await YOUR response.

END

Membership and Subscription Changes

Changes ahead - the reasons why !

At the Annual General Meeting, in July 1985, your Committee were requested to look at the whole question of subscriptions, including the levels of subscription rates, the possibilty of having a common renewal date for all members, and when that renewal date should be.

In order to answer these questions, we set up a Finance Sub-committee, which included myself, our Administrator, our Membership Secretary, and two other Committee Members.

We feel that the levels of subscription are correct, and do not anticipate that it will be necessary to increase the rates in the near future. Although the financial results of BASUG have not been promising in the past, the Committee has implemented a number of changes which are expected to improve the situation, and this is reflected in the accounts for the year ended 30th June 1985.

The next consideration was the introduction of a common renewal date. We felt that this would produce a saving in the Administrative workload, particularly in the despatching of Hardcore. Admittedly, it will mean a substantial workload at renewal time, but the overall effect will be advantageous.

The next question, then, was "When should our members renew?". Again, the answer was fairly obvious. As you can see from the chart, the majority of members already renew in January, so this was the obvious choice from the Membership Secretary's point-of-view. The choice of January also makes sense from my point-of-view, as this means that I know the current membership numbers at the financial year-end.

Our final duty was to recommend the partial subscriptions to be paid by members renewing during 1986, and these are shown in the formal notice in this edition. We have related these partial subscription rates to the number of Hardcore magazines each member will receive, e.g. members renewing in either March or April will receive five magazines during the remainder of 1986, and should therefore pay the same subscription rate.

We will all be on an even footing by the end of 1986, and future renewals will fall due on the 1st January each year.

The general feeling at last year's A.G.M. encourages us to believe that these decisions will be met with approval by our membership, and we look forward to the continuing improvement in Basug's prospects.

END

BRITISH APPLE SYSTEMS USER GROUP

ANNUAL SUBSCRIPTION - NEW ARRANGEMENTS

The Committee has decided to have a common renewal date for subscriptions.This will enable us to keep administration costs as low as possible.

In future all subscriptions will be payable on JANUARY 1st and membership will last till DECEMBER 31st.

You will not need to do anything until your next renewal is due. This may be now if your renewal date is in March or April. Take a look at your renewal form and all should be clear.

To bring everyone into line we have agreed on the following subscription rates for renewals in 1985.(see table at bottom of column).

Some examples may clarify the table:-

Your name is Joe Bloggs and you live in Maine, USA. In the February Hardcore you get a renewal reminder that your subscription is due in April. You pay £20.80

Your name is Josie Bloggs and you live in London. In the April Hardcore you get a renewal reminder that your subscription is due in May. You pay £10.00

U.K.Individual : Mar/Apr £12.50 May/Jun £10.00 Jul/Aug £7.50 Sep/Oct £5.00 Nov/Dec £2.50
Company & Overseas Individual : Mar/Apr £20.80 May/Jun 16.60 Jul/Aug £12.50 Sep/Oct £8.30 Nov/Dec £4.20
Overseas Company : Mar/Apr £29.20 May/Jun £23.30 Jul/Aug £17.50 Sep/Oct £11.70 Nov/Dec £5.80

Subscription Rates for 1986

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DISC ZAPS AND ALL THAT (Part 1)
a beginners guide to 'Disk Manager'
by Ewen Wannop

One of the latest additions to the ever growing software library is 'Disc Manager'. This is a general 'disc zap' and disc utility program, and is available on Software Library disc No. XX at the usual price of £5 inclusive.

The disc allows a comprehensive set of disc utilities. Twelve assorted options are available from the boot menu. I shall describe each of these in turn, and also explain some of the uses that they may be put to.

First, let me say this disc is a DOS 3.3 utility, and although it will look at PRODOS, PASCAL or CPM discs, it is primarily intended for use with DOS 3.3.

Arguments still rage over DOS versus PRODOS. APPLE themselves officially support only PRODOS now, but the vast host of DOS programs out there still need to be supporting, and in fact virtually all the discs in our software library have been written under DOS 3.3. Properly handled, DOS is just as fast as PRODOS, and it has the advantage of using less memory under some circumstances. However PRODOS does have its own advantages ... but that can be left for another discussion some other time.

Upon booting the disc you should be presented with the 'Disc Manager' title page and the following menu:

```
**DISK MANAGER**                R0000

SLOT 6  DRIVE 1  TRACK   SECTOR
-------------------------------------

MENU:

1 : CATALOG WITH T/S POINTER
2 : FILE T/S LIST
3 : FIND T/S SECTORS
4 : UNDELETE FILE
5 : DISC PATCH
6 : DISC MAP
7 : CATALOG SECTOR
8 : INIT A TRACK
9 : COPY A TRACK
10 : CHANGE SLOT/DRIVE
11 : DISC CLEAN
12 : BAD SECTOR SCAN
13 : EXIT

WHICH ?
```

The top line of the display shows the current status of the program. The four digit display at the top right shows the current track sector being read or written to, and the letter preceding this number shows whether we are reading (R) or writing (W) to that sector. The line below this is used for setting up the working Slot, Drive and Track, Sector combination as required.

Perhaps, before I go any further, I should explain how a disc is constructed. There are, on an APPLE disc, 35 separate concentric tracks. Each of these tracks has 16 individual sectors each with 256 bytes of data within it. On a DOS disc, tracks 0,1 and 2, are reserved for the use of the DOS itself, but there are useful things there for us that we can look at and change.

Track $11, that is hexadecimal $11 or decimal 17, is the Catalog track, and is the key to getting at any of the files on the disc. It is usual when talking about discs to use the hexadecimal notation, and in fact 'Disc Manager' expects hexadecimal entry for its working parameters.

Hexadecimal is easy to use. In decimal counting when you get to 9 you start again at 0 and carry one, in hexadecimal you keep on counting with A,B,C etc. until you reach F, when you then go to 0 and carry one. In this way we count in lots of 16 instead of the usual 10.

Nearly everything in a computer is based on numbers that are multiples of 2, and are usually then given in hexadecimal notation for convenience. A disc sector contains 256 bytes of data, a track has 16 sectors etc.

We can now get down to the Menu options, first we have ...

1 : CATALOG WITH T/S POINTER

This produces what at first looks like a normal Catalog, but without the usual display showing the number of sectors taken up by the file. However, at the right is given a pair of numbers, first the TR or track number, and second the SC or sector number of that files Track/Sector list. More about these under the next option, but make a note of the pair for any file in which you may be interested .

To the left of the file name, will be given a '*' if the file is locked. If the '*' is displayed in inverse, then it means the file has been deleted and will not appear on a normal Catalog. It may be possible to revive this file, but again more of that later. If the Catalog is a long one, then pressing the space bar will cycle through the entries, finally returning you to the Menu.

2 : FILE T/S LIST

On entering this option, we must first put in the TR/SC number pair that we
gleaned from the Catalog. These will display on the top display line as they are entered. Press return to

go on to the next value. If you have entered a valid pair, you will be rewarded with a display of the TRACK SECTORS taken up by that file. DOS keeps a list for each file, of all the sectors used.

The list takes at least one sector itself, so the minimum file length is therefore two sectors, one for the list, and the minimum obviously of one for the file itself. The left hand digit is the track being referred to, and the digits ranging to the right are the sectors within that track used by that file. They are placed in sequence, so the first one shown is the first sector of the file and so on. Entering a return only, when asked for a track sector pair, will exit back to the menu.

3 : FIND T/S SECTORS

This is where the fun can start .... We all occasionally get a corrupt disc, often because we have opened the drive door or hit reset while the disc was being written to. All of these could cause corruption of the Catalog track, with the files all apparently lost. Help is at hand however, as if that track is damaged, we can repair or reconstruct it.

The DOS 3.3 manual has a great deal of information buried within its pages, and with care, it is possible to reconstruct a complete Catalog track. First we must find the track sector lists of all the files by using the FIND option, then we look them up with option 2 to see if they really were proper track sector lists. We then repair the Catalog using these sectors as the T/S list for a known or dummy file. If there are rather a lot of these displayed, you will need to press the space bar to see the rest.

4 : UNDELETE A FILE

As I mentioned before, it may be possible to revive a deleted file. If any are present, this option will present them one by one, and ask you for a Y/N response as to whether you would like to see them again or not. However, it is important to know that this will only revive the Catalog entry, it does not update the disc map, or ensure the validity of a deleted file.

Having un-deleted a file, you must then load it in to memory, check it is OK, then delete the file from disc and finally resave back to disc. This will ensure all the correct disc maps etc. are kept up to date. I have been saved many a time by this useful feature ....

5 : DISC PATCH

This is potentially a very powerful utility, and deserves a whole article to itself, I will only explain here how to use it. The many possible uses that it can be put to will have to wait till some other time. A timely WARNING here, it is possible to damage irretrievably the information on a disc with this feature, and so it is recommended that you first copy the disc in question, and work on the copy only, till you know what you are doing and are sure your changes have worked.

On first selection, you will be shown a further menu of options. At any time while using this Patch facility, you may return to this menu by using the '?' key. To Escape back to the main Menu press <Escape> from wherever you are.

C : CHANGE TR/SC BUT DO NOT READ

This will change the working track sector pair in the display but will not do a read or write. Use this to specify a new destination for a sector you have been working on before writing it back to disc. You must enter in the top line display, using return as before, to go to the next entry.

N : SPECIFY NEW TR/SC AND READ

The track sector specified will be read into the internal buffer and the top 128 bytes of the buffer displayed. The display takes the form of 16 rows each of 8 bytes wide. An ASCII representation of the bytes is given to the right. To display the bottom 128 bytes press 'B'.

S : CHANGE SLOT/DRIVE

Changes the working slot/drive, enter in the top display line and use
return to go to the next setting.

R : RE-READ CURRENT SECTOR

This will re-read into the buffer the current working sector. Useful if you have made a mess of things and want to start again.

W : WRITE CURRENT SECTOR

Writes back to disc the altered buffer. This could be dangerous, make sure you have not done anything disastrous before you issue this command. You should be working with a copy of the relevant disc so you can re-read the sector if you make a mistake.

P : PATCH SECTOR

The main use of the Patch facility is to allow you to change bytes on the disc at will. You should know precisely what you are doing before you start with this. Always work with a copy of the disc in question, if a mistake is made you can then return to the stating point.

This option allows you to change one or more bytes at will, allowing you to change the type of file for instance, or to change illegal characters to legal ones in file names in the Catalog, and many other useful changes as well.

To use PATCH, you must first enter the start offset address of the byte that you wish to work from. This is the offset within the current buffer displayed on the screen. Press return to go to the actual patching, and on entering each

byte, press return to go to the next. When you have entered all you wish to change, press return by itself to enter the changed bytes into the buffer.

You must then 'W' write this back to disc to make the change a permanent addition to the sector you have been working on.

T : DISPLAY FIRST $80 BYTES

You can only display $80 (128) bytes of the sector at any one time. As a sector is $100 (256) bytes long, you must toggle the display between the first $80 bytes 'T' or the bottom $80 bytes 'B' of the current working sector.

B : DISPLAY LAST $80 BYTES

Displays the bottom or last $80 bytes of the current working sector.

+ : READ NEXT TR/SC

This will take you to the next sector in ascending numeric order. If you reach sector $F it will go on to the next track and display sector 0 of this track. If you reach sector $F of track $22 then you will cycle round to track $0 sector $0. The display at the top right shows the current sector you have read.

- : READ LAST TR/SC

Descends one sector from the current position. Wraps round to $22/$F from track $0 sector $0.

ESC : LEAVE DISC PATCH

Returns to the Main Menu when you are done.

? : DISPLAY MENU

When you get lost, this option will display a Menu of possible commands.

6 : DISC MAP

As well as the Catalog and the track/sector lists, DOS keeps a map of all the used and free sectors on the disc. This can show in a graphic form all the sectors that are currently in use. The display shows the tracks ranging from 0 to the left, through to $22 (35) at the right. The sectors are shown vertically from 0 to $F (15).

If you draw a disc map of a disc that has only been initialised and thus has no files on it, you will see that tracks 0-2 and track $11 are shown as in use. These are the DOS tracks and the Catalog track, as mentioned earlier. You will be shown also at the foot of the screen the number of free sectors left on the disc as well as the number off sectors actually used.

7 : CATALOG SORTER

If like me, you end up with lots of odd files all over your discs, all in a haphazard order, then this is for you. On selecting this option, you will be given a second menu, with 5 further options.

There are two forms of the sort, alphabetical or manual, and each may be specified with the program called 'HELLO', (if present) as the first file. If you select manual sort, then each file will be presented to you in turn, simply answer 'Y' or 'N' as required until you have been through them all. They will keep cycling until all have been done. Leave any deleted files to the end. All must eventually have been placed in order before it will write back to disc and take you back to the Menu.

8 : INIT A TRACK

Damaged tracks may be repaired by re-initialising them. This simply means writing them out from scratch to an all-zero condition. It is a pretty drastic remedy, and so you should try and save as much of the track by copying the good sectors to another disc.

It is important for DOS that the volume number of the track is consistent with the rest of the disc, so on entry it goes and tries to find it first. It will then ask for the track you wish to renew. You are asked to verify your selection, just in case you have made a mistake .

9 : COPY A TRACK

The main use of this option will probably be to copy your favourite DOS from a master disc to your slave discs. A warning is given if you are writing to these tracks .

You can copy a track from one drive to another, but the drives must both be in the same slot. If you feel like it, you can copy from one track to another completely different one, though I can't quite think at the moment where this could be of much use.

10 : CHANGE SLOT/DRIVE

This will change the working Slot and Drive. Enter the appropriate one, and press carriage return to get to the next setting. You cannot enter illegal slots or drives. The program may eventually hang if you enter a slot number that has no drive in it!

11 : DISC CLEAN

You will need a suitable cleaning disc for this option. The head will 'scrub' back and forth from track 0 to $22 for about one minute.

12 : BAD SECTOR SCAN

This scans the disc from one end to the other for any 'Read' errors. It is assumed that if the disc reads correctly, then it can be written to correctly as well. If any errors are found on a normal disc, you will have to Initialise that track again. But first copy any sectors that are good to another disc, so that you can copy them back and repair afterwards as much of the track as can be saved.

13 : EXIT

The way out from the program. If you have tried so far to get out by pressing Reset, you will simply have found yourself back at the Menu. This will finally let you go off and play that adventure game again. You didn't try to find the answer on the disc with the PATCH option did you?

This is the first in a series of articles by Ewen

END

Just beta-testing the latest aqua-game, I hope the Apple is water proof !

Tips & Techniques for your Apple //e

AppleWorks: Problems with output wider than 80 columns

Customers are having difficulty printing Appleworks files when lines in the file are greater than 80 columns long. This happens because the interface card adds a CR-LF after 80 columns.

To eliminate this problem:

1>. Select the change printer specifications section of Appleworks.

2>. Select the desired printer and choose "6. Printer Codes".

3>. Choose Characters per Inch.

4>. Select the spacing you want to set.

a. If the command to set your printer to 15 CPI is <ESC>Q, type <CTRL>I120N<ESC>Q. (Keep in mind that <CTRL>I means to hold the Control key down and press the I key, and <ESC> means press the key marked ESC).

b. The same setup will work for 17 CPI if 120 is replaced with 136 (<CTRL>I136N<ESC>Q).

END

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A LOOK AT FIVE APPLEWORKS BOOKS
by Nick Hunter

Within a month after acquiring my Apple //c, I became convinced that AppleWorks had sufficient substance and sophistication to take on most of the load by which the //c should earn its keep. Although we don't see much publicity about it, AppleWorks must surely be one of the most widely-used integrated packages worldwide.

To get the best out of APPLEWORKS I bought five books to supplement the excellent APPLEWORKS Manual provided by Apple. Each successive book was purchased as I realised it covered ground not in previous ones.
The five works were:-

"Using AppleWorks" by Aron & Aron, 400 pp
Publ. by Que Corp.(£15.95)

"Mastering AppleWorks" by Elna Tymes, 201 pp
Publ. by Sybex.(£14.50)

"AppleWorks Made Easy" by Carole Boggs Matthews, 302 pp. Publ. by Osborne-McGrAppleWorks Hill.(£21.95)

"AppleWorks: Boosting your Business with Integrated Software" by Charles Rubin, 296 pp
Publ. by Microsoft.(£17.95)

"Practical AppleWorks Uses" by David Simerly, 313 pp
Publ. by Sybex.(£17.95)

APPLEWORKS is a sophisticated and complex piece of software, so any manual for it must perform the basic task of simplifying this complexity. The explanations must be simple to consult and easy to understand. This places a burden on authors and their graphic designers - but is an accepted part of the craft of communicating today.

Because Apple's excellent manual came first, the five authors have all had to come up with something new.

Rubin has explored the possibilities of integrating and communicating between the three different sections of APPLEWORKS.

Tymes has expanded on spreadsheet applications, and includes twenty business templates - which I shall enjoy trying out.

Simerly takes us through standard applications for the package. His word processor section has standard forms for memos and letters and shows how to boilerplate selected paragraphs for documents such as personalised contracts. I recommend this work.

I liked Aron & Aron immediately I opened it because the sub-headings were superbly clear and all instructions were indented and numbered clearly. Apart from a simplistic introduction, most superfluous text had been purged,so the style is crisp and the coverage is comprehensive.

Matthews seems to have tried to produce a substitute for the Apple manual - but only with limited success.The work is not so easy to understand, and the introduction to spreadsheets is rambling and painful. She plods through numerous pages of dense text outlining all sorts of options, but the text sub-headings were so similar in size to the main chapter headings that I quickly got lost in succeeding sections and never found the keystroke sequence which would allow me to open up even a simple spreadsheet.

Here's how the five works each treat the main subject sections:

PAGECOUNTS COMPARED

	Aron	Tymes	Matthews	Rubin	Simerly
Total Pages	400	201	302	296	313
Max Words/page	570	480	530	480	430
Database	93	21	69	41	57
Word Processor	73	12	61	33	55
Spreadsheet	83	26	81	42	43
Printer Optns	18	13	12	20	26
Integrating	0	36	28	10	26

One cannot help judging these manuals against Apple's Manual, which is comprehensive and very well laid out. Each new chapter begins with a blue-flagged page which helps when flicking through the text - but it is still not helpful enough. The main sections on Word Processing , Database and Spread Sheets were not easy to distinguish apart from usual chapters, because there was no separate colour or card spacer to assist rapid access. I wound up flagging each of the main sections with masking tape tabs to assist finding my way quickly.

On pp.251-252, Apple tells you how to Cut and Paste on less than a page. But still I found the explanations too complex and I had to write my own summary of the essential keystrokes sequence. Manuals should not mix up keystrokes with descriptions of the procedures being carried out, because mixtures introduce unnecessary complexities - although the determined reader will get through the procedure eventually.

Simple people (like myself) need to follow down a column of uncluttered keystrokes in order to execute an important standard procedure such as Cut or Paste. Although my criticism concerning minor details of design and layout may seem overly severe, I consider such details of form to be of crucial importance for effective communication.

There is a difference between a manual that tells what the machine can do and one which tells what you can do. The first will list the functions of individual keys or combinations,

but I prefer those which tell you what sequences of keystrokes are necessary to produce custom letters or labels or layouts. In whatever form they occur, these are essentially templates, but so far I have seen few templates set up intentionally for the Word Processing or Database. Simerly's book comes closest to this ideal.

Few of the authors emulated the modern graphic design and layout techniques used by Apple in their manual. These include:-

- Use of colour blocks for pagination and indexing (half-tone greys could be used in single colour works).
- Horizontal interrupt lines to separate main sections and sub-sections.
- Half-tone grey blocks to highlight general warnings and other advice (These could also be used for screen displays).
- Superb use of typography for maximum effect - bold, extra bold and different type styles

All too often it seemed that the authors expect their readers to slave through a lengthy study session before attempting even the simpliest of commands. This is not good enough as few of us work in this way.

As I worked through these five books I have come to a few conclusions about what should, and should not be included in the ideal manual. On the form side, it should be laid out with the following elements:

- Begin each new item on a separate page with procedure name heading in bold clear type.
- Separately list key strokes required to achieve procedure - preferably enclosed within key symbols.
- Use right hand side of each page to show screen messages which confirm commands have been successfully entered.

Hewlett-Packard's HP-41 Manuals are exemplary. They successfully attain their supremely clear objectives because:

- You know exactly what you are going to do.
- The way to do it is shown simply and clearly.
- The desired output is shown at all stages.
- This allows verification of correct keystrokes.

What could writers do to improve their products?

- Use more screen-tone areas within text.
- Separate instructions from explanations.
- Use more headings and sub-heads in different type sizes.
- Start each instruction or keystroke sequence on a new page.
- If the instruction does not fill the whole page, leave the rest blank.
- Break the text up into small clearly-labelled blocks with a distinct.start and end so that the reader is left with no doubt as to the content and intention of each block.
- Utilise separate areas of a page for instruction, screen display and keystrokes

All of the books I looked at could benefit from the inclusion of flowcharts showing domains within the main sections, and options which exist within such domains. Apple's manual has some of these, but they do not go near far enough. One simple flowchart can show much more than scores of menus, and it can explain at a glance a complex series of options, commands and sequences needed to achieve an objective.

In conclusion, I would recommend all AppleWorks users to look at both Simerly and Aron & Aron for individual needs. But don't forget Rubin's masterful guide to data transfer either.

Whichever you choose, your command of APPLEWORKS is bound to improve!

Nick Hunter operates Hunter Mining Consultants Limited which is specialised in alluvial gold mines.

END

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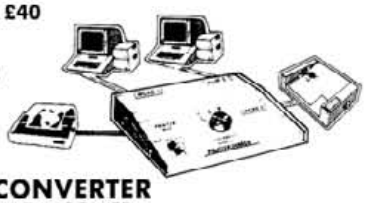

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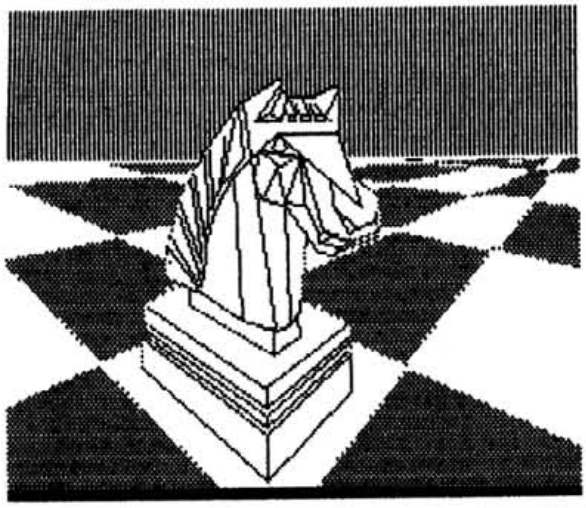
COLOSSUS CHESS 4.0
A review by Dave Ward.

Author	:-	Martin P Bryant
Publisher	:-	CDS Software Doncaster
Media	:-	Disk (copy protected)
Price	:-	£29.95



COLOSSUS 4.0 is the latest chess playing program for the APPLE // family of computers. The Publisher proudly acclaims the program to be the best chessplaying software available for any home micro computer. The program has an optional 3D board and the Publisher claims that it has more features than any other chess playing program. In this review I will describe the program and check out some of the publishers claims.
The COLOSSUS CHESS 4.0 package supplied arrived in a plastic 'book' which when opened revealed a manual and a single diskette. Just boot the disk and COLOSSUS is ready to play chess !

Moves may be entered by moving the 'cursor' to the desired FROM square and pressing 'return' if you make a mistake simply press 'escape' and start over. Next move the 'cursor' to the TO square and press 'return' COLOSSUS will then make your move. The 'cursor' is an inverse horizontal line through the centre of the square and may be moved in two ways :-

1) Simply enter the square's algebraic description F8 or A4 etc.

2) Use the four 'arrow keys'. Of course if you own a][PLUS this has no 'up/down arrow keys' so COLLOSUS allows you to use the ';' for 'up' and '/' for 'down' on all machines.

COLOSSUS lets you move the 'cursor' all over the board but when you press 'return' it will print the algebraic description after 'Your move? '. When you have entered both the FROM and TO squares COLOSSUS makes the move on the board providing its legal. If the move is not legal COLOSSUS will politely inform you so !! COLOSSUS displays the legend 'Let me think...' whilst choosing its move.

COLOSSUS informs you of its move and other messages on the right side of the screen. During the first few moves COLOSSUS will access its disk searching a text file of 'book moves' once these are exhausted COLOSSUS will not access its disk again during the game, except if you have <B>ackspaced etc.
Now for some of those features :-

COLOSSUS has a secondary screen which can be toggled with the main graphics screen by pressing the space-bar at any time other than during disk access. This secondary screen is divided into two parts by a horizontal white line. The slightly larger top part shows the last 6 moves headed by the colour,name & clock (HH:MM:SS). The lower section shows technical information ie depth searched,current line being searched and best line found so far. After its move the Opponent's predicted move is shown.
All other features are invoked by typing control characters when 'Your move?' is displayed :control-A = <A> etc.

<G>o requests COLOSSUS to play.

<T>ype of playing mode (1-6)
1 = Tournament mode - allowing you to setup time controls.
2 = Average mode - allows you to enter the time per move 0 secs. to 59:59 which effectively provides hundreds of levels of play. This is the default setup (when the disk is booted) at 10 secs. per move.
3 = All moves to be made in specified time.
4 = Equality mode - the program tries to match your time.
5 =Infinite mode - program searches all moves to 12 ply depth
6 = Problem solving mode - can be used to solve mate in 1-7 moves , 'Helpmates' & 'Selfmates'.

<A>lter position allows you to enter or change positions. In this mode you can only move the 'cursor' with the 'arrow keys'.

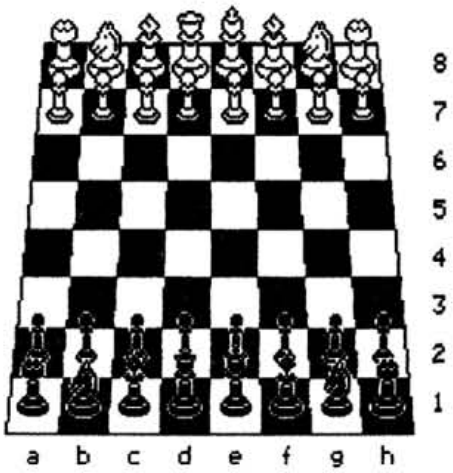
W = Wipe board !	S = Switch colour.
C = Clear square	G = Get initial position
E = Exit	PNBRQK to enter piece type.

<D>isk command allows you to - Catalog, Save, Load and Delete files from a disk. Specially formatted disks need to be prepared by first booting the reverse side of the COLOSSUS disk. You would be advised to prepare one ready!!

<Q>uantify parameters :

Opening Book (on/off)
Prediction (on/off)
Line depth display (1-15 ply)
Dimensions of board (2/3) 64K only.
Draw score parms 64K only.

You can set up the board for a <N>ew game oops! you've accidentally lost your position - well press <R>eplay immediately and the program will replay the whole game automatically with a pause of 0-20 seconds between moves which you specify when issuing the command - and it is restored.



Did you make a bad move? Well press Escape to stop COLOSSUS thinking then <B>ackspace and hopefully make a better move. You can freely <B>ackspace or <F>orward space within the moves made so far.

<W>rite to printer lets you print the board in text or log the moves as they are played.

<S>upervisor lets two players play a game ensuring that all the rules are obeyed.

<P>lay-self makes COLOSSUS play itself until stopped.

<O>rientation reverses the board.

<Z>ap toggles the sound on/off.

<V>isible allows play with black,white, both or none visible.

<L>egal shows all the legal moves for the piece on the square where the cursor resides.

<C>hoose another move - if you don't like the programs move <C>hoose will take it back & pick the next best!

<E>lapsed time lets you set the clocks.

Since the APPLE has no real-time clock COLOSSUS estimates this for you. These times can be very inaccurate for a few moves but tend to be within a few minutes over a full game.

VERDICT

How good is COLOSSUS ?

The publishers claim that COLOSSUS whitewashes Sargon II & Chess 7 ; it also beats Sargon III by 12:4 (win=1 ; draw=.5 ; loss=0). I checked COLOSSUS 4.0 versus Sargon III over 20 games at various but approximately equal levels. COLOSSUS scored 12 wins 4 draws and 4 losses. From these small number of results COLOSSUS 4.0 certainly appears better than Sargon III.
COLOSSUS is claimed to be one of the fastest problem solving computer programs in the world . Well I set up about 50 different two-movers (white to play and mate in two moves) and COLOSSUS averaged just less than 4 seconds to find the Keymove. Sargon III rarely took less than 1 minute. About 40 Three-movers were also set up and COLOSSUS took an average of 1 minute to find each Keymove.

Small quibbles:
1) During <A>lter position it is easy to press 'W' Wipeboard accidentally thus losing all the changes you have just made. Perhaps the author might consider changing the command to control-W (<W>ipeboard).
2) COLOSSUS uses a slightly modified Dos 3.3 & on 64k machines takes about 55 seconds to boot - surely this time could be reduced.
3) To save your games or problems requires you to prepare a special disk. With little changes COLOSSUS could have been designed to read/write to normal disks and the protected master.

COLOSSUS CHESS 4.0 is an excellent chess playing program and chess problem solver - the BEST I have seen for the APPLE family. The 3D board has been well done but appears a little cluttered due to limitations of the resolution.
The main screen be it 2D or 3D is excellent even though the board has to be a little smaller to accommodate the extra information. The 'cursor' is a nice touch which facilitates move entry ; I found move entry very quick & simple. A casual player need never know that all those features are available.

At £29.95 COLOSSUS has a very good price/performance ratio.

END

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LOCAL CLUB CONTACTS

Herts and Beds Group

Contact:- Norah Arnold, [illegible]
Meets at 8 p.m. on the first Tuesday of each month.
Venue:- The Old School, 1 Branch Rd, Park Street Village, St Albans, Herts.

Croydon Apple Users Group

Contact :-Graham Attwood, [illegible]
New Venue being sought.
Normally meets 3rd Monday of month.

London Macintosh Group

Contact:- Maureen de Saxe, [illegible]
Meets at 6 p.m. on the second Tuesday of each month.
Venue:- Room 685, London University Institute of Education, Bedford Way, London, WC1.

Furness Group

Contacts:- Alan Curtiss, [illegible]
Tom Iddon, [illegible]

Essex Group

Contact:- Pat Bermingham, [illegible]
Meets on the third Friday of each month.
Venue:- The Y.M.C.A., Victoria Road, Chelmsford.

Hants and Berks Group

Contact:-Mike Hollyfield, [illegible]
Meets at 7 p.m. on the second Monday of each month.
Venue:- Bracknell ITEC, Fitzwilliam House (3rd floor), Skimped Hill Lane, Bracknell.

Birmingham Group (MidApple)

Contact:-William Watson, [illegible]
Meets at 7 p.m. on the second Friday of each month.
Venue:- I.T.E.C. Tildasley St, West Bromwich.

Harrogate Group

Contact :-Peter Sutton, 0423-887923

Kent Group

Contact :-Dougal Hendry, [illegible]

Glasgow Group

Contact:-Donald Davidson, [illegible]

London Apple II Group

Contact :-Abe Savant, 01-520 5793

Bristol Group (B.A.U.D.)

Contact :-Mike Farmer, [illegible]
Meets on the first Friday of each month at 7.30 p.m.
Venue:- Bristol Maternity Hospital.

If these details are incorrect please notify Norah Arnold at the P.O.Box.

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Apple Users Group Conference 1985.

The following is a brief resumè of a meeting between 14 American User Groups and Apple Management at Apple (Inc) Cupertino.

The talks took place at all levels and included the participation of John Sculley, President and Chief Executive Officer and Jean Louis Gassee, Vice President for Product Development (ex Apple (Europe)).

The report received via Washington Apple PI indicates a complete turn around in Apples previous luke warm attitude to USERS. Apple now acknowledge that User Groups can actually serve some purpose. They have studied the prospective purchaser and found that 90% of Apple owners would buy another Apple and that the number one factor influencing prospective buyers towards a make was by word-of-mouth. Therefore User Groups could figure in the marketing of new products.

Apple stated that they were encouraging third party software development on both the][& Mac range and gave some tips for those wishing to participate.

1. Mac Developers should 'target' for the 512k Mac.
2. Developers should support the "Apple" interface formally called the "Mac" interface. (Could this mean the "Mac" environment being brought to the][!!)
3. The need is for high - end word processors and 'vertical market' software on the Mac and for educational and mouse based software on the][.

Other little titbits included the confirmation that no plans to release MacBASIC are likely - the reason appears to have something to do with Microsoft and also that the development has gone "over-budget".

All those groups present had a nice large package of almost every Apple software product for the Mac and lots of other goodies to take away GRÁTIS.

Hardware news is that Apple are spending as much on the development of][products as on the Mac range. Also the MOUSE may be bundled with all future Apple][‘s . Another statement was that Apple will take more notice of consumers 'wants' in determining what features the next generation of Apple Computers have.

Jean Louis Gassee stated that he was a strong supporter of USER GROUPS, he did set up 'Le Club Apple' in France. He would appear to be the User Groups best ally within Apple itself.

The outcome of this historic meeting is unclear but I gather from the report that a User Group Advisory Council may be set up.

Apple in the U.S.A. must have some problem with so many User Groups, however Apple (U.K.) & (Europe) do not have such a problem because the number of User Groups could be counted on one hand. !!!!

I hope that they will follow the lead of the parent company and hold some sort of dialogue with the User Groups - it can only benefit the whole Apple scene.

END

Apple /// News.

The Apple /// has been a poor relation in the good old U.K. but on the other side of the Atlantic they have sold very well and therefore the amount of information over there is greater. I have been trying to find out about what information is available and have gleaned the following helpful hints from our American friends.

If you wish to get hold of the only publication specific to the /// you should enquire about the /// Magazine - Frank Moore, 3201 Murchison Way, Carmichael, CA 95608. U.S.A. This costs $35.00 in the States so you should write first for information, cost etc.

A couple of /// specialist dealers exist, however you should write first before parting with any money. AIM, 3010 N.Sterling Ave, Peoria, IL 61604 apparently accept memberships at $25.00 for a catalogue and some cheap hard/software. CMC Computer Systems, 1514 East Edinger #H, Santa Ana, CA 92705. The owner Charles McConathy apparently is having a boom due to his prices and knowledge.

Washington Apple PI has a group of Apple /// members, it could be worth the money to join WAP and write to the APPLE /// SIG. The address is : Washington Apple PI, 8227 Woodmont Avenue, Suite 201, Bethesda, MD 20814. WAP are very big with over 5000 members, they produce a large (80 page) monthly magazine which normally has some /// stuff. Recently they have had about ten pages each issue on /// related subjects.

I am awaiting further up to date news on Apple /// specific groups in the States. There are some and I hope to have this information in the next issue.
We could do with some sort of SIG if the demand is there. If you feel that you are one of the forgotten few drop me a line, articles on Apple /// are welcome and would make a change from all the][& Mac stuff.

END

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It may be a strange idea to advertise an IBM capability in an Apple User magazine, but we know how many Apple users move on to IBM or are obliged to use an IBM as well, may be at work.

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Living Together, Part Two. We are not alone. By Norah Arnold.

It would seem that the tiny minority of resentful Apple // owners are not confined to the UK. In the December 1985 issue of Call-A.P.P.L.E., Don Elman, the managing editor, writes that a small number of Apple II owners have resented the presence of Macintosh articles in the magazine. Starting from January 1986, Call-A.P.P.L.E. will be phasing out its Macintosh section and offering their Macintosh members a MacSig newsletter on a subscription basis. This MacSig newsletter will be developed in size and quality as much as financially feasible.

Don Elman also makes it quite clear that the A.P.P.L.E. organisation is firmly committed to strong support for both Apple II and the Mac. Their constitution, like that of BASUG, makes their primary mission the provision of information about all major products from Apple Computer, Inc. and related software and peripherals.

Let's hope their MacSig newsletter gets off the ground better than the ill-fated MacChat. It should do so because, ironically, the A.P.P.L.E. MacSig is, according to Elman, by far the largest and most enthusiastic Special Interest Group in their whole organization.

At the time of writing, there have been to the best of my knowledge, no letters whatsoever from Apple II or Mac owners in response to my article in the December issue of Hardcore. If the majority of members had felt strongly on the subject the letters would surely have poured in?

END

Remember to support our advertisers who are in effect subsidising your journal and who are helping to increase the size and quality by their support.

Dear Sirs,

In the December edition of Hardcore Richard Knox enquires about the Kermit file transfer protocol and also about a BBC<>Apple link. Taking these in the opposite order, I described my implementation of a BBC<>Apple link in the February 1985 edition of Hardcore. This requires either an Apple standard serial card (uses 6850) or an Apple Super Serial card (uses 6551). I am willing to send copies of the relevant programs with documentation if he sends me suitable formatted floppy discs (one Apple DOS format, and one Acorn DFS format). Perhaps you would pass this letter on to him.

The Kermit file transfer program is fully described in the June and July 1984 editions of 'Byte' (the small systems journal) under the title 'Kermit, a file transfer protocol for universities'. The protocol was described in two parts:

Part 1: Design considerations and specifications, pages 255-278, June.
Part 2: States and transitions, heuristic rules, and specifications, pages 143-145, and 400-403, July.

Tha authors list various machines for which programs have been written, and the given list includes the Apple][, running under Apple DOS. Additionally they give an address to write to for more information which is:

Kermit Distribution
Columbia University Center for Computing Activities
7th Watson Laboratory, 612 West 115th Street
New York . NY 10025

I hope that this is of some use; perhaps you might like to publish the Kermit details in the next edition of Hardcore as this protocol is becoming much more popular at present.

Yours faithfully, A. L. Jackson .Cambridgeshire

ED: Thank you for this reply to Richard's letter and for the offer of the software to any that are interested. The Kermit saga will obviously continue. But see the seperate article on the new addition to the software library of a KERMIT disc for the Apple.

Dear Sir,

Before Christmas I received the copy of the SYMDIS symbolic disassembler that I had ordered from BASUG. I was surprised to find on trying to make a back-up copy that this software is in fact copy protected (although the note in the back of the manual is a little misleading in this respect). I am fundamentally opposed to copy-protected software and I am shocked that a user group such as BASUG distributes software in this form.

The arguments against copy protection have been eloquently stated by Jerry Pournelle of BYTE magazine so I shall not repeat them here.

My first reaction was to return the software, however the protection (although clever) is not impregnable and I have been able to make an un-locked copy (for my own use ONLY) with a couple of hours work.

For my future reference please could you advise me which BASUG supplied software is and which is not copy protected. As a member I would also suggest this status should be shown on advertisements for this software to avoid others being misled.

P.J. Vinson.

(Reply) ....

The argument over whether or not to protect a disc, will continue on both sides for some time. The Apple was probably the first machine to extensively have its software protected, and this trend has now spread to the MAC.

With regard to the BASUG software libraries, first may I say that there are only five discs that BASUG supply that are copy-protected. They are all in the special release section, four are from Ian Trackman and the fifth is SPEEDLOADER from Cornelius Bongers and Wilhelm Schouten. The four from Ian are SUPER EDITOR, SUPER TRACE, SYMDIS and PACKING SUITE.

It is not BASUG's decision that these are protected, we are allowed to market them only on the understanding that they are issued without modification, and we receive the discs in this form. The protection of discs has regrettably been thought necessary by some software authors. They feel that they must protect the considerable investment that they have made in the development of the program in question.

I would be interested to hear the views of other members on copy-protection. My own view, is that if a program must be protected, then a backup copy must be supplied with the package. In order to do this with the special release software, we would have to increase the cost of the relevant discs by £1. Would the members stand for this?

Ewen Wannop

Phil King,
March,
Cambridgeshire.

Dear Ed.

Firstly may I congratulate all concerned on the 'NEW' magazine, it is a great improvement over the 'OLD' magazine, even my wife read it with interest.

As a possible income for BASUG, would it be possible for members (and non-members) to subscribe to other magazines via BASUG? .....Is there no way BASUG can gain some revenue by acting as distributors for such magazines?

I would also like to order two tickets for the 'APPLE SHOW 86' .....What about children, will they be allowed in free?...

With reference to the 'BRITISH APPLEFEST' to be held on 26th January 1985, I know that computers can do almost anything, but time travel ? Could you let me know the correct date please?

Please also find two manuscripts and a diskette for inclusion in the 'HARDCORE' magazine.....

[Reply].....

I am glad you liked the NEW STYLE, that was stage one of the proposed enhancements that we are commited to make for the membership..... Watch YOUR HARDCORE for even more improvements in the near future.

The idea of importing magazines sounds good, we have in the past looked in that direction and it was not feasable , however we are always looking for income to help keep the club floating and we will explore that avenue again.

APPLE SHOW 86 - Children who require food will be subject to a £2 charge... no food... no charge.

BUGS - We all know of computer bugs - however BRAIN BUGS are more common. I must say that the 26th January 86 is (or was) a Sunday and the article was written when we were planning for the BEWDLEY SHOW . The date became unavailable and I didn't change the date in the article. Sorry for any confussion.

Thanks for the articles they will be used in future issues, I have also passed the disk to Graham Attwood for his attention.

Jim Panks.

DO YOU NEED ANY CONSUMABLES THAT WE DO NOT SUPPLY ALREADY . IF SO GIVE ADMIN A RING. WE WILL BE GLAD TO ARRANGE A SUPPLY.

P. Tombling,
RAF Brize Norton,
Oxford.

Dear Sir or Madam,

I am currently experiencing some difficulty with Sublogics excellent Flight Simulator II. Being somewhat less than an adept pilot my landings end in total disaster. What I wish to do is to save the flight parameters on an approach, in order to be able to practice landings.

Unfortunately, no matter how hard I try, following the instructions in the handbook, I have been unable to achieve this. Have any other members come across this problem and if so have they found a solution. I would be interested in any comments from other simulator pilots.

[Reply].....

Interesting problem - I therefore ask any BIGGLES out there to let us all know how this problem can be solved.

COME ON - help one of your fellow members LAND... before he runs out of fuel.

Walter Anderton,
Hampton,
Middlesex.

Dear BASUG,

The clue to Mr Eaton's "call for help" in the October Hardcore lies in his statement that "reading $C000 directly works until I press the right arrow which disables the Cirtech card...".

Well it would, wouldn't it Reading the value at $C000 ensures that he is given the correct code - CHR$(21) - in response to the right arrow. Otherwise in 80 column mode he would probably get CHR$(32) - ie a space - if he relied on the conventional GET routine.

But, CHR$(21), or CTRL U is the program code that disables the 80 column card on the Apple //e. Therefore when it is printed at line 410 (Videx Version) the display jumps to 40 columns.

Since Mr Eaton evidently needs to use the right arrow in his rather mysterious editing routine, the answer would seem to lie in amending line 370 (Videx Version) to change the value of A$ to something innocuous, say " ", before it can cause trouble by being printed.

The blinking underline cursor routine allegedly to be found on an Applesoft Sampler disk is an irrelevence in this case, but does anybody know what the blinking thing is ? Like Mr Eaton, I have never come across such a disk .....

[REPLY]....
Thanks for the answer ....
Does anyone know about the mysterious disk ?

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CP/M Plus System for the Apple //c

This System comprises a hardware module, which fits completely inside your //c, and a unique version of the CP/M Plus operating system, especially configured for the Apple //c. The module features a super-fast Z80H (8MHz) microprocessor and ultra fast screen handling, springing into action when you're using CP/M but not interfering with the normal operation of your //c. The //c CP/M Plus Operating System, which will run all standard Apple CP/M programs, features a disk-based help system, user friendly disk error reporting and TOOLKEY, a range of functions which can be used at any time, even when running a program:

- disk formatting and copying functions
- Mousekey, allowing the //c mouse to be used with any CP/M program
- invisible buffering of input and output from both serial ports and keyboard (including a 12,000 character printer buffer)
- screen dump control, allowing a 'snapshot' of the text display to be printed
- optional blinking cursor

The CIRTECH //c CP/M Plus System is also available as a package with the famous POCKET WORDSTAR/MAILMERGE word processing program – ideal for writing to everyone to tell them about the UNBELIEVABLE value of this System.

CP/M PLUS SYSTEM FOR THE APPLE //c – £195.00
CP/M PLUS SYSTEM FOR THE APPLE //c
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Z80 Cards for the Apple //e and][+

CIRTECH also produce Z80 hardware only cards for the Apple //e and][+ which are fully compatible with CP/M versions 2.2 and 2.23. Minimum system requirements are an Apple][+ (48K minimum) or Apple //e and a minimum of one disk drive. In addition, you'll also require a CP/M System Master/program disk and, for most programs (eg. Wordstar), an 80 column card. In addition, CIRTECH produce a Z80 Hardware Adaptor for the Apple //c which is fully compatible with CP/M version 2·20B (56K) and CP/M 2·23 (60K) and the Apple UniDisk 3·5 (but not with the CIRTECH CP/M PLUS Operating System).

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Z80 ADAPTOR FOR THE APPLE //c – £ 86.00

Watch out also for news of the CIRTECH Apple //e CP/M Plus System which will be available shortly.

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Plug in one of the CIRTECH **Champion** range of printer interface cards to give you access to all the text and graphics print commands you'll ever need. Using 'standard' easy to use control commands, the **Champion** directly supports most printers with Centronics type parallel interfaces, including Epson, Star, Cannon, etc. Apple DMP and Imagewriter versions of the **Champion** are available and, used in conjunction with a CIRTECH Serial Adaptor, the **Champion** can be used with a Serial printer.

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All the **Champion** range come complete with appropriate printer cable.

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CHAMPION (Imagewriter version)	– £66.00	CHAMPION CACHECARD64	– £120.00

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The CIRTECH **CACHEBOX** is a totally independent printer buffer with an enormous 64,000 character memory. Compatible with most computers and printers, the **CACHEBOX** is available in THREE versions and with MACINTOSH or //c connectors if required, just choose the one to suit your needs.

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//e STANDARD 80 COLUMN CARD	– £30.00
//e 64K 80 COLUMN CARD	– £60.00

EPROM PROGRAMMER – Speed and Versatility

Used in conjunction with the Controller/Interface card, the CIRTECH EPROM Programmer card features advanced fast programming and supports Intel compatible EPROM's from 2716 up to 27256, giving you the facility to read, program and copy EPROM's. The EPROM Programmer card sits outside your Apple for ease of use and is connected to the plug-in Controller/Interface card by means of a 2 ft. cable. AND there's more, the Controller/Interface card can also be used as a parallel printer interface card.

CONTROLLER/INTERFACE CARD	– £35.00
EPROM PROGRAMMER CARD	– £55.00

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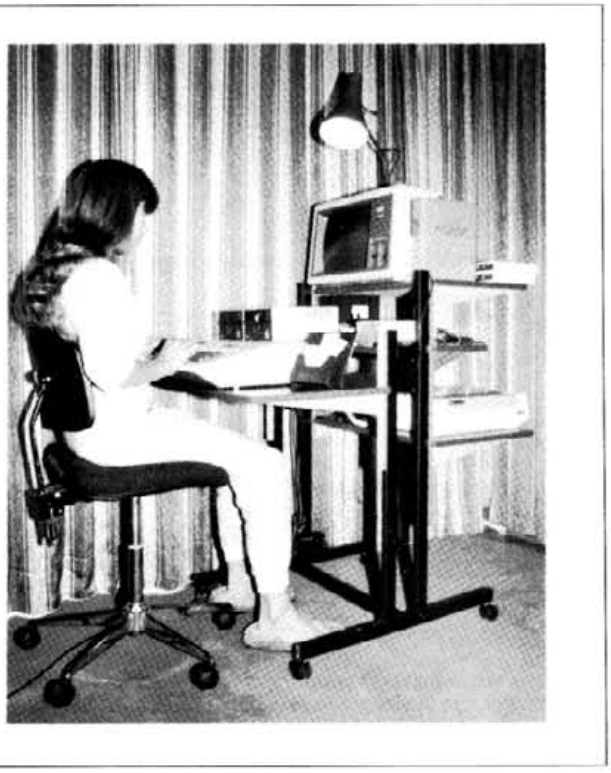
DIY - Workstation.
A project by Richard Boyd.



The finished desk in use

I have long looked at the glossy ads showing a super looking work station that would suit my family who are always swapping their Apple][from one bedroom to the other.

Having convinced the wife, tactfully, that it would be ideal for the children I discovered the price was, to my mind, exorbitant. Furthermore on closer examination I realised that it was not particularly suited to the Apple][or][e as the shelves were lacking in depth as well as being insufficently versatile in movement to take all hardware required for the Apple.

So there was only one thing to do, design my own, more suited to our requirements and with more versatility.

This project is very easy to complete and should present no problems to anybody. I found the ability to ask more competent people to complete the more skilled jobs resulted in little extra cost and means a better finish to the completed work.

MATERIALS

20 ' of 11/2 " * 3/4" (40 * 20 m.m.) 1.5 m.m. Semi-bright Steel Tubing.
3' * 4' of Blockboard or Plywood.
Four Castors with screw fittings.
One 3' TM Wall Shelving Support.
One 4' TM Wall Shelving Support.
Six 13" TM Shelving Brackets.
Twenty 9 m.m. No 10 Self Tapping Screws.
Drill for Self Tapping Screws.
Super Glue or Epoxy Resin (Araldite).
Total Cost under £40.00

STEEL

You can obtain the steel without any problem from Steel Stockholders and usually it is in stock. If you smile nicely, as I did, the men in the warehouse can cut it exactly to the required lengths in a matter of minutes with their powersaws. They took pity on me after seeing some 15' of steel protruding from the rear of the car as I attempted to take it home.

WELDING

Again by asking your local garage personnel or car body repair shop they can weld or preferably braze the steel together. My car repair workshop also spray painted it as well. So you see I learned from my previous experience.

WOOD

The choice of wood for the shelving is up to you, however if you wish to make a good job then veneered blockboard is ideal. Otherwise any prepared timber from your do-it-yourself centre will suffice. Offcuts from a woodwork workshop would also prove a cheap source of quality timber.

SHELVING SUPPORTS

I found a shelving support system, usually affixed to walls suits the requirements perfectly. It has the advantage of being easily fitted to the unit securely and has 1" adjustments to the shelf height. Additionally it is very strong yet lightweight.

CASTORS

You can obtain the castors from Kenrick Hardware Ltd., PO Box 9, West Bromwich, B70 6DB Tel 021-5532741. These castors have twin wheels and a threaded bolt to screw into the base of the unit. If you ring them they will send them to you with a bill.

CUTTING RECOMMENDATIONS

STEEL

Two lengths @ 21"
Two lengths @ 30"
Two lengths @ 36"
Two lengths @ 3"
Two lengths @ 27"

WOOD

One length @ 24" x 6"
Two lengths @ 24" x 18"
Two lengths @ 24" x 16"

SHELVING SUPPORT

Two lengths @ 24"
Two lengths @ 18"

CONSTRUCTION

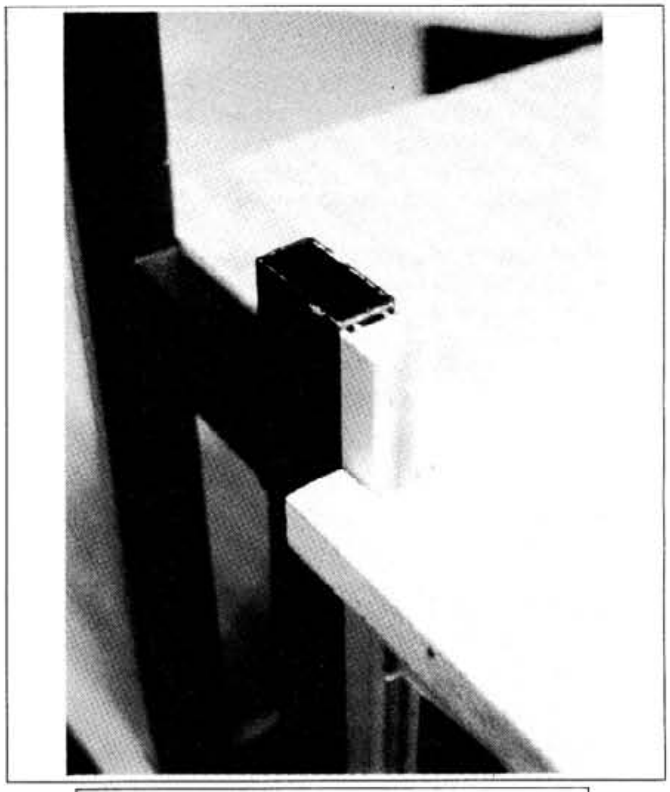
The first item to be made should be the steel framework. The main rule for the cutting of the steel is that all pieces, of which there are 2 of each, should be of identical length or you may find that you are working on a slope.

The Metalwork completed.

I have made the uprights of 36" & 30" pieces with the 3" cross piece brazed together approximately 3" from the top of the shortest piece. These are joined to the 27" base pieces at their centres. Obviously these pieces must be square to the bases or the proverbial slope will result.

Finally these two completed side sections are brazed together by the two 21" pieces. Note that whilst the bottom one is vertical in section the top one should be horizontal leaving a 3/4" valley in which to place the top shelf.

Once completed 4 holes should be drilled in the underside of the base sections to take the castors. The holes should be some 2" in from each end and tapped with a 5/16 Whitworth thread.



Rebates on shelves and Support Fixings

You are now ready to fit the shelving uprights to the outside of the uprights. This is achieved by placing the two 24" pieces on the outside of the longest upright, making sure that the shelf support inserts match up and are level to each other. The shorter 12" pieces affix to the front of the unit and the same rules apply. Note:-

IT IS EASY TO GET ONE OF THEM UPSIDE DOWN.

Attach the shelving support pieces with the self tapping screws having first marked the screw holes and drilled them with a correct drill. If you use the recommended self tapping screws. and if you are sure of your positions then you may put some Araldite or Super Glue on the threads immediately prior to screwing them home for the final time and you can be sure of a permanent attachment.

The exact positioning of the front shelf supports is not critical as they provide 1" adjustments for the shelves, but ensure that if your initial fixing is primarily for children, as mine was, that you allow for plenty of future upward movement of the shelves.

The timber can now be fitted to the unit. All that is required for this is the cutting of two notches at the point where they abut the shelf supports. This will prevent any sideways movement by the work surfaces. Additionally 2 or 4 nails with their heads sawn off can be positioned in the underside of the worksurfaces to locate with the screw holes in the brackets.

The centre section of wood should be well secured to the cross piece of steel by being screwed from below with large screws through the steel cross member.

Finally obtain some plywood cut to $1\frac{1}{2}$" x $\frac{3}{4}$" or some $1\frac{1}{2}$" x $\frac{3}{4}$" x 1" timber and rebate with a chisel so that they can be glued into the eight open ends of the steel section. Finish these of by chamfering the exposed timber. Or if you are modern then put on some plastic end pieces.

Screw the castors in place in the base and tighten firmly but be mindful that you only have a small amount of holding thread. Again I would recommend a spot of Araldite or Super Glue on the threads.

FINISHING

The degree of finish you wish to achieve is entirely up to you. Obviously the steel should be coated with a zinc chromate primer from a paint shop and then painted in your desired colour.

The woodwork can be stained and then given several coats of clear polyurathane to give a nice durable finish.

ELECTRICS

I would suggest that a 4 socket extension screwed to the underside of the 6" centre wood section or to the steel cross piece. This would be sufficient to provide adequate outlets. The electric cable should be clamped by adequate means to the frame to ensure that it cannot be accidentally cut whilst moving the workstation.

IMPORTANT

Ensure that you earth the work station via the Earth connection provided with the extension socket.

Eds note: I have seen this workstation in use and it is really nice. Thanks to Richard for this useful article.

END

Wishbringer by Infocom.
A review by Timothy Austin.

The first thing you notice when you get the WISHBRINGER package is the usual excellent standard of packaging that we have come to expect from Infocom. The game comes with a mock-up library book giving the game background, a map of the area you are about to enter into, a mysterious envelope and your very own WISHBRINGER stone which glows in the dark.

The plot of the story is that you have just taken on the job as postman in the sleepy village of Festerton and you must deliver a mysterious envelope to the proprietorof the joke shop on the hill. Mr. Crisp has given you a warning not to accept any presents or run any errands for her.

The first bit of the game is pretty simple as you make your way to the shop past the yapping poodle and up the hill but there the women asks you to read the letter for her (then you can open the mysterious letter in the WISHBRINGER package) and she gives you a gift. She then asks you to run an errand for her and whether you like it or not, you're going to do it. Now the game really starts as you get attacked by Hellhounds, tramping boots and the like. But where is this stone we have been hearing so much about?

The game contains the usual excellent humour Infocom have given us continually, for instance:-
"A rickety toll gate has been thrown up across the entrance to the covered bridge. A handpainted sign is nailed to the middle of the closed gate.
Standing near the toll gate is an ugly. gnomelike creature. A less original story would probably refer to it as a troll."

The game continues with humour like this all the way through.

The program, being introductory level, is not very hard. In fact it even tells you when it would be a good idea to save the game and make a map! It is idealy suited for beginners but will still provide a great deal of enjoyment for the hardened adventurer.

All in all the game is the nearest Infocom has got to Interactive fiction. You really feel that you are reading a book rather than playing a game. Though a little pricey it is a very good first or second adventure but will not provide enough challenge for an expert (if you are one, wait for Spellbreaker instead).

END

SPECIAL RELEASE SOFTWARE

D.A.M.P.
Set up your own personalised data-base, and print the results as needed. Records are screen orientated, and may be set up to your own requirements. A full set of utilities are included for general house-keeping etc. Throw away your DB3 ....

CLUBKEEPER
A suite of programs to allow the keeping of a club or society database. Requires a Z80 softcard. There are five main areas to the program, accounts, membership, stock, diary and staffing. You always wanted to be treasurer didn't you?

HELICOPTER RESCUE
Keep the kids quiet at Christmas. Requires paddles or joystick. Rescue as many people as you can, while avoiding the well fed seagulls. Enjoy the turkey while the kids play and see who can get the highest score.

SPEEDLOADER
Our amazing offering from Cornelius Bongers and Wilhelm Schouten. Allows the loading of any program, memory dump or DOS, at up to 10 times the normal speed. You prepare a working disc from this master program, and then stand back in amazement. See seperate review.

SUPER TRACE
High speed de-bugging of Applesoft programs. Allows screen display of program lines and the values of variables, as the program is running. Find which line that program of yours is going wrong.

SUPER EDITOR
List and change occurrences of commands, variables, functions or strings in Applesoft programs. Clean up your programs, and find that elusive variable.

APPLESOFT SCREEN EDITOR
On screen editor for Applesoft. Allowing fuller editing than is normally available. Global find and replace, renumbering of individual lines, insertion and deletion of lines and lower case input. Makes life easy.

PACKING SUITE
Unpack Applesoft lines having more than one statement to make editing easier. Then pack them back again for faster working and less memory overheads. Strip REM's to shorten the program. Will clean up and streamline your finished program.

Speedloader £16.00
Special Release Software £14.50
All prices include VAT and P&P.

GRAPHIC PAD
Allows you to produce Hi-Res graphic pages, pictures and text, quickly and easily. Requires at least a pair of paddles, but preferably a joystick should be connected. Illustrate that adventure game you have been writing.

SYMDIS
A symbolic dissassembler for 6502 machine code. This will create a standard text file from any machine code program or defined area of memory. The resultant file can be then altered and reassembled with your own standard 6502 assembler. Assembler not included. Rewrite that favourite machine code program!

PRESTEL DRIVER
Access Prestel and Micronet with your Apple. You will need to have either an Apple Super Serial Card or a SERCOM II Serial card, and of course a modem capable of 1200/75. You will also have to join Prestel. Say 'hello' to the BASUG pages when you get there!

All software comes with a complete instruction manual. The extensive manual for Speedloader is in Applewriter II text-file form on the back of the disc, but has a 'reader' program that will dump it either to screen or printer. All other discs have the current software library catalog on the reverse.

SOFTWARE LIBRARY

New Disks

D105 DISK MANAGER - by Ewen Wannop
(see article on page 11)

P009 STORMBRINGER - an adventure
(needs disk P008)

Apple /// Monitor Mode and Commands. By Andy Weeks.

The following information, to the best of my knowledge, is not contained in any of the Apple /// manuals.

You can enter the Apple /// monitor by holding the control key and the "open" apple key both whilst pressing and releasing the reset key. Be sure that you keep holding the control key and "open" apple key down, as it takes a fraction of a second after you release the reset to read them.

Many of the Apple][monitor commands work the same in the Apple ///. These are as follows :-

addr.addr	Display a range of addresses; use the space bar to halt and the return key to abort.
addr<addr.addrM	Move data.
byte<addr.addrS	Search for the byte.
addr<addr.addrV	Verify.
blk#<addr.addrR	Read disk.
blk#<addr.addrW	Write disk.
addrG	JSR to addr.
addrJ	JMP to addr.
U	JSR 2F8

These monitor commands are not necessarily supported in all software editions, so do not depend on having then or using them in any assembly language routines. Unfortunately, the exsistence of a disassembler is not known.

One may change from 40 to 80 character display by typing ESCAPE 4 for forty and ESCAPE 8 for eighty column. The positioning ESCAPE commands work in the monitor also except for windowing.

Memory location $FFEF is the memory bank switch location. When you enter the monitor, it will reaf F0. By loading it (FFEF:1) it will switch to bank one and with :2 it will switch to bank two if you have 128k. The first nibble will always read F.

END

Apple and the year ahead.

I was invited on behalf of you all to attend the press launch of the Mac Plus and details of the new machine can be found elsewhere. Prior to releasing the new Mac we were treated to an overview of 1985 and the Apple strategy for 1986. David Hancock the Managing Director of Apple (UK) was unable to attend due to an illness and therefore Keith Phillips (Director of Marketing) and Richard Bradley (Macintosh Product Manager) stood in and produced a worthwhile overview of Apple in 86.

1985 was a year for tough decisions within Apple as a whole and the three main areas were 1) Factory efficiency 2) Overheads 3) Management. Apple took the job to heart and from this the following happened 1) Apple closed two factories and made 1200 employees redundant. 2) They lowered overheads by $50 million in just one quarter. 3) A new Management Team was employed. 4) The Macintosh Division was integrated into the company and its members were re-deployed.

Apple are unique in some ways, they have a 30% growth on revenue, the profits grew by 25% and in the last quarter they had the best profitability in the companies history with each Apple share gaining 85 cents. However the company has realised that the computer industry overall is going through some hard times and they expect the next quarter to be tough, they see no dramatic growth during this period and have geared themselves towards this.

The company has a very good bank balance and from the view of the figures I had looked in good shape. Apple are still pouring money into development and this will no doubt show in the coming year.

Apple state that things have changed, one person asked if JOBS leaving had anything to do with this new found Apple. The answer is that Mr JOBS left the company, he was not asked to leave and left under his own free will. The latest news from the U.S. is that WOZNIAK has bought a large number of Apple shares. (I wonder if he will return to the Apple fold ?)

Apple have stated that they will continue the trend towards the open architecture that made the Apple][so great, this will allow third party producers to ensure a very wide range of hardware is available for all new machines. They recognise that IBM have the same policy and believe that this is the right course. The Macintosh sold 600,000 units during its first 18 months. This is twice as many as IBM sold in the same period. The amount of software now available is over 1000 packages and even Apple admit it is hard to keep count.

Apples policy for this year is geared around 1) Open Architecture 2) More power 3) Opening machines up for 3rd party development. They have started this mission by introducing the MacPlus. Also they have decided that in an effort to help software development by third parties they will no longer bundle software with new machines. The new MacPlus comes with the system and a Demo of various Apple Software Products.

A hint was made that slots will appear sometime this year - I will leave you to guess what that could mean. My general impression of the discussion that followed this meeting is that Apple are now in a position of strength, they know what the score is and are intent on winning more users to the Apple fold with sound judgment and superb machines.

END

The New BABBS Board.
An introduction by Tony Game

Since September Babbs has been running under new software which is completely different from that which I described in my last account of the bulletin board, and this is an attempt to explain how Babbs should now be used. I shall assume that the reader is a complete beginner.

First of all the baud rate is the same at 300/300 and the data word is still 8N1. Some time fairly soon it is hoped this will be extended to include 1200/75.

When first calling in you will receive a welcome and then be asked "What is your name?". This is really for registered users since their name will be recognized and they will be asked for their password. However newcomers should just type Return, and then say No when asked if they have visited before. They will now be asked to enter their terminal details.

The new software can use any line length from the 20 of a Spectrum owner right up to the 132 of Mac types. Enter whatever line length you want. Unless you know that you need nulls enter 0 to the next question. If you find that you miss characters at the beginning of lines this may need to be changed later.

Say yes to the question about linefeeds. Again if you find you are getting double spacing this can be changed.

Unless you know you can tab, say no to Tabs.

It is better to say yes to Beeps as they are useful warnings and there are not many of them. All the other questions are straight forward, and having answered them you will be asked for your name. One point here. Unlike many boards Babbs now wants you to put in your whole name, not first then second.

It is much better to use two names even if you have decided to use a pseudonym, (which I would really prefer you not to do).

Your password must not contain any part of your name. Do please write it down or do something to remember it. So many people don't and come on again under another name which soon fills up the user log.

You will now receive a welcome to Babbs and be placed in the Lobby. This is signaled by the prompt Lobby>. Babbs is divided into many rooms, and Lobby is reserved for messages from me.

Do read Lobby as any changes etc will be noted there, and a full list of all the rooms will always be in one of the messages. To read them just type R N Return. This is actually: [Read New messages Return].

Remember that if ever you are in doubt Babbs will give you a list of the commands you can use if you press ?.
Use this a lot at first. Pressing ? at Lobby> will show you. C/hat, D/eposit, G/oto, H/elp, K/nown rooms, L/eave Babbs, R/ead. These mean: Chat to the sysop if he is around; Deposit a message or a file, or Deposit password or configuration will allow you to change these; Goto will take you to any other room you then name; Help will tell you about help files; Known rooms will give you a list of the rooms that are on your known list and which of them have new messages; Leave Babbs allows you to log out; Read allows you to read messages, files, the visitors register, or the status of Babbs.

Each of these commands is entered by typing just the first letter. Notice that only the first few letters of the room name need be typed, unless you are going to a room for the first time when the full name will be needed.

It is important to understand that commands can be stacked. For instance typing R will produce Read. Press ? and all the commands that can be used with Read will be shown. Some of them are, N/ew messages, O/ld messages, R/everse, C/ontinuously, T/ext files, W/ard Christensen protocol. Use Help read if you want to know more about them.

Similarly D/eposit ? will give you a list of the Deposit commands. You can deposit messages, files, and as I have said change your password or configuration. Again remember the commands are all just one letter and can be stacked. Thus [Deposit Message Ward Christensen protocol].

At first only half a dozen rooms will be on your Known rooms list. There are many more rooms, and they are listed in a message in Lobby. Typing G/oto name will add any one of them to your list. If after looking at it you decide it is not for you then D/eposit H/ide room will take it off your list again. This is very powerful since you can tailor your use of Babbs to suit yourself.

Typing R/ead N/ew messages G/lobally will read all messages you have not yet seen from your Know rooms list. If you add W/ard Christensen then you will get them in protocol mode which will be useful if you suffer from poor lines.

After reading each message you will get another prompt, Action. Press ? to see what you can do here. You will get the following menu : A/gain, D/elete, N/ext, O/riginal, R/espond, S/top. Again will retype the message; Delete will delete the message if you wrote it or it is written to you (this is not available in Mail); Next takes you to the next message, or

back to the prompt if there are no more messages; Original will type the original message if the one you have just read is a reply (you can go any number of steps back in a chain with Original, and at any time Again will take you to the message from which you first typed it); Respond allows you to reply to the message, you will be asked whether you wish to reply in Mail or not. A reply in Mail is a private reply which will only be seen by the writer of the message you are replying to, otherwise your reply will be added to the messages in the room; Stop just stops your reading and returns you to the prompt.

In addition, when Babbs is talking to you, you can always use the commands: J/ump, N/ext, P/ause, S/top. These mean Jump to the next message, jump to the Next paragraph, Pause the scrolling, Stop reading and return to the prompt.

Depositing messages is now much simpler than before. You simply type in your message without Returns at all except, when you want to start a new paragraph. Babbs automatically formats your message so that it will be properly laid out for any reader whatever line length they are using.

If you are sending a message in Mail it will be a private message and you will be asked the name of the recipient. You will not be allowed to leave a message to anyone who is not registered on Babbs. A copy of your message in Mail will be put in your mailbox and another in the recipient's, and you will be able to see when it has been read because it will be marked in your box.

When you have finished entering your message type Return on an empty line and you will get the prompt Edit Option. Press ? to see what these options are and you will see : A/bort, C/ontinue, D/isplay, G/lobally replace text, M/erge lines into paragraphs, R/eplace Text, S/ave. Abort allows you to forget the whole thing, you will be asked to confirm; Continue allows you to carry on with your message; Display types out your message; Globally replace text allows you to change every occurrence of a group of characters for another group; Merge lines into paragraphs is explained later; Replace text allows you to replace one occurrence of a group of characters; Save saves your message.

It, as I have often pointed out, is much cheaper for you prepare your message off line, and send it in automatically, (remember you can now use Ward Christensen). You will find that your text editor probably inserts a Return at the line ends of your pre-prepared message. This is just what Babbs does not want because it spoils the formatting of the message for users of all line lengths. The option to M/erge lines into paragraphs takes care of this, and removes these redundant returns. Use it before using Save. If you send your message Ward Christensen (protocol) mode, this is done automatically for you.

There are now files of various types to be read as well as messages. Basug room contains files of meetings offers etc. These are read by R/ead T/ext file, and then giving the name. R/ead D/irectory will give you a list of the files. Apple-Dos contains some programs for you to download. Use R/ead F/iles W/ard Chris to get these. You will need to study your manual to find out how to do protocol transfers. If you have anything to share do upload it in the same way. It should be a text file and can be uploaded by D/eposit F/ile W/ard Chris. Tell me if you have done this and if possible leave some details of what the program does.

There is a good deal more but space means it will have to wait for another time. Remember that you can get Help on almost all subjects. Type H/elp ? to get a list of help files. It would be a good idea to print out help Menus and Help Commands, and in fact all the Help files if you really intend to use Babbs to the full.

You will quickly find that the new Babbs is not only very much faster than the old, but is much easier to use as well.

Finally I wish to thank Steve Underwood, the author of this new software which is called Tower-Net, both for allowing us to use it on Babbs, and for doing a lot of work to make it work under the Apple's somewhat idiosyncratic CP/M.

Special Note:-
Tony Game [BABBS SYSOP] runs the BASUG system in his own time and with little support - the BASUG Committee wish to thank him on behalf of all members, for the valuable service that he provides in such a friendly manner. BABBS is running on the most up to date software available at the present time.

END

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APPLE SHOW 86

Premier Cultural Show for

Apple II and Macintosh Users

on

Saturday 1st March 1986

at

West Midland Safari Park, Bewdley, Worcs. tel 0299 403418

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10.00	Show Opens	2.30	Basug Get Together
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12.00	Bar Opens	4.00	Competition Results
12.30	Lecture: Communications	4.30	Official Apple U.K. Talk
2.00	Lunch	7.00	Show Close

Admission by Ticket ONLY

Entrance fee of £4.00 inclusive of *FREE* Lunch & Lectures

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See you there and *"HAVE A NICE DAY"*

LOCAL GROUP NEWS by Norah Arnold

First London MacGroup Meeting

I spent an enjoyable evening with a small group of Macintosh enthusiasts who met on January 14th at London University Institute of Education, in Bedford Way, just north of Russell Square. The main item of the evening was the showing by Ronald Brown of some public domain software from the United States. Ron has been kind enough to offer some items for the BASUG MacSig Library and I hope they will be available shortly.

Some time was spent discussing the future intentions of the group. It was decided that meetings should continue to be held in Room 685 at the Institute of Education for the immediate future, gathering at 6 p.m. to start at 6.30. Each member attending would be asked to contribute 50p to the group's funds, in order to finance a newsletter to be produced by Peter Summers.

The next meeting will be on February 11th; general theme - Word Processors.

Herts & Beds Group - January Meeting

Thanks to all those members who turned out on the worst night of the winter so far. Falling snow and sleet, and slush up to the ankles, are not the best conditions in which to transport your precious computer and all the odds and ends that go with it.

Thanks to Stuart Wood for preparing a demo on Appleworks even if he never got to do it! Even more thanks to Louis Baker who brought his equipment out in such adverse conditions. In spite of the weather, a good time was had by all.

MidApple Group (West Midlands)

I understand that Guy and Richard Wilday gave a demo of several synthesizer/Apple systems at the November meeting, and among other things, some frenzied games playing took place at the December meeting.

Sounds as if they enjoyed themselves!

IMPORTANT ANNOUNCEMENT FOR GRAPHICS ENTHUSIASTS.

I was pleased to hear from Mike Siggins, an erstwhile member of the Herts. and Beds. group, to the effect that he has been appointed U.K. Chairman for ACM SIGGRAPH, the computer graphics special interest group of the American based Association of Computing Machinery. Mike feels that there are many user groups where graphics is a popular topic and yet there is no national user group or organisation concerned specifically with graphics.

Mike would like to hear from anyone interested in computer graphics on micros, whether it be hobby related, in educational or commercial applications, or professional users. Mike is hoping to co-ordinate a national scale user group and forum, eventually with a newsletter, meetings and possibly a public domain software library. Anyone interested is asked to contact Mike at the address below, enclosing an SAE:-

Mike Siggins, Chairman SIGGRAPH UK,
[illegible]

BAUD (Bristol Apple Users & Dabblers

BAUD now has a permanent home, and a regular date.
The first Friday of each month is the date, 7.30 is the time.
The place, the Meeting Room, Bristol Maternity Hospital, St. Michaels Hill, Bristol. This is by the junction of Tyndall Avenue. The Meeting Room, is to the right, just inside the main entrance of the Hospital Building. (Do not go to the deliveries door by mistake !....)

Contact Mike Farmer (Secretary) [illegible] for further details.

The meetings take the form of discussions and workshops (bring your Apple along), and at a suitable time, we all repair to the nearest pub to carry on the discussion. BAUD is one of the oldest local groups in existence.

New GROUP starting in GLASGOW

Wednesday 12th March 1986 is the date for the start of a NEW LOCAL GROUP in Glasgow.

The venue is Laboratory L5.01, 5th Floor,Department of Geography, University of Strathclyde, Livingstone Tower, Richmond Street, Glasgow. The meeting starts at 7.30p.m.

Why don't you pop along and have a good time - all welcome.

For more information contact: D.Davidson on:
[illegible]

An Apple II Based Image Digitising System for use with Immunoelectrophoresis Plates.

By T. E. Pritchard, J. E. Bateman and A. C. Flesher.
Published by the Science and Engineering Research Council.

An Abstract.

The Rutherford Appleton Laboratory, Chilton, Didcot, Oxon., collaborated with the Department of Immunology at the University of Birmingham on a project aimed at performing autoradiography on 2-dimensional immunoelectrophoresis plates (2-DIEP) by means of a multiwire proportional counter (MWPC) controlled by a microcomputer. The low data rate and limited picture resolution led them to believe that the project could be carried out on an Apple II. In order to compare the stored digital autoradiographic image from the MWPC system with that on a stained plate, it was necessary to digitise an image of the plate and store the data on disk.

The hardware chosen was an Apple II with two Apple disk drives running under DOS 3.3. A Microworks DS-65 Digisector card was in slot 3 of the Apple, and was driven by the software supplied on disk. The use of the Microworks DS-65 card meant that the video output of a conventional black and white television camera could be used. The 2-DIEP slides were mounted with the television camera in a black painted box and illuminated through a diffusing screen.

The digitised images produced initially were extremely noisy showing up to 10% variation on a uniform field. Tests were carried out to see how the noise improved with some signal averaging. It was found that an average of 16 scans was about optimal, any residual noise probably being the non-uniformity of the plate used as a test sample. The original Digisector output enabled the image to be stored in 64 grey scales, but the process of averaging 16 scans meant that the 256 grey scales in the final image considerably improved the resolution.

Normalising the image of a 2-DIEP plate to that of a blank plate already on disk calibrated out any intensity modulation arising from the camera response and the illumination system. No correction of the geometrical distortion in the television optics was provided for initially as distortion was negligible with the camera used.

The main problem lay in identifying the parts of the operation which could not usefully be done in BASIC and needed to be done in Assembler. The relatively large picture files were packed into the minimum space by extensive use of the Apple DOS routine RWTS. Although the disk files produced are non-standard, provision was made to enter the name of these files into the Apple DOS directory so that the user may CATALOG the disk. Compiled BASIC was used for the normalisation procedure which required floating point operation.

The stored images were intended to be displayed in two ways. Firstly, they could be shown on the Apple monitor using a five grey scale display package, or secondly, they could be transferred to a larger computer system for more sophisticated analysis and display.

An effective image digitising system suitable for 2-DIEP plates was built up at relatively low cost, the Apple II, of course, being available for other tasks when not engaged in digitising images.

This abstract appears with the permission of Dr. Bateman, who is a member of BASUG.

END

Small Adverts

FOR SALE

Apple][Items.
Complete PRESTEL package, includes:- Modem, Comms Serial Card and Communications Software. £65.00
Apple //e Colour Modulator Card for Television. £20.00
Apple Quickfile:- Database Management System. £30.00
PRODOD Users Kit. £25.00
Contact Terry Cymbalisty Telephone [illegible] All are complete with manuals and disks, Hardly Used and in MINT CONDITION.

Macintosh
Microsoft Multiplan complete with manual. As NEW and a bargain at £55.00
Telephone Ken Gaston [illegible] After 1900 hours or weekends.

BOOK REVIEW

Title: Using and Programming the Apple //c including ready-to-run Programs
Authore: Tony Fabbri
Published: TAB Books Inc.
Distributed: John Wiley & Sons Ltd.
Price: £13.00

Here we have yet another book cashing in on the //c bandwaggon. At the start we have about two pages devoted specifically to the //c, and there is a chapter devoted to the mouse and Mousepaint. Nowhere I could find had a mention of double-hi-res graphics. I got the impression that the writer had written a general tutorial book on the Apple series, and decided at the last moment to rename it. I suppose the //c in the title was meant to increase sales.

Taking it as a tutorial book on Basic and the Apple series. It tells us how to set the machine up, and format discs. It is mainly concerned with the Basic language, and will serve as a reasonably good primer. If the programs are followed through, little explanation is given on how Basic works, the statements are given as listings, and you are expected to find out for yourself what they do. There are many listings sprinkled throughout the book, but as most are of the House repayment/Tax deduction type of program, beloved by the American magazines, were not of great interest to me. Two programs included, were named Cable Television Scheduler and Satellite Dish Scheduler, I suppose giving us a foretaste of the future.

There are some 266 pages in the book, and if you have no other primer other than the new-style system manuals now provided with Apple machines, this book will at least give you an insight into using the machine beyond running commercial programs. However I found its hotch-potch approach very confusing, and would have preferred more detail than the interminable listings. I have seen much better Basic primers than this.

Ewen Wannop.

END

HELP WANTED

Mr David Pearce of Seaford is desperate for the loan of a BITSTIK 1.2 Manual. It is out of print. He is willing to pay postage etc.

If you can help please contact him on : [redacted]

Apple][e Enhancement Kit. by Mr K.Kishimoto.

Users of the Apple][e who have monitored the Apple scene in the U.S. will not have failed to notice the existence of the][e enhancement kit. This kit, which has been available in the States for several months, has now been introduced to the U.K. market.

The][e enhancement package, available from Apple dealers for £60 consists of a 65C02 (CMOS version of the 6502), a character set ROM and two ROMs to replace the old monitor routines (CD & EF). Also included in the package is a Manual (About your enhanced Apple][e: Users Guide), installation instructions and a stick on label for the power light indicator.

Installation of the kit takes about thirty minutes, depending on previous experience. To aid the removal of the old ICs, a chip puller was included. In practice, some of the chips were firmly embedded in their sockets and required some encouragement with a small screwdriver. Care has to be taken to prevent any of the chip legs from being bent when installing the new chips. They need to be pushed home into the sockets to ensure good contacts and to prevent unexplained malfunctions at a later stage.

Although the packaging for the kit warns that dealer installation is required, in general, experienced hardware hackers should not have any serious difficulties.

On powering up, the screen displays 'Apple //e' instead of the old 'APPLE][' logo. The behavior of the machine however remains unchanged. The enhanced //e allows BASIC commands and programs to be entered in both upper and lower case. It should be noted however, that although PRODOS includes this feature, DOS 3.3 still requires upper case commands to be used.

The primary reason for the introduction of the //e enhancement was to provide compatibility with the //c and allow more efficient use of the mouse. The character ROM now includes the full complement of MouseText symbols which replaces some of the original characters. It is now possible to have a Mac type window environment on the text page of the Apple //e. Additional features of the enhancement include improved interrupt handling, extended 65C02 instruction set and a resident Mini-Assembler (of the Integer Basic variety).

The 128k enhanced //e will, with minor modifications, run the //c Utilities disk without apparent problems. This includes pop-up help windows and most of the resident routines. The modifications to the //e monitor routines and character set does, however, introduce some problems. Although nearly all of the packages tried (including games, CPM and Pascal) functioned correctly, some 80 column software replaced inverted characters with its mouse equivalent. This in itself

was not a serious problem as the programs still ran without any apparent difficulties. The only program which refused to run was 'Doublestuff', the double resolution graphics package. Most programs should however run without difficulties.

Included in the kit are two rather thin manuals. The installation instructions were more than adequate for the job, providing illustrations of the main circuit board and chip numbers. The part numbers of my ROMS, didn't match the illustrations in the manual. That may be due to the age of my //e (Jan 83). The Users Guide, like the //e Owners Manual, is really nothing more than a brief overview providing little hard information on the enhancement and use of its various features. The Guide does make reference to a Programmers Guide available at 'no extra cost' from your dealer. I have at the time of writing, been waiting over a month for the manual without any luck. If the manual is free, surely it should have been included with the package.

Recently introduced to the U.S. market is MouseWrite (Roger Wagner Publishing Inc) a word processor which makes full use of the enhanced 128k //e or //c with windows and mouse control of its various functions. Other packages such as MouseCalc (International Solutions) which use Double HiRes graphics can apparently do without the enhancement (128k //e or //c required) and its specialised character set.

Finally, whether the enhancement is required or not will depend on the individual user. It has been suggested that I buy a //c in order to obtain these features. In my view, the open architecture of the //e allows far more flexibility in customising (as my machine is) to personal requirements.

END

AppleWorks:Custom Printer Page Length (PL) Bug

AppleWorks seems to enter it's own control codes when changing page length independent of the printer selected. To duplicate this problem with an ASCII text file do the following:

1. Create a document with the open-apple-O code "PL" set to a new length.
2. Print the document to a Ascii text file.
3. Load the Ascii text file into AppleWriter (which displays control characters). AppleWriter will display the control code that would have been sent to the printer.

We have at least one non-Apple printer in the field that this custom command hangs the whole system. Do you have any suggestions?

This bug is real and has been reported to the USA. .Although it is a slim chance that they will address this problem in the next revision since it is the first time in two years of product life that it has been reported.

Appleworks on the Cirtech FLIPPER by Dave Ward.

1> Boot the Program Manager disk supplied with the FLIPPER and select the number of workspaces you require. The Main Menu will appear.

2> Select workspace 1 and you will be requested to insert a disk into drive [1]. Insert your Prodos Users disk 1.1.1 or later. Select [F] the Prodos Filer.

3> Next select [V] from the Filer menu. A new menu will appear and you should select [F] for formatting a volume. You will be asked for the slot in which the volume resides, enter the slot number where your FLIPPER card is installed. You will next be asked for the name of the volume. I used /R but you may choose anything you like. If /RAM2 exists enter [Y] to destroy it !

4> Exit by pressing the [Escape] key twice and then choose [F] for File Command. Select [M] to make a directory and then choose /R/APPLEWORKS and press [RETURN]. Press the [ESCAPE] key after the message 'Make directory complete' appears.

5> You now require to copy over the files PRODOS and BASIC.SYSTEM to make your ' Ram disk' /R bootable. Choose [C] Copy Files from the menu and enter [?] in response to Copy Pathname followed by [RETURN]. Next enter [/R/?] and press [RETURN]. You will be prompted by a filename, press [Y] when PRODOS or BASIC.SYSTEM appear else press [N]. When both files have been copied press the [ESCAPE] key.

6> The next phase is to copy the files from you Appleworks disks to the 'Ram disk' . Place your Appleworks startup disk in drive [1].

7> Enter [/APPLEWORKS=] and press the [RETURN] key. Next enter [/R/APPLEWORKS/=] and again press [RETURN].

8> When this is completed remove the startup disk and replace it with the Appleworks Program disk in drive [1] and copy it to the 'Ram disk' by following <7> above EXACTLY.

9> Exit by pressing the [ESCAPE] key twice and the [Q] to quit. Finally enter [/R/PRODOS] and the 'Ram disk' will be booted - magically in a little over a second the BASIC prompt] will appear. Now type the following lines :-

```
NEW
10 PRINT CHR$(4) "-APPLEWORKS/APLWORKS.
   SYSTEM"
SAVE STARTUP
PR#2                    (FLIPPER in slot 2)
```

You should now be in the Main Menu of the Program Manager. Select [2] and backup the 'Ram disk' onto Flip disks. You will be prompted when to enter disks. You will now be able to restore your 'Ram disks' when you startup the Apple.

10> It took me about 20 minutes to setup each 'Ram disk' and made backups in about 3 minutes. Restoring took about 3 minutes also. However, Appleworks boots from the 'Ram disk' in a little less than 5 seconds! and during use Help-screens appear instantaneously. Also there is no wait while overlays are loaded if you want to Print etc.

If any members are interested I could include FLIPPER setup instructions for other packages in future editions of HARDCORE.

Eds note:- [and] characters are only used to highlight those characters that need entering. i.e. [E] means press the E key.

END

APPLE ///
NICE MACHINE - NO SUPPORT !
by Irene Flaxman

We have seen occasional letters in Hardcore, asking for information on Apple ///. This suggests that other Apple /// owners, like ourselves, have had difficulty in getting support from dealers.

Our own sorry tale begins when we purchased our Apple /// in February 1982 from a local dealer. Whenever we ordered software or asked for information, we hit problems. Finally, in April 1983, the dealers wrote to advise us that they had decided to discontinue their support for the machine some twelve months previously! We were hardly surprised, considering their attitude to our questions, but did wonder why it had taken them so long to tell us. If they had told us when our warranty ran out, at least we would not have been forced to wait for software they had supposedly ordered for us! Anyway, enough of the negative attitude and moanings!

The Apple /// is a super machine, and we have since upgraded from 128k to 256k.

Our only regret is that it does not seem to have taken off in this country, and is consequently not as well supported as the Apple][series.
However, we have written to the States, to an organisation called AIM (Association of Independent Microdealers Inc), who purport to support the Apple /// in particular, describing their list as 'a collection of products pooled to one clearing house location for your convenience'.They sent us a copy of their monthly newsletter which lists Apple /// products they have for sale at reduced prices. The items for sale include new and second-hand software (and hardware?). The prices vary according to the age and condition of the item - each is indivually priced.
Some products are described as 'closeout items and are at substantial discounts', but these are only guaranteed for a period of ten days. Other items are not sold off as cheaply, but are claimed to be fully supported by the manufacturers.

We have not actually ordered anything from AIM, and one has always to consider the dangers inherent in importing products directly - in this case, it would not seem feasible to take advantage of the very cheap rates, if products are to spend some time delayed by the post.

However, for anyone who is interested, the cost of the newsletter is US$2.00 (postage & handling), and the address of this organisation is:

3010 North Sterling Avenue, Peoria, IL 61604, USA.

Anyone interested in exchanging ideas or information on Apple ///, please let Sheila know via the P.O.Box.

END

PINPOINT

A new desk-accessory package for Apple Works from Pinpoint Publishing is available in the States, so we 'phoned Pinpoint and ordered a copy - it's so easy to get software from the States with a credit card, the only trouble is you have to pay import duty! Anyway, it has arrived, and we found the following utilities included:

1. Appointments calander
2. Calculator
3. Communications
4. Dialer
5. Graphmerge
6. Notepad
7. Quicklabel
8. Typewriter

Our only other problem was that we had an Apple//e, and the suppliers did not make it clear that the packege works only with an Apple //c or an enhanced //e. Still, the enhancement kit was not expensive, and will make our machine compatible with other //c software.

We haven't tried out all the facilities yet, but will give a review of them in the next issue.

I.Flaxman

KERMIT
or a great leap for file transfers.

DOS 3.3 Disc Now in the BASUG software library.

Anybody who has tried to receive or send a disc file over the phone network, will appreciate that our phone system is not ideal. The slightest bit of noise can cause corruption of data. This may not matter in a text file, but can cause havoc in a binary program file if only one byte is wrong.

Various methods have been put forward to stop this happening. The most notable is the XMODEM method of file transfer invented by Ward Christensen. This has now been expanded into the YMODEM protocol, that uses a Cyclic Redundancy Check (CRC) rather than a simple checksum, if both ends can support it. I will not go further into this protocol, as it has been well documented elsewhere, but suffice it to say that it is not totally robust, and does not exist on all machines or databases that you may wish to access.

In an effort to make a really robust protocol, and one that could fit on any machine, KERMIT was evolved. KERMIT works in a similiar way to the Ward Christensen protocol, but has more options and a more robust protocol, and allows the transmission of filenames automatically. It is the brainchild of Columbia University, though others have now had a hand in its development. The most notable aspect of the protocol, is that it exists in versions for nearly all micros and mainframes. All the versions of KERMIT itself must be in the public domain, only media and handling charges can be made. It must be easily available to all, and be held in the library of every user group or club. The protocols however, now exist as parts of larger terminal programs such as Red Ryder on the MAC, though of course these programs are chargeable for their other content.

It should be stressed that this is not a complete communications program, it is intended as a text file transfer utility only. Some limited terminal capability is available however from within the program, but is restricted to that available from any onboard software on the serial card or port that is used.

There is no capture buffer, editor, macros or other facilities normally found on a full terminal program, and files other than text-files will have to be converted to TEXT files before and after transmission. So though you can use KERMIT-][for simple communications, you will have no other facilities than you have already, apart of course from the robust file transfer facility. It should be an adjunct to a good terminal program, not a replacement, it will not for instance be able to upload a file to the FORCE, which does not support KERMIT, but it will download a file from the SOURCE, which does.

The Apple-][version in our library has in-built support of five serial cards and displays on the Hi-Res graphic display, in 40 or 70 columns. The serial cards are, Apple Super Serial card, the Apple Communications card, CCS7710A card, the Hayes Micromodem and the Novation Apple-Cat modem. The //c can be used by selecting the Super Serial card option. This version will only send or receive TEXT files.

There are both a descriptive file and instruction file on the disc, and a simple reader is provided to allow viewing either by the 40 or 80 column display, or to send to a printer port.

Of course not having KERMIT in the first place, I had to download the files on the disc from COMPUSERVE in the States, using Ward Christiansen protocols. The transfer was smooth and all that remained was to prepare the disc and instructions for the library.

Ewen Wannop

END

Beginners article.
by Tom Wright

So there I was minding my own business when the door opened and in walked this chap. " I'm doing a course which includes some BASIC computer programming " he said. " I've had a go at it but I can't get my program to print the right numbers against each of the years ". " Will you have a look at it and tell me how it ought to work ?, I must be able to understand your methodology ". After I had made some notes he gave me a copy of his program and left.

I suppose that many of you have had similar experiences, or like myself can remember asking questions yourselves. As you'll see from my listing (No 1) I still have a lot of questions to ask.

That night I looked at my notes and the listing and decided that his problem could be solved by using NESTED LOOPS.

The problem he had written his program for involved the following, from a starting point population of 4000 million in 1985, he had to be able to print the result of population growth at a rate of 5%, 10%, 15%, and 20% per annum. Resultant total population for ten year intervals was to be printed together with the equivalent population per square mile.

I gave him the following listing together with a set of notes explaining CALLS etc., next day he was happy with it because he could understand it. The formula for the calculation of square surface area is his since I have to take my shoes off to do anything more complicated than counting to ten.

LISTING EXPLANATION

LINE 550 sets TEXT mode, clears the screen and returns the cursor to the top left hand corner of the screen.

LINE 560-600 print the column headings, CALL-998 is a useful command that moves the cursor vertically one line up the screen.

LINE 610 fixes the column headings in position so that they will not scroll. This is achieved by creating two windows, the first of which in this case consists of the top six lines of the screen, the remainder of the screen being given over to the second window. Use of the POKE 34 command places the cursor in the top left hand corner of the second window, subsequent printing will not therefore affect what is displayed in the first window. If you are test running a similar program at any time you can restore the screen to a single full size window by typing TEXT then pressing [RETURN].

LINE 690 establishes a constant value for the variable S (SURFACE AREA).

LINE 700 defines constant factorials for the four percentages, with (variables) FA,FB,FC and FD representing 5%, 10%, 15% and 20% respectively.

LINE 710 establishes starting values for the variables TA, TB, TC and TD which all have to start at 4 (thousand million total population in 1985). NOTE: Starting values have to be established prior to entering the loop.

LINE 720 establishes the starting value of 1985 for [Y] (YEAR).

LINE 790 is where the counter is set for the number of years, in this case coverage of 100 years in 10 year increments was required so the counter is set to 10. No display of 1985 data was required. The RETURN point for the main loop is in LINE 1050.

LINE 800 is where the value for (variable) [Y] is updated by adding 10 to it each time the main loop cycles. The first time through the loop the value will be 1985+10, the second time it will be 1995+10, and so on.

LINE 870 is the NESTED LOOP sets the counter for four entries per year. During each cycle of the main loop the nested loop will be executed four times to calculate the total population against each percentage. The RETURN point for the nested loop is in LINE 1010.

LINE 880 prints the current value of variable [Y] (YEAR) for each cycle of the NESTED LOOP.

LINES 890 - 920 are used to :
a) select the appropriate percentage factor (eg FA) and make the variable [F] equal to it (F = %age factor).
b) select the appropriate population total (eg TA) and make the variable [T] equal to it (T = total population).
On the first cycle of the NESTED LOOP within the first cycle of the MAIN LOOP, LINE 890 will effectively be : [II] will equal 1 : [F] will equal [FA] (1.62889) : [T] will oqual [TA] (4).

LINE 930 updates the total population figures by multiplying the variable [T] by the variable [F]. It also moves the cursor across to the 9th column and up on line to enable the printing to be on the same line as the year number [Y].

LINE 940 calculates the population density by multiplying variable T by 1000 then dividing by the surface area constant [S]. The cursor is then moved to the 25th column and up on line, [PD] is then printed on the same line as [Y] and [T].

LINES 960 - 990 update the variables [TA], [TB], [TC] and [TD] to equal the current calculated value of [T], dependent on which of the four cycles of the NESTED LOOP are being executed.

LINE 1010 is the RETURN point for the NESTED LOOP, each time this point is reached the routine will RETURN to LINE 880 until the counter has passed 4 when the routine will continue to LINE 1020.

LINE 1020 prints a request for the user to depress a key.

LINE 1030 causes a pause until a key is pressed

LINE 1040 is a useful command which CLEARS the window in use in a similar manner to the HOME command, the cursor is returned to the top left hand corner of the window.

LINE 1050 is the RETURN point for the MAIN LOOP, each time this point is reached the routine will RETURN to LINE 800 until the counter has passed 10 when the routine will continue to LINE 1060.

LINE 1060 RETURNS the display to a single full screen window. It clears the display and places the cursor in the left hand corner of the screen. The program is then ended although it is still in memory and can be re-run by typing RUN and pressing the [RETURN] key.

LISTING 1

```
500 REM  CLEAR SCREEN
510 REM  PRINT TITLES
520 REM  CREATE WINDOW
530 REM
540 REM
550 TEXT : HOME
560  HTAB (9) : PRINT "POPULATION"
570  HTAB (13) : PRINT "IN": HTAB
     (23) : CALL -998: PRINT "PO
     PULATION DENSITY"
580  CALL -998 : HTAB (10) : PRINT
     "THOUSAND" : HTAB (26): CALL
     -998 : PRINT "MILLIONS PER"
590  PRINT "YEAR" : HTAB (10) : CALL
     -998 : PRINT "MILLIONS" : HTAB
     (26) : CALL -998 : PRINT "SQUARE
     MILE"
600  PRINT "----" : HTAB (9) : CALL
     -998 : PRINT "---------" : HTAB
     (23) : CALL -998 : PRINT "--------
     ---------" : PRINT
610  POKE 34,6
620  REM
630  REM
640  REM  SET START CONDITION
650  REM  FOR CONSTANTS
660  REM  AND VARIABLES
670  REM
680  REM
690  S = ((4 * 3.1416 * (3984 ^ 2)) *
     0.3333)
700  FA = 1.62889 : FB = 2.59374 :
     FC = 4.04556 : FD = 6.19174
710  TA = 4 : TB = 4 : TC = 4 : TD = 4
720  Y = 1985
730  REM
740  REM
750  REM  SET COUNTER FOR
760  REM   MAIN LOOP
770  REM
780  REM
790  FOR I = 1 TO 10
800  Y = Y + 10
810  REM
820  REM
830  REM  SET COUNTER FOR
840  REM  NESTED LOOPS
850  REM
860  REM
870  FOR II = 1 TO 4
880  PRINT Y
890  IF II = 1 THEN F = FA: T = TA
900  IF II = 2 THEN F = FB: T = TB
910  IF II = 3 THEN F = FC: T = TC
920  IF II = 4 THEN F = FD: T = TD
930  T = T*F: HTAB(9): CALL -998:
     PRINT T
940  PD = (T*1000)/S: HTAB(25):
     CALL -998: PRINT PD
950  PRINT
960  IF II = 1 THEN TA = T
970  IF II = 2 THEN TB = T
980  IF II = 3 THEN TC = T
990  IF II = 4 THEN TD = T
1000 PRINT
1010 NEXT II
1020 PRINT: HTAB(6): PRINT "PRESS
     ANY KEY TO CONTINUE"
1030 GET KEY$
1040 CALL -936
1050 NEXT I
1060 TEXT: HOME: END
```

The chap who brought the problem to me has now modified the routine himself and has it printing the percentage figure against each line. During discussion with him, listing number 2 was developed for printing the same kind of output to a printer, as you will see no nested loop is required.

LISTING 2

```
500 T = 4
510 FA = 1.62889: FB = 2.59374: FC = 4.04556: FD = 6.19174
520 S = ((4 * 3.1416 * (3984 ^ 2)) * 0.3333)
530 FOR I = 1 TO 10
540 Y = 1985 + (10 * I)
550 PRINT Y;"    ";(T * (FA ^ I));"    ";(((T * (FA ^ I))) / S
560 PRINT Y;"    ";(T * (FB ^ I));"    ";(((T * (FA ^ I))) / S
570 PRINT Y;"    ";(T * (FC ^ I));"    ";(((T * (FC ^ I))) / S
580 PRINT Y;"    ";(T * (FD ^ I));"    ";(((T * (FD ^ I))) / S
590 PRINT
600 NEXT I
```

Thanks to Tom for this article, as always we welcome articles on any Apple subject. If you have any send them to the P.O.Box either on a disk (5 1/4 or 3 1/2 inch) or typed. Or if you are on the FORCE send them to BSG006.

END

XMAS WORDSEARCH WINNER

Congratulations

TO

Mr LEN MARLOW of Folkestone who has the pleasure of owning £15's worth of BASUG goods.

THE BEGINNING OF MINDWHEEL
A review by Guy Wilday

When I was given a copy of Mindwheel and asked to review it I realised that it was obviously a very new type of adventure game, an Electronic Novel.

An Electronic Novel involves initially reading a short book/manual and then diving into the computer to continue where the book leaves off, and enter 'a fictional universe constantly changing, with you in the centre of the action.'

This text adventure begins with you as a mind adventurer aiming to save your world from self destruction by entering the minds of four people :-

Bobby Clemon, an assassinated rock star, who made the anthems of freedom and pleasure for a generation.

The Generalissimo, a dictator and war criminal, who was executed for some very horrible crimes and now has a considerable following.

The Poet, a passionate, many-minded genius who wrote poems in the hope that he could earn enough money to marry a princess he was hired to tutor. Her father put him to death after discovering the romance.

Dr.Eva Fein, 'the female Einstein', honored for earthshaking work on the nature of matter and energy. She was a school mate of The Generalissimo but fled his regime, and then developed the horrible weapons that defeated him.

After entering the four minds and solving all the problems met, the Cave Master will be encountered. The Cave Master is a prehistoric, ape like being who invented the primary tools of our culture, and safeguards the Wheel of Wisdom, the object of the quest.

All that may seem very complex and indeed it is. The game continues the same standard set by The Hitch-Hikers Guide To The Galaxy and is similar in many ways. Mindwheel was written by a poet and involves a certain amount of humour though the main language involved is very flowery and vivid. Some of the problems involved are therefore completing poems and other extremely difficult tasks involving English usage.

The program will except most common language and will also allow the use of very long and complicated sentences, ve.; similar to those initiated in the Infocom adventures. Another difficulty involved in the game is that certain parts are different every time it is played, so saving the game is obviously of even more importance but it does mean that new problems can be encountered and solved.

A new copy protection method has also been adopted by the manufacturers which involves being asked to enter a word from a line of a page of the book/manual supplied. Quite a quick and simple entrance system which was quite ingenious on behalf of the manufacturers.

Generally, I do not enjoy text adventures and The Hitchhiker's Guide To The Galaxy was the first to really attract my attention. The very descriptive text and the ability to enter complex sentences makes up in many ways for what it lacks in graphic excitement. A game which no keen adventurer should be without.

MINDWHEEL an Electonic novel.
Supplied for review by-:
M.G.A. Microsystems,
140 High Street
Tenterden , Kent TN30 6HT
Telephone 05806 4278

HOTLINE NEWS

DAVE WARD - TELEPHONE [illegible]

By the time you read this I shall have been running the HOTLINE for just over a month having taken over from Chris Williams on the first of January 1986. From reports I have heard this will be a hard standard to follow.

The HOTLINE will be available most nights between 7 pm and 9 pm except weekends.

I will do my best to answer questions directly and as quickly and as fully as possible. However, there are areas where I may be unable to answer your question myself and may have to direct your enquiry to another expert. All HOTLINE experts including myself, are volunteers and cannot therefore be expected to return calls. Please do not hesitate to ring because you feel that your query or problem is dumb or simple because I appreciate that if you have a question that needs an answer then it is very important to you.

You may be interested to hear of the sort of questions that have been dealt with so far this year.

APPLEWORKS - a variety of questions regarding non-standard interface cards (We now have some patches which will solve many of the problems).

HI-RES GRAPHICS - queries about machine code programming and printer dumps.

COMMUNICATIONS - between APPLE and other computers.

DOS - changing volume numbers of standard formatted diskettes.

LISA - How to connect printers and who supplies them.

These are just a sample to indicate the very wide range of questions that are asked.

UNRESOLVED QUESTIONS - if you know the answer drop a line to HARDCORE.

1---> A member has a blown Saturn Accelerator card which he could repair if he knew the identity of the chips on that board. Saturn have, of course, erased the markings.

2 ---> A member has a Vision-80 card which appears to have dark vertical lines between the text. Is this normal ? If not does anybody know how to fix it.

Would any BASUG members who feel that they have expertise in any APPLE related areas and would not object to the occasional call by other members please contact me. I shall be at the APPLE SHOW at The West Midlands Safari Park on March 1st where we are running a help and advice service and it would nice to meet both existing volunteers and new ones.

CLUB NEWS

BASUG Ltd.

NOTICE OF THE ANNUAL GENERAL MEETING

Notice is hereby given that the 1986 Annual General Meeting of the British Apple Systems User Group (BASUG Ltd) will be held at 1100 hours on Saturday 12th April 1986.

The meeting will take place at the Sandwell Training Association ITEC, Tildasley Street, West Bromwich.

All members are cordially invited to attend and to participate. Members will receive with this Hardcore an Agenda and the Statement of Accounts.

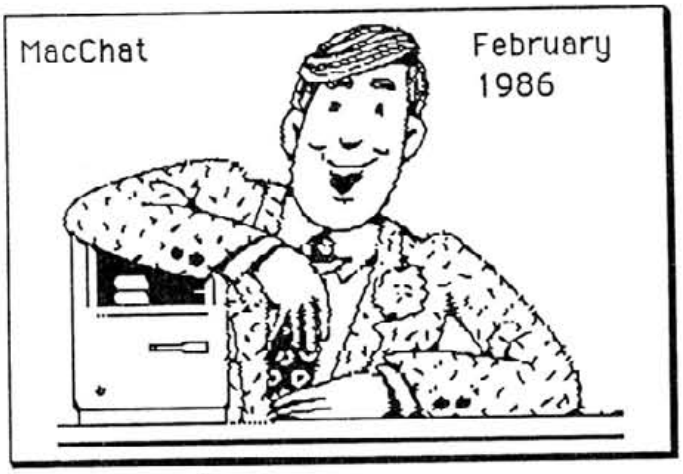
Hello once again in this regular spot to inform all our members of what is happening and what is planned.

The next highlight of the BASUG year is the Apple Show 86 at Bewdley, we intend that this will really be a show that all Apple Users should attend especially OUR MEMBERS. The committee will be there in FORCE and hope that we will be able to meet those members who do not live SOUTH OF WATFORD. We have had our passports stamped now and Customs have allowed us out for the day.

As you will see from the notice above, the AGM has been moved forward from June/July and from the London area, we have arranged a workshop that will include lectures on Speedloader, Desktop Publishing, the Cirtech Flipper card and Darkstar Hardware and Software.

The full range of BASUG Services will be represented and you will be able to purchase Software Library Disks after you have had the opportunity to try them on one of the 16 Apple machines at the meeting. Special Prices will apply for the AGM, i.e. Software Library disks at £4.00 each. MacLibrary Disks at £7.50 each.

Right I had better get the helicopter warmed up - BEWDLEY here we come !!!!!!!!!



MacPlus Software Upgrades.

Omnis 3.

Blyth Software were showing the latest version of the Omnis 3 package for the MacIntosh - this has now been upgraded to use all the memory and speed of the new MacIntosh Plus.

From what I saw it looks the same, but looks are not everything and this British product now works faster on the new MacIntosh.

Using the extra memory and with the aid of the Switcher you can transfer information between Omnis 3 and Multiplan, Excel or Jazz.

I have no news of upgrade policy yet - I hope to be in a position to advise you in the next issue.

For further information contact: Blyth Software Ltd, Mitford House, Benhall, Saxmundham, Suffolk IP17 1JS. Tel (0728) 3011

Jazz.

Lotus were showing a brand new version of Jazz - it is version 1a and has been designed to use the new 800k drives and the extra memory of the MacIntosh Plus.

I saw this new version at the Apple Launch and it was very impressive in the speed enhancement that the new Mac gives it. The new features are that you can now put Jazz on to a hard disk without problems and you do not have to put the key disk in when booting it.

The entire Jazz application is now on one double sided disk therefore allowing an external drive to be used for data. It allows faster Laserwriter printing and supports the new keyboard. Jazz now makes use of the hierarchical filing system and you can convert files from Symphony or 1-2-3.

The really good news from Lotus is that you can upgrade existing Jazz to the new release very cheaply, if you have purchased JAZZ on or after 16/1/86 you will have a free upgrade - those who purchased before will have to pay £20 inclusive of VAT.

Lotus plan to write to all registered users to invite them to upgrade.

You can contact Lotus at Consort House, Victoria Street, Windsor, Berks SL4 1EX. Tel (0753) 840281.

Microsoft Mac Products.

All Microsoft's Business products will work on the MacIntosh Plus, however I can only quote from the press release pushed into my hand just before the launch had ended !.

I would suggest that any would be purchaser contact Microsoft to ensure that their software will use all the new features of the MacIntosh Plus.

You can reach Microsoft at Excel House, 49 DeMontfort Road, Reading, Berks RG1 8LP Tel: (0734) 500741.

MacIntosh Plus Hardware News.

Small Computer Systems Interface

The new SCSI interface will allow many new and fast 3rd party hardware products to be hooked up. Up to seven devices can be daisy chained and the speed of this industrial standard interface is much higher than previously available. We hope to be able to get the technical blurb shortly.

Symbiotic SCSI Hard Drives.

Symbiotic have announced that they have a new range of hard drives from 10MB to 120MB and an optional integral tape streamer.

They also state that because of the interface you can boot direct from the hard drive - you can throw your floppies away !

By the way the tape streamer can back- up 40MB in eight minutes. This is the start of a new wave of hardware for the open Mac.

Apple announce new Mac products to enhance the MacIntosh Plus.

800K Double Sided Drives Inside & Outside the Mac

Apple expect to start shipping new external 800k double sided disk drives in a few months - this means a 1.6MB capacity on the humble Mac. The new drive should be the same as the internal drive of the new MacIntosh Plus.

The 800k drives are about twice as quick as the 400k drives and they hold twice as much information - I am not sure if the manufacturer has changed but hopefully I will have the technical data for the next Hardcore.

Mac owners will be able to use this drive with 512k Macs once they have had the ROM / Disk Drive upgrade. By the way from a picture, this new drive is almost a half-height one compared with the 400k version.

END

TRY THIS !

A rather keen games player, D. Dillow of Celtip Computers, just happenned to be playing his favourite game of Airborne on Christmas Day, when he saw something strange on the screen - The CACTUS had changed to a CHRISTMAS TREE !!!! No I have checked and Mr Dillow was not drunk. You can try it by setting your clock/calendar to the 25/12/8?.

END

THE LONDON MAC GROUP IS UP AND RUNNING WHY NOT ATTEND AND ENJOY YOURSELF IN GOOD COMPANY

SILICON BEACH SOFTWARE

Accessory Pak 1 £34.95
Featuring Paint Cutter

NEW! Silicon Press: £74.95
Now you can create all the forms you need - exactly right, easily, no fuss.

Airborne!: £27.95
The classic action-packed adventure.

Enchanted Scepters: £34.95
Featuring RealSound - sound like you've never heared it on your Mac before ... a text, graphics, and sound adventure game.

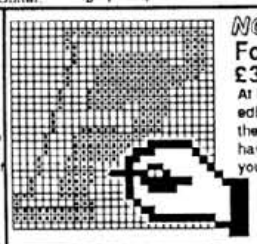
FileFinder £24.95
The Desk Accessory Apple forgot. Copy, delete, rename, or get information from inside an application.

TMON: £84.95
The interactive, Multi-window Monitor/Debugger for the Mac. An absolute MUST for any serious development work.
Note: TMON is not for novices

SS/SD 3.5" Disks: You've been paying too much!
Bulk, unlabelled: £1.99 each
Boxed, labelled: £2.70 each
Guaranteed, quality disks from reputable companies such as Maxell or Fuji. MINIMUM ORDER: 20 DISKS

YES! IT'S HERE AT LAST!
NEW!
MacAuthor
More than a word processor
The British program that everyone wants.
The easy-to-use word processor for professionals too ... MacAuthor, the electronic authoring system. Scripts, scientific papers, correspondence, poems, manuals, novels, articles .... you name it ... this is the ONLY one. £189.00

MacSerious Helpfull Hint Number Two
You can print several files at once by selecting them from the desk top and choosing PRINT from the Finder File Menu. There's a free copy of Airborne! to the first one of you to write telling us which program advertised here let's you print in the background while using the program. HINT: It's a sort of program that usually leads to lots of printing.



NOW HERE!
Fontographer : £345.00
At last - the professional font editor that makes FULL use of the Apple LaserWriter. If you have a LaserWriter, maximise your investment NOW.

FONTastic : £44.95 Create you're own fonts - the easy way!

Get your files organised with

£34.95

MacNosy: £70.00
Note: MacNosy is not for novices
The disassembler for the rest of us. The most powerful tool there is for exploring your Mac's MC68000 and learning how others code.
Commented ROM listing: £30.00
MacNosy + ROM: £95.00
MacNosy v.2 & commented 128K ROM available in February. Call for details

free the ROM 64

MacStronomy: £69.95
The Mouse that Soared.
Featuring:
The Sky Window
The Planet Window
The Description Window
.. and Halley's Comet

ChemLab - the laboratory inside your Mac. Periodic Table - a chemical reference a double-click away. Templates ... all the chemical illustrations you'll ever need and more. **MacChemistry £125.00**

4paint: £34.95
A line-drawing utility for use in the company of MacPaint. An incredable program, that adds the best of Draw to Paint!

Send for our catalog. - 400 items

instant art
Business Forms - Two disks with all the forms most businesses need. ... £45.50

British Ready -to-use Graphics
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Food & Drink - Display Fonts
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European Atlas £29.50 each
Disks chock-a-block full of MacPaint images.

Laser Business Forms - Business Forms made perfect! £45.50

NEW! **On-Stage Pascal**
At last! You can develop Lisa Pascal-like applications without a Lisa. All you need is a 512K Mac. On-Stage is NOT Lisa Pascal, but you probably won't be able to tell the difference.
Now available.
Personal : £99.00
Developer : £325.00

HumanForms: £69.95
Not just more clip-art! With this disk, you'll find that anyone can draw convincing people in MacPaint.

CLR MS-Basic (v.2) Extensions
Clear Lake Research
£44.95 each, or £29.95 for both.
ToolLib adds over 100 commands to directly access Quickdraw. MathStatLib has over 20 maths and statistical functions.

Mac Zap: £49.95
Need a backup? Want to recover a lost file? Move protected programs to hard disk? ....you need Mac Zap!

Pardon me, boys, is this the Macinooga Choo-Choo?

£34.95

The super true-to-life electronic train set. A brilliant collection of railway tracks, terrain, and rolling stock that you can assemble in an infinity of layouts. All extras included!

Dealers! Distributors! Send for our Information Package.
We want you all, & we're particularly keen to hear from the Continent.

We really do want to get you the software you want. You may not see the particular item you seek here. Give us a call or write for our Catalogue. You'll be surprised at how extensive our range is, how reasonably priced the programs are, and how quickly we can get hold of unusual ones. There's no-one else in Europe who's got as good and as comprehensive a US procurement and delivery service for Macintosh as us. If you're serious about the Mac - remember, so are MacSerious

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ALL NEW!

BALANCE OF POWER: £44.95

Power! Now you can be President of the USA or Chairman of the Supreme Soviet. The ultimate simulation of the nuclear age

DEJA VU: £44.95
A Nightmare Comes True.
A graphics/text adventure where everything seem vaguely familiar, yet you remember nothing. You'll have to solve this Chandleresque murder yourself!

RACTER: £39.95
At last, it's here - Artificial Insanity! Racter is a wizard at wonderful weird computer conversation - on almost any topic. Talk to Racter soon!

Coming Soon at a Mac Near You:
Steven King's THE MIST
A special brand of terror only the fearless can survive!
James Bond 007
A VIEW TO A KILL
Become 007 in your finest adventure yet!

Another message from our Boss:
Thanks for all the nice orders placed following our last advertisment. But you've got to do better still if you want readable advertisments!

NEW! **Prolog II** £345.00
A Macintosh implementation of the Prolog artificial intelligence language, used for developing expert systems and natural lanuage processing. Can be linked with each other (and the Toolbox) via Lisa Pascal (or On-Stage Pascal)

The MacSerious Promise
We are dedicated to helping the serious ... or not so serious ...Mac user get the software he or she needs ... and which no-one else supplies this side of the Atlantic. If you can't find it elsewhere, try MacSerious. If we don't have it in stock, we'll get it for you if it exists!

NEW! **SUPER CRUNCH** SPREADSHEET
- Macros!
- Icon Palette!
- 3-D Models!
- & it talks!
£245.00
The Power Spreadsheet for the Mac.

The greatest computer chess game on any micro-computer. The 3-D view of the board is so real, you'll think you're playing against a human opponent - who happens to have won the World Micro-computer chess championship.

PSION
£49.95

What is MacNest?
MacNest is a NIFTY ELECTRONIC STORAGE TRAY - A double-screen scrapbook with instant indexing.
It's got two editable windows - one for graphics from MacPaint or MacDraw, and another for text from MacWrite. To locate an illustration, just type it's given name and up it pops. Text can be stored and retrieved just as easily. With the Switcher, watch it fly! Can you afford to be without it? £44.95

Micro Planner £375.00
Now there is a professional project planning and scheduling program for the Mac. And this is it.

A word to all you Mac users out there
Our products should be stocked by all good Apple dealers. If your local dealer doesn't know about us tell him! If you prefer, write or phone us & we'll supply. We take plastic (see order form) and note the prices here exclude VAT

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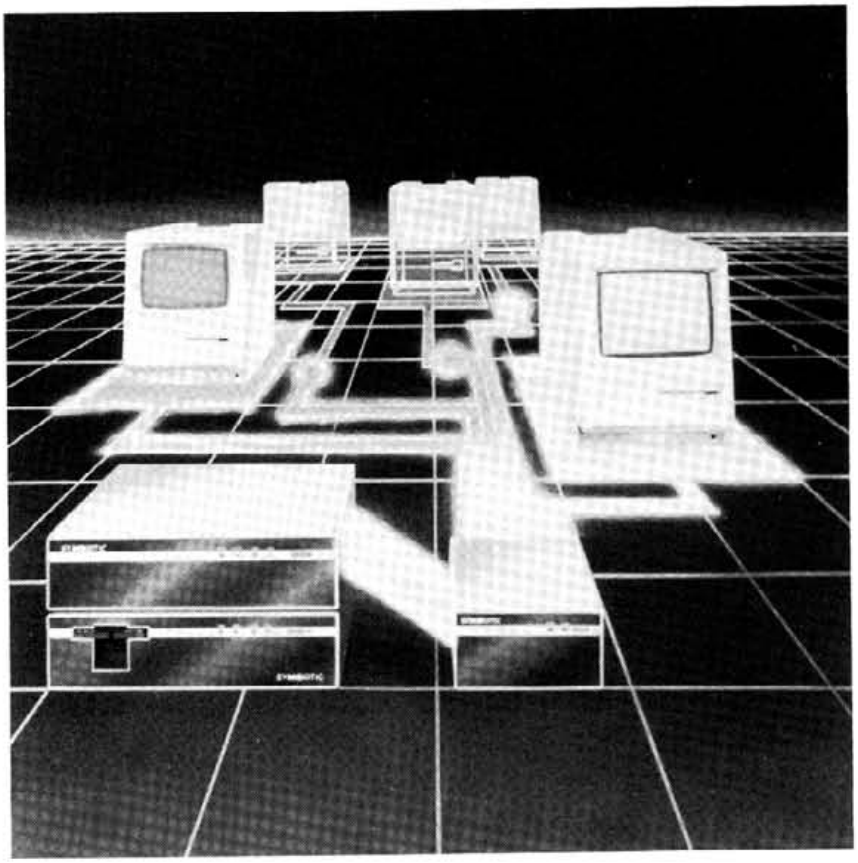

The Servant

At the MacWorld MAUG party Andy Hertzfeld gave a demonstration of his latest creation. Its called the Servant and is a combined Finder and Switcher.

The Finder is Very Very fast. You can open say Write and if you drag the window to the side there underneath is the Desktop.

Background printing and comms is understood to be part of this program.

It makes the Mac operation like the Lisa and AH was very proud of it.

Can't expect to see it finaled before the summer.

Compuserve News

There is a new utility to allow more than 20 fonts, lets you scroll the menu.

THANK YOU

Many thanks to all those MacUsers that made this section of the magazine possible - yes you have guessed it - the only contributors were Norah Arnold, Ivan Znezovich and myself.

I not only have to edit and write for the general section of this magazine, but put 85% of the writing in the Mac section, which should be the fastest growing part in the mag !

In future I will not listen to your moans about why HARDCORE has nothing about Macs in it : from now on if you do not contribute then you will not read anything about Mac in this journal. After all the information is about - how about sending it in.

YOURS PE>>>>>>>D OFF
Jim Panks

Laserwriter Upgrade.

£700 PLUS - NEW FONTS - MORE SPEED - 128K Compatible

Apple announced that as from 1st March 1986, they will be offering a Laserwriter Plus option. This is not a new Laserwriter but an option for the ordinary Laserwriter. It is a simple ROM swap and the new features are:
7 new fonts :

ITC Avant Garde Gothic Book.
ITC Bookman
ITC Zapf Bookman
ITC Zapf Chancert
New Century Schoolbook
Palatino
Helvetica Narrow

Laserwriter now supports ALL Macs including 128k.

Downloadable printer fonts (to be offered by Adobe @ £175 per set).

Option to print break page between print jobs.

The present bug when using A4 is fixed.

A decrease in the time taken to print.

No more printed manual feed instruction sheet.

The price is around £700 which is expensive until you look at the price of a Laserwriter and then find that it compares with other upgrade prices offered by Apple.'

An Experience with ExperLogo™. By Norah Arnold.

The advertisements for ExperLogo™ on the Mac make it sound just the kind of thing which anyone with a passion for Logo would be pleased to have. Both 3-D and spherical graphics are mentioned and the speed of execution is always praised. Take, for instance, the advertisement which appeared on page 122 of MacWorld, January, 1985. This depicts ExperLogo as the 'patient tutor' for those being introduced to the computer for the first time, easier to use than any previous Logo, while retaining Logo's original virtue of being fun to learn.

Needless to say, I was delighted when my husband purchased Experlogo at Apple'85. However, our initial enthusiasm did not last very long. After writing our first procedures in ExperLogo, we were more than a little surprised to find that the compilation of the procedures was quite slow, and because our Mac was only 128k at that time, the screen was overwritten during the compilation process. Having got the compilation over, and run the program, one felt distinctly annoyed when the compilation had to be done again before another run.

Naturally we were pleased when told by ExperTelligence that we should return our master disk to be upgraded. Having sent the disk off to the States we heard nothing for three months. After writing to complain, our upgraded disk was returned. We did as instructed and copied the master disk, which would then be needed to validate the 'copy' disk before it would work. However hard we tried, the 'copy' would spit out our genuine master disk, while asking us to insert the self-same disk, only to spit it out yet again. A phone call to ExperTelligence elicited the fact that there was a bug in the new release and would we please return the disk yet again.

If it takes them as long to send it back as it did last time, it may be several months before we know whether the upgrade has done much to improve Experlogo™. I hope it has. As it stood initially, I would go so far as to say that Seymour Papert, the originator of Logo, would hardly recognise ExperLogo™ as the highly interactive language with the immediate response which captivates children, that he advocated in his book 'Mindstorms'.

ExperLogo™ is the trademark of ExperTelligence, 559 San Ysidro Rd, Santa Barbara, CA 93108.

A Bug Fix for MacDraw 1.7 by Norah Arnold

Saving documents in MacDraw 1.7 can be a hazardous affair unless you have carried out this fix. Apparently the problem when saving documents in MacDraw has arisen entirely because the static text items in the Save Dialog Boxes are 'enabled' instead of 'disabled'. This means that if you click them, the Dialog Manager exits the Dialog Box, passing the number of the item which has been clicked to MacDraw for handling, but alas, in this case MacDraw has no routine for handling the selection of what should, after all, be static text, so the result is TROUBLE!

The most troublesome item has been the "Save changes before closing?" text in the Save Dialog. If it is clicked, it returns an invalid code back to MacDraw as described above, and this causes the document to go unsaved.

To put the problem right, you need to use ResEdit to edit the Dialog Item Lists in MacDraw 1.7. The ResEdit you need has the Jack-in-the-Box icon and should have a version number later than 0.5. Earlier versions will let you change Dialog Item Lists to some extent but do not allow changing static or editable text from enabled to disabled and vice-versa. First open ResEdit, then open MacDraw from the list of files shown as present on the currently mounted disks. Next open the resource type DITL, which stands for Dialog Item List. The list of DITL's should appear something like this:-

We are a hi-tech W1 company completely committed to the Macintosh and are expanding our Macintosh and LaserWriter network and services.

...if you think the Mac is the greatest and would like to use one every day

...if you are willing to learn to use PageMaker and other quality software

...if you can type and/or have had some experience of graphic design

...if you would like working under pressure as a member of a specialist team

You may be the person we need!

Ring Ann on 01-935 7140 to find out.

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DITL's from MacDraw
DITL ID = -3999
DITL ID = 307
DITL ID = 306
DITL ID = 305
DITL ID = 304
DITL ID = 303
DITL ID = 302
DITL ID = 301
DITL ID = 502
DITL ID = 501

You should now double-click on the DITL with an ID = 501. This should display the Dialog Item List for the Save routine in MacDraw. The window should have the title:- Dialog Item List = 501 from MacDraw. The largest box in the window should contain the text 'Save changes before closing'. Double-click on this item and an edit box should appear having the title:- Edit Item #4. In the list on the lefthand side of the box, the 'Static text' button is the only one selected. At the top right you will see that the 'Enabled' option has been selected. To correct the problem, simply click the 'Disabled' option and then click the 'OK' button at the bottom so that your changes will be saved.

At the very least, you will also need to do this for the 'Revert to last version saved?' text in DITL 502. However it is advisable to make the same changes to most of the DITL's which contain static text items as most of them have been left enabled and should be disabled. Just make sure that you do not disable any text items where the 'Editable' option is selected.

Incidentally, the version of ResEdit which I used seems very reluctant to save a newly edited file. I found that if I copied something to the clipboard, then I was almost certain to be asked if I wished to save the file, so that problem was solved.

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Next Issue

Articles planned for the April Issue include:

OMNIS - Increase your storage space.
Visicalc Tips.
Appleworks - Letter Quality Printing.
Binary Data to Variables.
Title Maker - A listing and instructions.
Microsoft Multiplan Tips.
Using Pagemaker - an experience !
Hands on the MacPLUS - Benchmarks !
E.W's COPYA
Data Highway // - A review.
News - Views - Tips on all Apple Subjects.
Report from Apple Show 86

Back Page Ditherings.

Well that is it for another couple of weeks, thanks to those members who have sent articles, I can start on the next issue in a week or two.

This issue has been a challenge, using a program to put 99% of this magazine together. You will be able to read about it in the next issue.

Whilst watching the news the other evening I saw Mr E. Shah getting his electronic paper on the road. Well eat your heart out Eddie, I have just done it !

Right,as always I still need articles, tips and your letters. Before anyone writes in there are about fourteen mistakes in this copy - I found them after the Paste - Up was complete and offer a prize of one free copy of this fine journal for the person that can find more than forty spelling mistakes !!

The little drawing below will change - it will show the flow of information from my office - as you can see at present more goes out than comes in.

LETS SEE IF WE CAN CHANGE THAT SITUATION

The Mac section has turned out to be a bit weak - yet again. This is not my fault - enough people out there use Macs - so lets have some response.

See you next time. (about April 10th on your door step).

640K IIc

(plus CP/M)

with Z-RAM

Your IIc can be fatter than a Fat Mac and ready for business.

AppleWorks is expanded to a desktop size of 413K (that's about 8 times bigger than a standard IIc). PLUS you can run CP/M programs like dBASE II, Wordstar, Turbo PASCAL, Microsoft BASIC and over 3,000 other CP/M programs. And there's more – but only with **Z-RAM.**

Z-RAM is available with either 256K or 512K of additional memory PLUS a powerful Z-80B microprocessor for running CP/M software. Added to the IIc standard 128K of memory, that gives 384K or 640K of Ram, which gives an AppleWorks desktop size of 229K or 413K.

Z-RAM with AppleWorks will knock your socks off.

As well as expanding the actual desktop size, **Z-RAM** will also simultaneously load the AppleWorks program into memory thus eliminating the need for a second disk drive. This "Ram-disking" also means that AppleWorks will now run about 10 times faster.

And don't worry about the desktop files being larger than floppy disk capacity – if the file is bigger than the remaining space on a disk **Z-RAM** will automatically segment the file and prompt you when to insert subsequent disks.

Z-RAM will expand the AppleWorks DataBase to 5100 records per file, and doubles the Word Processor size to 5100 lines per document.

Z-RAM even gives you a printer buffer (print spooler). So you're back into AppleWorks without waiting for the printer to finish.

Z-RAM is also a high speed solid state disk drive or Ram-Disk and is compatible with Applesoft, PRO-DOS, DOS 3.3, PASCAL and CP/M.

Z-RAM is totally compatible with all IIc software and hardware, and installs easily and securely inside the IIc in less than half an hour. Installation is easy, clear instructions show you how and all you need is a screwdriver. (Absolutely no soldering).

Z-RAM is easily handled by the IIc power supply by using a patent-pending power saving design.

Z-RAM comes complete with manual, Ram-Disk software (CP/M, ProDos and Dos 3.3), Z-80 operating system, CP/M manual and AppleWorks Expansion software.

SOFTWARE FOR APPLEWORKS

JEEVES - Personal Assistant
Desktop Accessory for AppleWorks and IIc. Co-resident with AppleWorks and provides Appointment Calendar, Calculator, Note Pad, Alarm Clock and PhoneDialer – all just one keystroke away.

Graphworks
Provides business graphics for AppleWorks. Graphs directly from AppleWorks Spreadsheet Graph Types: Pie, Bar, Stacked-Bar and Line.

2.5 MEG IIe with RAMWORKS

RAMWORKS is the memory card for the Apple IIe that gives the Appleworks user previously unheard of memory capacity. And more.

RAMWORKS simply plugs into the Apple IIe auxiliary slot (Slot 3) and completely replaces an 80 (or extended 80) column card. In use it functions and behaves EXACTLY like Apple's extended 80 column card, but with much more memory. It is TOTALLY compatible with ALL Apple 80 column software.

RAMWORKS has the same features as **Z-RAM** except that it does not have an in-built Z-80 co-processor (it provides 80-column display) and the print spooler works with Apple's Super Serial Card (or compatible).

RAMWORKS can be expanded to a greater size (2.5 Megabytes). Additionally, there is an RGB option which will provide double-hi-res colour graphics without using a further slot.

Ramworks	Appleworks Desktop
128K	101K
256K	183K
512K	367K
1 MEG	736K
2.5 MEG	1837K

As well as AppleWorks, other programs supported by **RAMWORKS** and **Z-RAM** include: Magicalc, Flashcalc, Supercalc 3A, Diversi-DOS and others. Also, **RAMWORKS** supports Dark Star's Shuttle Multi-Tasking System.

CLOCKS for IIe & IIc

TIMEMASTER H.O. – IIe
SYSTEM CLOCK – IIc

Both these clocks offer full Pro-Dos compatibility and automatic time and date stamping of files – including AppleWorks files. When used in conjunction with RAMWORKS or Z-RAM, these clocks will continuously display the date and time on the Appleworks screen, and give automatic access from AppleWorks database (just use a time or date field).

Timemaster for IIe plugs into any slot, features a 20 year auto-recharging battery and will emulate other clocks.

System Clock for IIc features a pass through serial port – the IIc system clock plugs into either IIc serial port, then the modem or printer plugs into the clock. Batteries are replaceable (1-2 years).

ORDERING INFORMATION

256K Z-RAM	£359.00
512K Z-RAM	£419.00
128K Ramworks	£199.00
256K Ramworks	£219.00
512K Ramworks	£269.00
1 Meg Ramworks	£469.00
2.5 Meg Ramworks	£1,499.00
640K Floppy Disk Drive (IIe)	£269.00
Timemaster II H.O. (IIe/II+)	£129.00
System Clock //c	£79.00
Ram-Disk Software for Ramworks	£29.00
CP/M Ram-Disk Software for Ramworks	£29.00
Visicalc IIe Expander Software	£29.00
RGB Option for Ramworks	£129.00
Z-80+ (CP/M card/software) (IIe/II+)	£139.00
Z-80c (CP/M card/software for //c)	£159.00
Viewmaster 80 (II+) (80 cols on II+)	£139.00
Graphworks	£79.00
Jeeves (//c and Enhanced IIe)	£49.00

Add £1.00 P & P per order. Add VAT at 15%

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The Register

February 1 1986

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SUPERCHARGE!

EXTRA POWER FOR ENHANCED IIe WITH SUPERCALC 3a

Now you have got the enhanced Apple IIe, what about programs that will specifically use its extra power?

SUPERCALC 3a is the product that gives you the power of products like LOTUS 1-2-3 on the Apple.

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— Reads files for other programs like Visicalc and Appleworks

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ONE MEGABYTE APPLE ANNOUNCED

Yes it's true — thanks to the Flipper one megabyte RAM Card from Cirtech. It gives you one megabyte of memory without the need for upgrades or add-on's with the facility to have up to six megabytes in your apple — simply plug-in additional Flippers.

The Flipper is 100% compatible with all ProDOS, DOS 3.3 and Pascal 1.3 software, and it is designed to Apple standard for large memory cards, guaranteeing future compatibility.

The Flipper's speed will amaze you. Just see how you whizz through even the most sophisticated software. ALL THIS AND A FANTASTIC RETAIL PRICE OF £350

CIR 040

Matt Eighty's word boys hard at work.

WORD PROCESSING FOR MATT EIGHTY

Matt Eighty (1880) Ltd. have attempted to compete in the world of high tech. by employing several young boys to help to cope with the company's word processing needs. Fully equipped with notepads and pencils the lads do their best. But you'd hardly be able to tempt an Apple user to employ the system.

For Apple users FORMAT 80 is the obvious choice of word processor.

Outright Leader

Although it's been in the market for a long time it is still the outright leader — a simple but powerful word processor, a built-in mailing list and a complex calculation facility — A SPREADSHEET INSIDE THE WORD PROCESSOR!!

Any printer that works with an Apple will work with Format 80 — forget compatibility problems

ELI 006 £120 + V.A.T.

Hyperdrive and Mac Excel

Hyperdrive is the only hard disk drive designed to fit inside the Mac. With 10Mb (The equivalent of 25 floppies!) There's enough storage to cope with the most demanding business requirements. Hyperdrive fits inside the Mac, connecting directly to the Mac's processor. This allows it to load programs up to 3 times faster than a floppy drive. For example, a normal Mac takes 23 seconds to start MacWrite. Mac with Hyperdrive takes just 3 seconds.

INTRODUCING EXCEL

Now, Microsoft have introduced Excel — a complete spreadsheet with business graphics and database. Excel lets you solve the toughest numeric problems easier and faster than any other program on any micro computer. In fact, with a 512K Mac, Excel gives you more number — working power than even Lotus 1-2-3 and an IBM PC.

Excel is the world's largest spreadsheet ever to run on a personal computer.

It is 16,384 rows deep by 256 columns wide. You'll have 42 graphics options, plus the ability to design your own.

But don't just take our word for it. Send off the coupon for more information and the name of your local dealer, and we think you'll agree — NOW the Mac means business.

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GRAPPLER MAKES IT OVER 3 YEARS IN CHARTS

Orange Micro's Grappler has made it over three years now on P+P's top twenty Apple hardware products!

The original GRAPPLER was revolutionary. It was the first interface card providing easy graphic screen dumping for the Apple II/II + /IIe/III computers. With the introduction of the GRAPPLER +, Apple users were given the freedom of on-board printer selection. BUFFERED GRAPPLER+ adds 16K of printer buffering to the most advanced interface available, and is easily expandable to 32K or 64K.

GRAPPLER +	ORA 001	£109
BUFFERED GRAPPLER	ORA 009	£189

GRAND NATIONAL WIN FOR SPEEDEMON

Speed up your IIe with MCT's SpeeDemon. Typical increase in speed of 3½ times. Use it with Format 80 — Use it with SuperCalc 3a and really make your Apple race.

Starting Prices: SpeeDemon £199.95 + VAT.

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