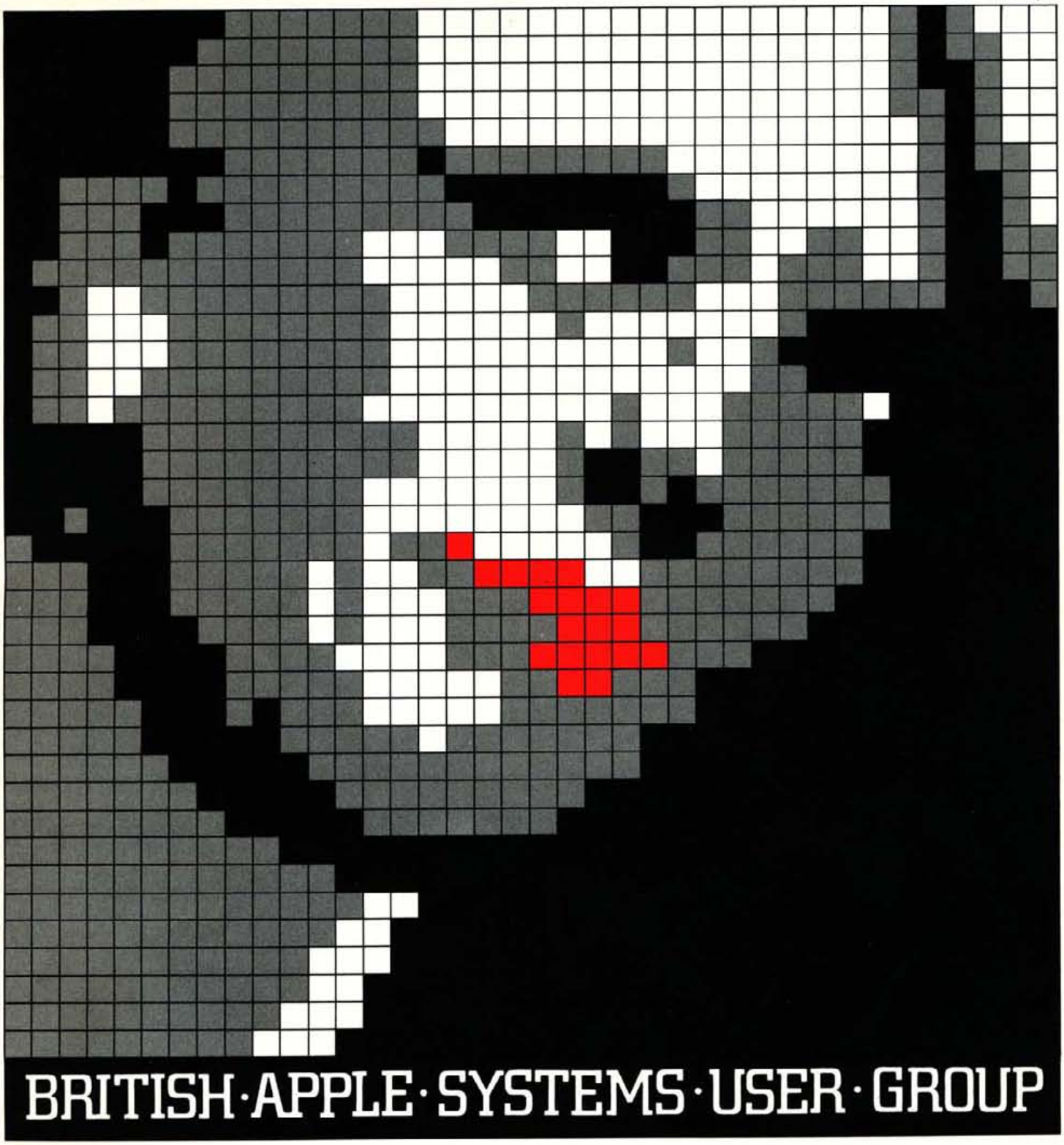
hardcore

June 1986 Volume 6(3)



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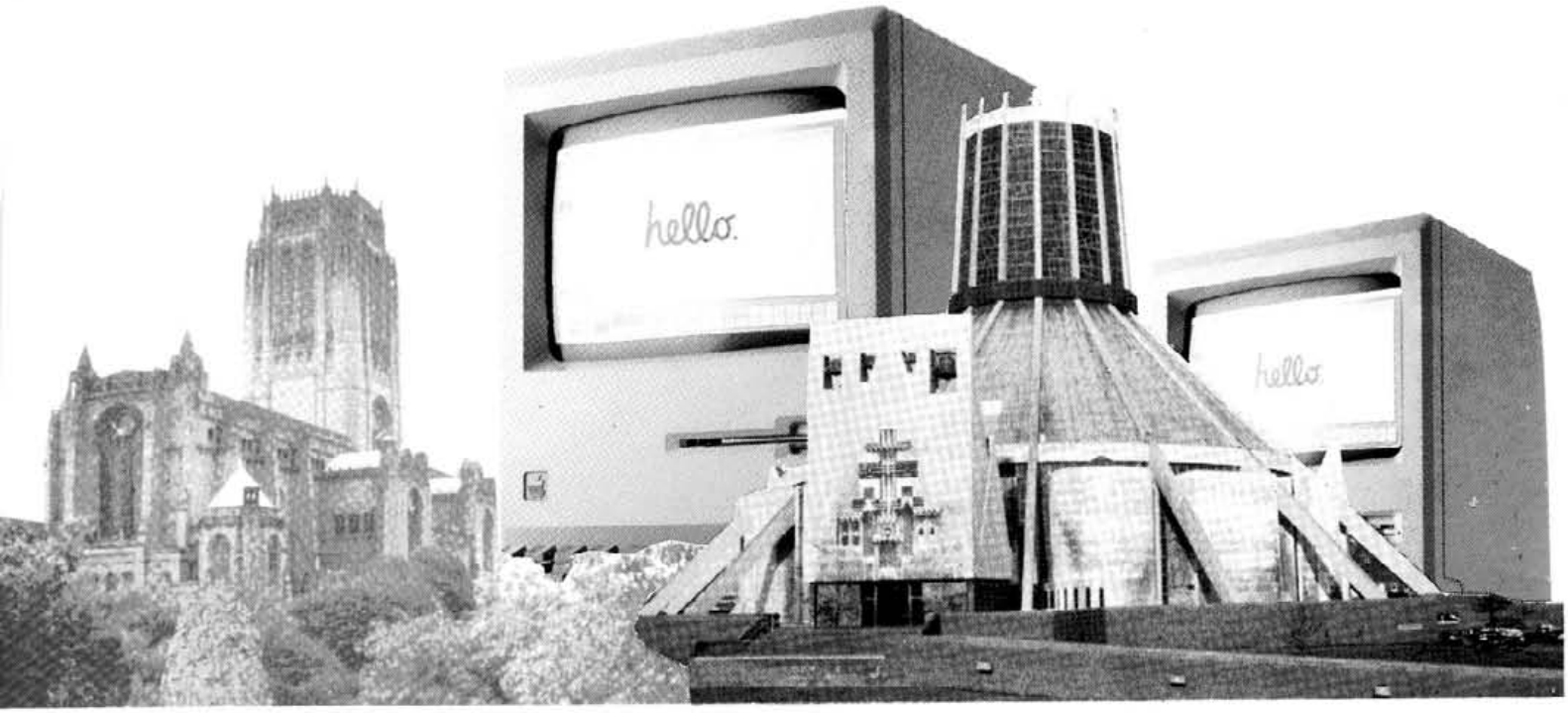

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The artwork was printed on a Laserwriter™ and then Litho printed by Target Litho, Cottenham, Cambridge. Tel (0954) 51189.

Contributions should be sent to The Editor, P.O.Box 177, St Albans, Herts AL2 2EG. These should ideally be on disk media, the disk will be returned with software from the Library.

This journal is published bi-monthly in February, April, June, August, October and December. Copy date the 5th of the month preceeding the publication month.

The front cover and Hardcore™ design is by Stefan Mucha.

Vol 6: 3 **June 1986**

Hardcore

The Journal of the British Apple Systems User Group

P.O.Box 177, St Albans, Herts AL2 2EG

BASUG Ltd is a non-profit making company limited by guarantee.

EDITOR - JIM PANKS

Apple University Consortium Special

Read about the three day invasion by University Consortium Members and Apple Inc. Get the latest news on what Apple are doing.

AppleWorks Section includes :

Pinpoint Review, RamWorks Review and tips for all AW Users

Power your Apple //c from the car

Read how to build a DIY battery power source for your //c

Prize Crossword

Win a trip to the BASUG Disk Box

Screen Snapper Reviewed

Fantastic Printer Driver - How good is it !!

Disk Zap and all that (Part 3)

The third episode of how not to wreck your disks

AGM and Workshop

A report on a super day out in Birmingham

MacChat - The Mac pages.

Edited by Norah Arnold

Haley's Comet in History

Making Multiplan BRITISH !

Which disks should you buy ?

Customising your Page Sizes.

SCSI revealed.

MacPascal Programming.

Network News.

MacPlus Pinouts.

MacSig Library News.

FROM THE EDITORIAL DESK

Changes, changes more changes - yes your journal is still undergoing radical improvements to bring you a more stylish and up to date magazine, containing all the latest news and views in the Apple World.

CONTENTS

Production Team

Editor	Jim Panks
Mac Sub-Editor	Norah Arnold
Editorial Assistant	Graham Attwood
Cover and Logo design	Stefan Mucha.
Advertising	Sheila Hirst
Review Assistant	William Watson.

The latest move forward is the appointment of a sub-editor for the MacChat area - Norah Arnold has undertaken to do the hard work in this area and this will hopefully mean a much better representation of Mac topics. I would ask all Mac people to ensure that Norah is supported with articles and letters.

This issue contains a wealth of information which covers many important Apple areas - AppleWorks is the most used piece of software on the Apple at present and therefore we intend to have this as a regular slot with plenty of hints, tips and news on this major Apple product. Any new products will be reviewed in full for the benefit of all those many members who use AppleWorks.

Two items of good news from the Local group scene. Tom Wright has taken over responsibility for maintaining and improving contacts between BASUG and the local group organisers, and he will be reporting regularly on local events. A new group has started up in Liverpool thanks to the hard work of Irene Flaxman and Computer City of Widnes - see Local Group News this issue for a report on their opening meeting.

The AGM and workshop was held in Birmingham in April and we now have two new committee members to help run the club and add their expertise. Ivan Knesovich, of Bewdley and sealion fame, will be bringing his entrepreneurial skills, and Nick Hunter will lend his business and management talents to making BASUG a more efficient and sucessful concern.

In true Apple tradition I will give some gossip on the fortunes of your club. And that is to say "NO COMMENT". It is clear from the opinions of many of my peers that the club in line with the magazine is improving at a great rate. The news from Hertfordshire is that you must all WATCH THIS SPACE CLOSELY as we will be launching a new machine!!

Did you spot the 'specials' in the last issue? We had over 900 calls for the drive upgrade - unfortunately due to production problems delivery will be delayed until April 1st 1987. We have also heard that the Japanese WP machine, of which 10,0000 were produced have been lost in transit. Something to do with the April Fools I believe. Do you really believe us anymore ??

One last note of importance is that we are now making major changes to The FORCE under the direction of John Lee - this will be completed shortly.

All the Best and I hope you all enjoy the Summer !!!

Jim Panks.

Jim Panks

PINPOINT-AN APPLEWORKS ACCESSORY

By Peter Davis

I was in Houston just before Christmas and having a few hours to spend before turning in my car and heading for Gatwick, I drove round to the local computer store. It was all tinsel,"Jingle Bells" on the MUSAK and before me, "Twelve reasons to put an Apple Computer Under your Tree" with, "Twelve Holiday Software Suggestions for your Apple Computer". In spite of the fact practically nobody will accept VISA travellers cheques in Houston I succumbed and bought PINPOINT for $69.

This software was dated Oct 15th 1985, it was the very first version. As always with new things ..., but more about that later.

To run PINPOINT you need an Apple IIc or enhanced IIe. I enhanced my IIe, (and by the way I am still waiting for the Programmers Guide "at no extra cost").

One side of the disk supplied with Pinpoint, has Accessories and the other side has Startup (PP/INSTALL) and a menu offering a good Tutorial, ProDos Basic with Pinpoint, and the Installation Menu which lets you define Printer, Modem, and location of PINPOINT Accessories.

If you have AppleWorks, you install Pinpoint as part of the Startup side of the disk. The APLWORKS.SYSTEM file expands from 14 to 41 blocks (20K). Then, if you have copied the appropriate /ACCCESSORY files to your Data Disk you simply hit the [Solid Apple] and [P] keys to instantly bring up a window with the following options:-

Appointments - A calendar to 1999 and appointments diary you can call up any time to enter, check, or print out a schedule.

Calculator - A calculator pops up on screen which can be accessed through the numerical and arithmetic function keys.

Communications - Provides suitable software to use a modem compatible with the push button tones, or a dial type pulsing telephone compatible with the Bell system.

Dialer - Dials phone numbers from text through Bell system.

Graph/Merge - Lets you merge graphics programs or drawings created by Dazzle Draw, MousePaint and other graphics packages into the AppleWorks word processing screen and print it out as one document. You have the option of positioning and cropping the drawing to full or half size, as a normal or inverse image.

Notepad - You can make a note and file it without interupting some other more complex operation in AppleWorks. The note can be filed as a note or as named AWP Word Processing file through a ProDos pathway. It has special identity so you can go on adding to a note.

QuickLabel - For labelling envelopes, you just place a cursor on the top right hand corner of the address you want from the screen, RETURN, and the address is highlighted, RETURN, up comes a simulated envelope on your screen with the address which can be moved arround with arrow keys, then printed on the real envelope just where you want it.

Typewriter - Lets you print out a line at a time directly to the printer, in fairly wide range of fonts and spacings. Ideal for filling in forms.

None of these features upset what you are doing with AppleWorks. You use them, quit and you are back to what you were doing before.

You also have a sort of super version of ProDos Basic, which on my IIe shows the alternate character versions (Pictorial/Mouse Text) under the cursor while in the edit mode , from the "enhanced" character ROM. My IIc does not show this feature. In addition you still retain all the same 'pop up' facilities to use while you are in the middle of Basic programming. It is suggested that a technical note "TN-PP007 Basic Programming Considerations for Pinpoint" should be ordered, but I have not seen this as yet.

There is also a Pinpoint Toolkit ($49.95) with a library development aids and source codes for up to 25 new ProDos calls.

The communications features of Pinpoint are considerable, but I have not been able to try them yet! So I cannot go into much detail.

The software is designed to work "Hayes compatible". The modem can be set up to dial and answer calls. The set up procedure allows you to select for a "touch tone", or a "dial type" pulsing telephone compatible with the Bell system.

'None of these features upset what you are doing with AppleWorks. You use them, quit and you are back to what you were doing before.'

Terminal set up options are as follows:-

- Baud rate 300 or 1200
- Full or half duplex
- 7 or 8 data bits
- 1 or 2 seperating characters
- Odd, even or no parity
- Line feed after CR

So it is not going to cover mixed frequency send/receive material, a number of common CCITT standards, and some is 'verboten' by BT.

These are the Commmunications options.

Answer Phone - Answers phone, scrolls data on screen

Dial - Lets you select your number to dial from the Phone Directory, shows you its dialing, then automatically sends your 'Log On' ID or password once the carrier is picked up.

Hang Up - Lets you disconnect at will.

Phone Directory - Lets you enter up to 10 numbers (say Dow Jones), then your 'Log On' ID or password.

Play file - Lets you send any AppleWorks file

Record to file - Lets you elect to record the incoming information in memory for later examination

Start Recording - Lets you save the incoming text to disk any time you want during transmission. 'Stop recording' lets you stop and continue to receive

Terminal Setup - see above

Quit

The other communications option is:-

Dialer - Dials from highlighted text on the screen. Note that within this set up are various other options, such as special prefixes, pause times, and local code suppression.

How useful is it?

Under all circumstances I have found PINPOINT an excellent adjunct to AppleWorks. On a disk][it is not particularly quick and the times to call up some functions become a bit tedious. 'Calculator', one the shortest, takes about 10 secs. to invoke, and 6 secs. to Quit; 'Appointments' takes about 22 secs. and 10 secs. respectively, while Graph/Merge, the longest, takes about 55 secs. and 15 secs.

It can be quite easily seen, by looking at the disk, what is happening during these times. When you are using disk II, as soon as you bring up the PINPOINT dialog box, AppleWorks is disabled. When the function is selected, part of AppleWorks is downloaded to your working disk as a temporary working file /W.TMP, then the desired /ACCESSORY file is loaded. The length of /W.TMP varies with the function summoned. The table below shows the sort of file usage required for each function. PINPOINT will not let you begin, unless there is enough disk space or memory. They recommend splitting the functions between several 5 1/4" disks.

Though PINPOINT works very well with two disk drives (even one), it seems quite clear that this type of software will go very well with the 800K Uni-Disk or a /RAM drive. If you have a /RAM drive everything happens very much faster and this bodes well for the future of the Apple II.

There is a clear statement in the Manual that PINPOINT can take advantage of extra memory installed on an Apple II. It details compatibility with the Apple II Extended Memory card, RamWorks, Z-Ram, and Checkmate. In effect Pinpoint automatically searches your machine for the presence of an extended memory card when it starts up. If a memory card exists, the desktop accessories are automatically copied to the corresponding RAM drive so that accessories will be available quickly when you wish to use them.

In the software there is provision for:-

- ProFile
- Unidisk
- Even the new Apple II 16 bit CPU is talked about.

What the manual did NOT say, and the Problems I encountered.

- The manual is good in a descriptive way and many of the functions are very similar to AppleWorks, but the manual says nothing about the programs mode of operation and I ran into some problems that seemed very difficult to solve at the time (probably because I have only owned a computer 6months).
- The program did have a number of problems (death traps), which the otherwise rather good manual, fails to consider. (In the mean time I have been sent the new PINPOINT 1.2A version but I have not looked at it in the same detail. Seven day round trip for the disk from California, not bad!)
- Until I had this program I had only once had a crash with AppleWorks. With Pinpoint installed I succeeded in getting AppleWorks to crash again and again. There is no mention anywhere of the creation a temporary file, which is normally erased when the function "Quits". If a crash occurs, or there is a power failure, the temporary file is not erased. The presence of any temporary working file (/W.TMP BIN A=$0000) left on the data disk will cause a crash, in the event that a new PinPoint function is summoned.

'Under all circumstances I have found PINPOINT an excellent adjunct to AppleWorks.'

Some Accessory files are altered when they are accessed to invoke a PINPOINT function. After that they will not perform again until they have been written back during the "Quit" process. If a crash, or power failure occur, it is necessary to erase /W.TMP, and in some cases, to re-copy "virgin" Accessory files (eg /APPOINTMENTS.PP & /CALENDAR.PP etc.) from the Write protected master disk. The uninitiated can very easily cause a crash by not correctly using the PINPOINT "Quit" procedure and from then on it is quite certain that the "next summoning" of that Accessory will result in disaster. He then finds himself in a "Catch 22 Situation", because he does not know that his disk is flawed by the presence of /W.TMP and possibly an "altered" Accessory.

The user guide should make it quite clear why a disk like this holds the seeds of system destruction.

An attempt to summon an Accessory when AppleWorks is using a different PRODOS pathway, or disk drive, to the

Pinpoint disk file usage

Report: Files and functions

Function	Sub function	First file	Size	Second file	Size	Size /W.TMP	Reqd space
Appointments		/APPOINTMENTS.PP	6K-40K*	/CALENDAR.PP	11K	14K	31K*
Calculator		/CALCULATOR	4K	None	0	4K	8K
Communications	Answer	/COMM.PP	14K	/LOGONMAC.PP	2K	25K	39K
Communications	Hang Up	/COMM.PP	14K	/LOGONMAC.PP	2K	25K	39K
Communications	Directory	/COMM.PP	14K	/LOGONMAC.PP	2K	25K	39K
Communications	Record	/COMM.PP	14K	/LOGONMAC.PP	2K	25K	39K
Communications	Start	/COMM.PP	14K	/LOGONMAC.PP	2K	25K	39K
Communications	Set Up	/COMM.PP	14K	/LOGONMAC.PP	2K	25K	39K
Communications	Play	/COMM.PP	14K	/LOGONMAC.PP	2K	25K	39K
Dialer	Dial	None	0	None	0	0	0
GraphMerge AWP files		/GRAPHMERGE.PP	37K	None	0	37K	74K
Notepad		/NOTEPAD.PP	9K	None	0	13K	22k
QuickLabel		/QUICKLABEL.PP	4K	None	0	5K	9K
Typewriter		/TYPEWRITER	4K	None	0	5K	9K

Installed one, can result in a crash. The User Guide says something like this (p94) but says elsewhere (p87) that Pinpoint "keeps looking".

The frequent down loading and erasure of /W.TMP to the disk gets the Prodos volume fragmented quicker than needs be and leaves behind a clutter of debris from erased files.

At one stage I concluded, that there can be "something" left on disk, (without an apparent directory reference, not yet overwritten by new text), which is sufficient to cause the crashes! By experimentation I assume that /W.TMP files must be accessed by a means of disk location not involving the whole PRODOS directory. Deleting /W.TMP files is sometimes therefore not enough, they must be erased by reformatting the sector. For some strange reason, this type of problem has never occured since the source was identified.

Conclusion.

I have found PINPOINT an excellent adjunct to AppleWorks, and I like the feature of having it there with 'pop up' facilities to use in the middle of Basic programming. I also feel there is potential in the TOOLKIT for other similar aids.

The powerfull communications feature needs some attention to cater for Europe.

I have gone into some detail on 'what can go wrong and why' to spare the next BASUG member a few pains. The fact is, it is reliable, furthermore I have reason to think Pinpoint may have eliminated some of the hazards in the new version.

If this type of software catches on there will be a large number of RAM drives and Unidisks sold, because this is where the full benefit shows.

Acknowledgement.

My local Apple dealer Advanced Micro Products, allowed me to use their equipment when I was not sure my problems were hardware, software, or idiotware. AMP have let me try out this program with the Cirtech RAM card. I also sneaked a go on someone's Uni-Disk during the BASUG show. I would like to thank them for their help.

Postscript

Since completing this article I have had a very charming letter from Ben Melnic, of Pinpoint Technical Support which states that:-

- "You correctly pointed out several problems in the initial version of Pinpoint. The Calendar data file, /APPOINTMENTS.PP, could not expand beyond a certain point without deleting old data and causing other strange problems. The /W.TMP file caused many problems if left on disk."
- "The updated version 1.2a, which you should have received by now, solved most of these problems".

I have not been able to simulate the problems on the new version 1.2a.

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Local Group News

by Tom Wright

Following a recent Mexican shuffle (don't ever play cards with Norah Arnold !), I found myself nominated as the B.A.S.U.G. contact point for local clubs. After the shock had worn off and I had thought about the task a little I realised that I am faced with a very interesting task, this realisation has been reinforced during my first round of contacts with various of our friends throughout the British Isles.

From here on folks if you are a member of a local club, or an individual looking for companionship or conversation about Apple related matters I am your B.A.S.U.G contact point. I hope that between us we will be able to help friends all over the country, but to help ourselves we will all have to contribute.

Any club or individual looking for contact points or wishing to make them known can do so by contacting me either via the P.O. Box number, or on 0527 71913. Apart from helping with contact between ourselves we can probably help each other with advice (or a source for it) on other matters such as starting a club, topics for club evenings, potential speakers, demonstrators etc.

Equally important for many people will be the opportunity to air their views of, Hardcore, Apple, or many other topics via this column, you send it and I'll get it printed (provided that I don't risk a term in clink by doing so !).

My first efforts included contacting fifteen different people who have previously been quoted as contacts for various clubs, I have one or two notes of others to contact but if you know of ANY please let me know. Lack of space prevents everybody being mentioned, but if you're not here this time please be patient, everybody will get a mention.

The first news to pass on is of a NEW GROUP. By the time you read this column the inaugural meeting of a new group in the Liverpool area will have taken place (on 12-5-86) at 78, Victoria Road, Widness, Cheshire, WA8 7AR. We have members of Computer City to thank for the initiative in identifying the need for a group in this area, approximately 70 invitations were sent out to local B.A.S.U.G members and Computer City customers and I am told that the response and level of interest are very encouraging.

Our Treasurer, Irene Flaxman is heavily involved in the group's launch and is currently the contact point for anyone in the area who is interested in finding out about the group, don't be discouraged if she isn't there when you ring the number in the contacts list as most anybody in Computer City will be able to give you some details.

The inaugural meeting is to be attended by Blyth Computers and Symbiotic who will both be giving talks. Apple U.K., will also be there as will Jim Panks and Graham Attwood (B.A.S.U.G Chairman and Software Librarian respectively). Should be a good evening, good luck to the new group.

Donald Davidson of the Glasgow group has supplied me with a few details of that group. Glasgow is a relatively new group which held its first meeting, on a preliminary basis on 4-12-85 in the Department of Geography, University of Strathclyde, to discuss the formation of a local Glasgow group. Six people attended and they decided to hold another meeting to test the viability of the group.

The fledgeling group publicised themselves around local colleges, hospitals and universities to the effect that eighteen Apple enthusiasts turned up at the 13-3-86 meeting during which Strathand Ltd (the local Apple dealer), gave a presentation on the Apple range. Members decided that there is sufficient interest in the area for a local group and have so far decided to hold meetings three or four times per year. The next meeting is on 11th JUNE with databases as the topic for demonstration. The meeting will be held at 7.30pm in the UNIVERSITY OF STRATHCLYDE, LIVINGSTONE TOWER (LABORATORY 5.01). A list of Apple users has been compiled by the group to foster local contact. Further information is available from Donald on 041-956-1829. Thanks for the information Donald.

Graham Attwood informs me that the CROYDON APPLE USER GROUP now has a new venue which is THE WADDON, STAFFORD ROAD, WADDON, NR. CROYDON. CAUG meet on the THIRD THURSDAY of each month, meetings commence at 7.30pm with main business beginning at 8.0pm and they run until 10.30pm. Graham is Chairman of the group which has a committee of six including Philip Ramage as Secretary and Cyril Mascord as Treasurer.

Organisation of the meetings alternates between informal workshop sessions and organised meetings with, hopefully, an outside speaker. CAUG have just started a system for the informal meetings where two or three of the members give a five minute chat or demo., on something to do with computers. The May meeting will be an informal one.

June's meeting will find Graham demonstrating OMNIS 3 and there may also be a demonstration of DBASE II as an alternative approach to databases. Meetings are not normally held in August but the membership will be polled to determine whether there is enough demand for an August meeting. Thanks for the information Graham, look forward to seeing CAUG's newsletter.

Continued on page 9

HOTLINE NEWS

by Dave Ward

The HOTLINE will be available between 7pm and 9pm most week-nights.

As is our usual custom we are listing some of the questions that were raised with the Hotline since the last issue.

We are still getting enquiries regarding the interfacing of the Epson 8132 printer card with ProDos. As mentioned last time Dark Star Systems will sell you a Rom chip not only to correct this but also to add many other enhancements - see Dark Star's recent advertisements.

Since the April Hardcore the Hotline has received quite a few calls requesting the telephone number and address for sending their orders. This information is at the front of each Hardcore.

We have had some enquiries regarding the availability of Applesoft compilers under ProDos. The only one that we are aware of is MICOL Basic which is published by Micol Systems of Canada.

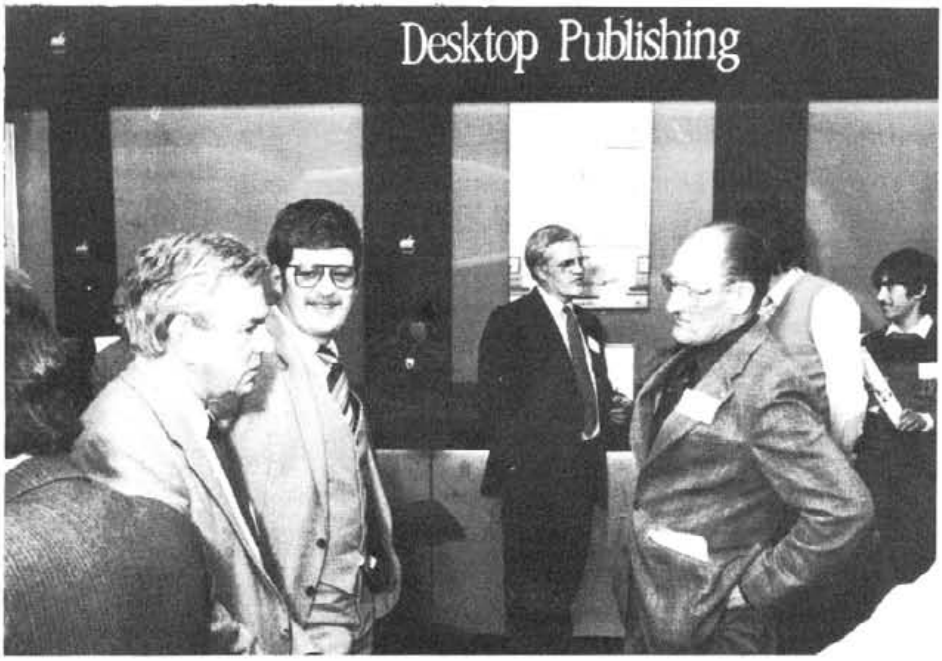
How does the Flipper 1 Megabyte memory card compare with Ramworks as a desktop expansion for Appleworks - an article will appear sometime in the future regarding this question.

Pinpoint utilities require at least an Apple //c or an enhanced 128k Apple //e (ie 65C02 processor and enhanced ROM).

One question which went unanswered was how to repair a Time Machine Clock card. Does anybody have a circuit diagram for this card or know how to repair it ?

By the way - is there an APPLE club in Newcastle-upon-Tyne or does anyone wish to form one? If so please contact Tom Wright on [illegible].

The Liverpool Local Group



For those Apple Users living in the Liverpool area - you now have a new local group.

Yes on Monday 12th May 1986 fifty six interested Apple Users took up the opportunity of using the Computer City Showrooms in Widnes as a regular meeting place.

Dealer Owen Hargreaves stated
" Ensuring that users are given every opportunity to meet and share their experiences is my ambition."

I quizzed Owen about his philosphy later and he said " I bought an Apple to use in my printing business, like many first time users I felt lost. I joined BASUG, learnt a lot and then decided to open an Apple Dealership. I have suitable premises for meetings and will be making them available for a regular local group. "

The committee of BASUG turned up in force with Jim Panks, Irene Flaxman and Graham Attwood there to ensure support for this new venture.

The turn out was great with ages ranging from 7 to 60, four users turned up from Leeds and were suitably impressed with the welcome that they received.

Symbiotics demonstrated the new range of Macintosh Hard Disks and spent time explaining to individuals the advantages of tape back up units and networking.

Irene Flaxman, an accountant by trade gave a useful introduction to the new Apple Accounting package. Irene will be organising the local group in the early stages and is anticipating holding meetings on the 2nd Monday of each month.

The meetings will start at 6 p.m. with an informal get together, at 7 p.m. a more formal talk or demonstration will be arranged.

Bill Pearce the author of a neat package called 'Timetabler' demonstrated to good effect the uses of a school time tabler. This new package which runs on the Mac shows just how good British Software can be.

The demonstration of PageMaker was given by Chairman/Editor Jim Panks. Those present were shown the technique used in putting together this issue of Hardcore. It was a good demonstration of Apple Technology being used in a working environment.

Whilst all this was going on I noticed some users sneaking away - being a fair detective I followed and found a group busy swapping notes on Omnis 3. I think we have a group within a group starting here. I hope they will all join in the new Omnis SIG shortly !.

The setting for this meeting was ideal with a large showroom full of the latest Apples and a seperate training room. This allowed ample room for structured demos and for the more noisy general chat.

The following comments were received from those attending:

Phil Harris (Symbiotics) -
" It was one of the best demo's I have ever given "

Jim Panks (BASUG) -
" I hope that more dealers will follow the lead given by Owen - the USER is not the only one to profit out of such meetings. USERS need DEALERS - DEALERS need USERS - its a joint effort."

Owen Hargreaves (Computer City) -
" It was an outstanding success and will be the first of many . Its nice to see everyone solving problems together.

The committee would like to express its appreciation of the facilities offered by Computer City which included the printing of the copy for this magazine at no charge.

We also wish the new Liverpool Group the success it deserves.

Local Group News

continued from page 7

MidApple's Programme Secretavy, Harry Gardiner has Dave Ward lined up for the May 9th meeting to give a demonstration of Flipper and Appleworks. On June 13th Bob Sather of Dark Star Systems will be coming along to demonstrate the Snapshot Shuttle and Printerrupt, as well as Roms for Epson cards. July 11th's topic has not been firmed up yet but may include Excel on the Mac, or the Unidisk 3.5. Last years Printer Fair which was so well received will probably be repeated at the August 8th meeting. Works hard does our Harry.

Anybody in the area who has an interest in Apples will find a welcome at any of the MidApple meetings, or, if they prefer can obtain information about the group from myself on 0527-71913. This group has been going for several years and is fortunate in being able to hold its meetings in an I.T.E.C centre which is well equipped with Apples. Apart from the annual games night and Printer Fair, each meeting includes a special topic which is covered by either a club member or a visiting speaker.

The Herts & Beds group have an interesting forward programme arranged which includes Starting Machine Code on the 3rd of June, different operating systems and the advantages of ProDos on July 1st, and on August 5th they will be having a games evening , please bring your best program and a machine if possible . New faces are always welcome.

Tom Iddon who is listed as one of the contacts for the Furness area will always be happy to hear from anyone interested in Apples. The Furness group has not been very active during the last few months but the contacts are there so why not get together folks ?

Mike Hollyfield of the Hants & Berks group informs me that their meetings are not rigidly convened, and that machine interests in the group range from various versions of the II through the Macintosh. Although they currently meet at an I.T.E.C facility it is possible that they may have to seek another venue in the future.

Mike has already received a couple of enquiries about the group since his name was given as a contact point and he will be happy to hear from anyone else interested in going along to a meeting, or talking Apples. Thanks for the information Mike.

The North West Apple Computer Club's Chairman, Jim Rosco has promised to let me have some notes about the group which meets on the first Friday in every month. They have run a couple of courses in the past (6502 machine code and Pascal).

Since the demise of the G.L.C the London Apple II Group has been homeless. Abe Savant who is a typically friendly Apple type will let us know when they have found the new venue, meanwhile if you want to know more give Abe a ring.

Peter Sutton and some of his friends from the Harrogate area have travelled across to the Manchester group on a number of occasions because there is currently no organised group in the Harrogate area. Peter is always ready to chat with other Apple users so why not give him a ring, perhaps there are enough of you in the area to activate a group yourselves.

The Manchester group's Secretary, Max Parrot will be contacting me later since there may be a change of venue for them. The Manchester group has been going since late 1979 or early 1980 and sounds as if there is a wealth of experience and knowledge to shared with anybody who wishes to contact them.

Well that's about it for this issue, hope it's been interesting. Please remember that the only way to get in touch with other users is to let yourself be known and we can help you do that through this column as individuals or clubs. Anybody wishing to send club newsletters is welcome, please address them for my attention via the P.O Box.

Happy chatting. Tom Wright

Why not join in the fun at your local group ?

The latest list of Local Groups can be found on the back page !!!

Fun and Games at the Herts and Beds Local Group !!

A report by Norah Arnold

April Meeting

Well, if you arrange a meeting on a date like April 1st, something is bound to go wrong. This time I left the power cable of the computer at home. As a general Swap Shop it wasn't brilliantly successful either as quite a few people who attended had completely forgotten to sort out their unwanted items and had come along for a good old chinwag. Some items changed hands, however, and I hope the new owners don't regret their purchases.

May Meeting

This meeting was on the subject of 'Speeding Things Up' and covered ways in which one can get greater performance from your machine in terms of both speed and capacity. Colin Holgate gave a demo of Cirtech's card The Flipper, which has a megabyte of RAM to hold programs or to run RAM disks. Colin also demonstrated the Accelerator in the light of the new developments taking place with add-on memory cards.

On the same theme we took a look at RAMStart, an excellent 'shareware' program for the Mac, also Switcher from Apple Computer, Inc. and Turbocharger, which creates a RAM cache.

Many thanks to Colin for his excellent demo, and also to Louis Baker for bringing his machine along.

CLUB NEWS

BABBS AN APOLOGY

To those of you who tried to access BABBS during April, we owe an appology. Tony Game had the misfortune to suffer a hard-disc crash, it took with it the Apple motherboard and some of the cards.

APPLE UK kindly repaired the motherboard for us, and Tony ran the board on reduced service with the original 8 inch drives while the hard disc was being repaired. However the 8 inch drives, being long in the tooth, eventually themselves gave up the ghost, and BABBS was off air for a fortnight.

Finally, after having to send the hard disc back for a second repair, BABBS is now back in full swing.

Under the Tower software that Tony is using, BABBS is now one of the best and fastest Bulletin Boards around. The board is now running under a full specification WS3000 modem, so you can access at any of these formats. V21 300 baud, V23 1200/75 baud, V22 1200/1200 baud and V22 bis 2400/2400 baud.

Tony will be writing an article next issue to update on his February article.

SOFTWARE LIBRARIES

As you all know, we have three software libraries, the public domain library for both 5.25 and 3.25 inch discs and the special release library. We rely on contributions for all of these libraries to keep them fresh and up to date.

Material for the two public domain libraries must be either written by yourself or be known to be of public domain in origin. Any discs submitted will be returned with software of your choice from the library. We build up complete discs from suitable contributed software, so no program is too big or small to be considered.

The special release library works differently. This is a chance for software developers to have programs published that are unsuitable for normal marketing methods. The writer of the program retains copyright and gives BASUG the right to market the disc. Royalties are paid on each disc sold. Any material submitted must come up to a certain standard, and will be checked as well to see if it runs properly and is bug free. We accept any kind of program, and we will undertake to print any associated manuals.

Dig in to your goodies box, pull out that masterpiece now, and send it to the library concerned via the P.O.Box.

WATCH THIS SPACE

You will see elsewhere in Hardcore details of the AGM. Since the new committee was elected, they have not been standing still.

We all met a fortnight later, and spent 48 hours in conclave. Emerging blinking into the sunlight bruised and mentally exhausted, we had made some far reaching decisions.

BASUG looks forward now, after a succesful year stabilising itself, to the future, an increased membership. To new services, facilities, a better Hardcore, the future and the year 2000 .....

Help us take it forward, enrol a new member and .....
WATCH THIS SPACE

Apple ///

The Apple /// is still alive and kicking !!!

My comments in Hardcore, to the effect that the Apple /// is not supported in this country did generate some reactions, demonstrating that there are other interested parties in the UK.

The first reaction came from our friends at Blythe, who do still support the Apple /// micro with a full range of software including Omnis 1 2 and 3, as well as Accounts Ledgers (Sales, Purchases, Nominal).

I have always found the personel at Blythe to be very friendly and helpful, so have no reservation in referring any interested parties to them.

The second reaction came from Eric Sauss, who presented us with a set of Technical Procedures Manuals for use by BASUG. Our thanks go to him, as these will prove very useful when Apple /// owners have a question to ask.

Another useful book has been given to us by Apple UK. It is entitled 'Will Someone Please Tell Me What an Apple /// Can Do?', and is a software guide specifically for the Apple ///.

Lets keep the /// alive by generating some articles on this much misaligned machine.

Irene Flaxman

Thanks Blyth

Our thanks go to Blythe Computers, who have given us a copy of their Omnis 3 database for the Macintosh. This will be used to run the membership database.

Many of you will be familiar with the Omnis system. The membership database has been maintained on the Apple // version for a while, but conversion to the Macintosh will make operation quicker and easier for Keith.

We are really pleased that Blythe feel able to support us in this way, which reflects their general philosophy of assisting USERS.

Thanks Lorne Computers

We would like to register our thanks to Lorne Computers, who have given us a copy of their Macputer Accounts Software. To date, Sheila Hirst has been maintaining a manual ledger system to keep track of our income and expenditure. We have always intended to implement a suitable computer system, and were at the stage when we felt ready to 'go live'. When Lorne heard this, they responded by presenting us with the software we needed to run on Sheila's Apple //e. The system is ideal - very easy to use, and will make Sheila's task (and mine) much simpler.

We'll keep you posted on how we progress as we implement the system in the new financial year.

Letters to the Editor

London E.10

29TH MARCH 1986

Dear Jim,

FRACTALS

May I urge you to include an article on Fractals in Hardcore, since this new field in graphics is exciting much attention in other computer magazines.

I am not qualified to write a Fractal program myself, but, as a librarian, I like to acquire information, and from the DIALOG databases I have gleaned a little.

From the on-line encyclopaedia REFR1 I learn that Fractals are curves in which any portion of the figure is a reduced copy of a larger portion. The simplest fractal is the Koch curve, made by adding to each side of a triangle a triangle whose side is one third of the original one; and so on.

From the database COMP3 I found some references of which these are a few:

WARDROP, SIMON. PLOTTING FRACTALS ON YOUR COMPUTER. IN Micro: the 6502/6809 journal. Mar 1984, n70 p 74-77 ISSN:0271-9002

SORENSEN, PETER. FRACTALS:exploring the rough edges between the dimemsions. IN BYTE Sep 1984 v9 n10 p157-172.ISSN:0360-5280

While the originator of this branch of mathematics wrote the following book:

MANDELBROT, BERNOIT.FRACTALS: FORM, CHANCE AND DIMENSION. 1977.

Your public library will obtain these periodical articles and the book for you. The articles will probably come from the British Library (lending division).

Finally, I would also like to see an article in Hardcore on three-dimensional graphics.

Sincerely, A.J. ROBINSON

[Reply]

Come on you graphics experts, explain to us lesser mortals what these Fractal things are all about. We've all seen them on TV, but don't know what they do!

Ashford, Kent

Dear Ed

Having just read my eagerly awaited April copy of Hardcore, I felt I must write to voice my opinions on a few points.

Firstly regarding Jack Gratus' letter, to refer to the][series as simply hobbies or game players shows Mr Gratus' complete lack of understanding of computers and little respect for the thousands of serious Apple][users throughout the world. Judging from his comments I would say that he is only interested in getting information to save shelling out on programs, but where does he think this information comes from - outer space?

Unless other people who read Hardcore send in their tips and aritcles he wouldn't be able to read about how to save himself money, after all that's what user groups are all about.

I suggest that Mr Gratus does not renew his membership unless he is prepared to pool his knowledge with the rest of us.

Regarding the MacChat section of the magazine, as a hardened Apple][user, I am quite willing to accept the Mac as my machine's big brother, and I always enjoy reading the Mac section of Hardcore. The Mac is the result of high technology moving along at its usual pace since the introduction of the earliest Apples. I hope BASUG never separate the Mac and][series as other magazines have done (call-A.P.P.L.E take note) since we do have a lot in common apart from just the name of the manufacturer.

I was very interested in Nick Hunter's article on spreadhseet templates as I am a current user of both Multiplan and Appleworks. The problem now is how to transfer templates from Multiplan to Appleworks without wearing out my typing finger! Does anybody know a way of doing this?

I find Hardcore a very readable and useful magazine and I am grateful to those who send in their bit as well as the committee for running the whole thing. I hope to be able to contribute something myself at some time in the future.

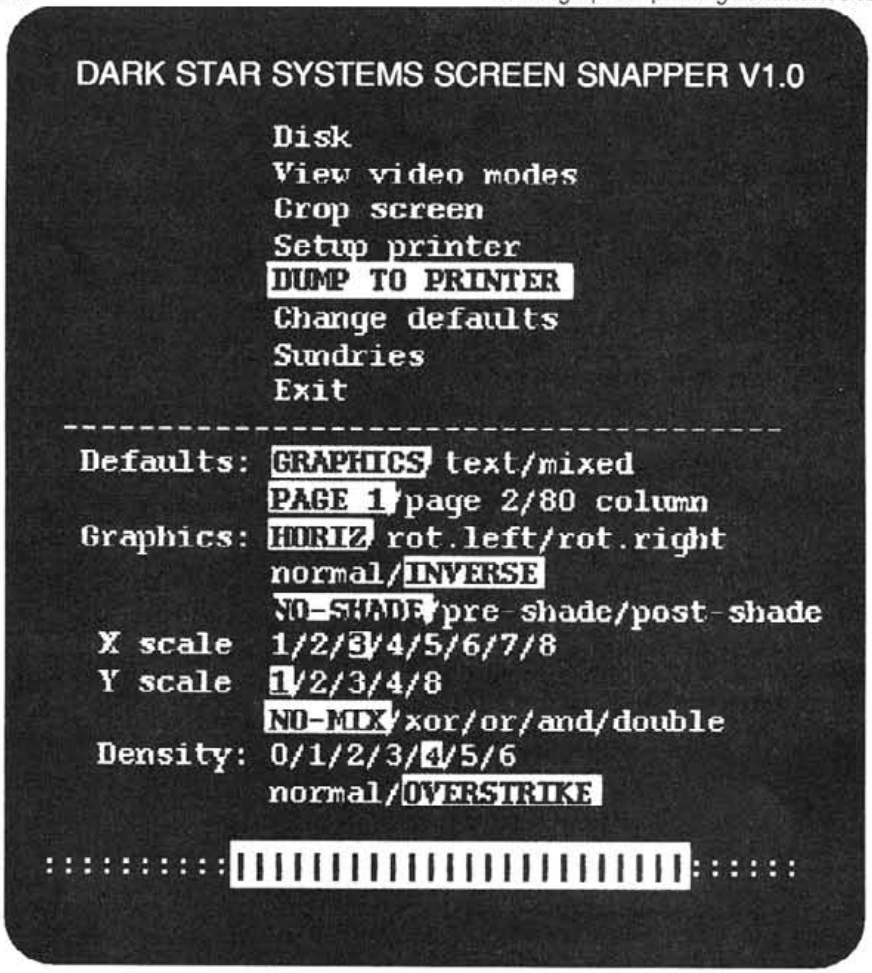
Regards - Roger Larcombe (reply on page 1

DARK STAR SYSTEMS SCREEN SNAPPER

A review by Graham Attwood

Have you got one of the old non-intelligent, non-graphics printer cards such as the Apple Parallel card or Super Serial card? If so you need Screen Snapper, a superb little program that gives you all the graphics printing options (and much more) of the Grappler card provided of course that your printer is capable of graphics output.

The program comes on a double sided disk and has an excellent 44 page manual which explains in detail the various options and commands. When you first boot up you configure the disk to suit the type of 80 column card you have, your printer card, and your printer. Most common][+ 80 column cards are supported and the //e and //c. There is a very wide choice of printers and printer cards to choose from which should cover most combinations, but if you have something wierd, Dark Star even offer to set that up for you.



Screen Snapper itself is loaded onto the RAM card and can then be called by the ampersand (&) command or by Ctrl-B either from within an Applesoft or machine code program or from the keyboard. A menu of options appears which allows you to select any screen, crop the screen to take any portion to be printed, and then choose how it is to be printed out. The options are many but include print density, size in both X and Y directions, rotation, inversion, shading etc., and various ways of combining images from pages 1 and 2.

Setting the higher density print reduces the spacing between dots, making the picture narrower but more intense. This narrowing can be offset by increasing the X scaling factor so that you get a normal shape picture but at much improved quality. There is even an overstrike mode that gets rid of the 'pin-stripe' effect common on Epson type printers.

At the end of the printing you can Exit back to the program you were running, although on the][+ you need to select the correct screen before returning.

All the above are 'immediate mode' printer controls. Screen Snapper can also be 'slaved' to your programs and called while the program is running. These commands are all preceeded by Ctrl-I and can set the printer for the type of font required, margin/page length setting, double strike or enhanced etc.

All the graphics printing commands are also available. The printer is under the direct control of Screen Snapper and the printer card is effectively bypassed which is good news for those with 'funny' cards such as the earlier Epson ones which always seemed to intecept the print commands and create all sorts of havoc.

The back of the disk contains a number of graphics pictures for you to experiment with, and these were all produced by our secretary, Norah Arnold, and very good they are too.

I use it when designing hi-res graphics pages with Fontrix or Graphics Pad because you only need to get out to a part of the program where Ctrl-B (or Ctrl-Z in my setup) is allowed, and there is Snapper ready to dump out the page to the printer so you can see the results immediately.

I think this is a very useful program, even if you already own a Grappler or Cirtech card, because of the extra features and the ease of use. No more thumbing through unreadable printer manuals to find out how to turn on that fancy printing option, just boot up Screen Snapper and print it!

Software review: SCREEN SNAPPER
From : Dark Star Systems
Price : £30
For :][+ //e //c

Letters to the Editor

continued from page 11

[Reply]

You raise many fundemental points about the many aspects of the club. I can see both sides of the argument and respect the points you make. We must realise that some members want nothing more than the magazine and they see that as the main reason for joining.
We do not intend to take the same path as CALL- A.P.P.L.E. and I am glad to hear that we have one supporter.
I am glad you like the mag - watch out for further improvements soon including more articles like Nicks last one.

ED.

Jim,

'HARDCORE' is looking really good.

Widnes, Cheshire.

[Reply]

Another satisfied customer !

Folkestone,
Kent.
6th May 1986

Dear Jim,

Thank you fof placing my advertisment in last month magazine for the sale of my Apple //e which was sold shortly after the advert appeared. Although most of the hardware was sold there are a number of other items I wish to sell and would be grateful if you would place the enclosed advertisment in the next issue of BASUG.

I have also writen a short article describing a simple use of Microsoft's Multiplan in monitoring personal household accounts and enclose it for your and other member's information.

Yours sincerely,

Richard Daniels.

[Reply]

Glad to have been of service - you bits can be found in the Small Ads elsewhere in this issue. Thanks for the article, due to space limits it will be published in the August issue. ED.

HOT TIP

Tired of waiting while your 5.25 inch discs initialise ...

Initialise one disc for each of your favourite disc operating systems, put a tab on the disc. When you next need a blank disc, use your favourite fast-copy program to make as many copies as you need.

THE FORCE

STOP PRESS

The new SYSOP of the FORCE, is John Lee. His phone number is [illegible]. He will handle any queries you have, either over the phone, or through the SYSOP mailbox BSG001 or his private mailbox BSG012. Please note, applications for membership or for Manuals for the FORCE should be made through the normal administration channels .We will be doing a feature on the Force in the next issue. This will include full details of the new format.

FOR SALE

Hardware

Digitek parallel printer card (Epsom) £50.00
Digitek Colour encoder card £35.00
Colour encoder adaptor £18.00

Software

Microsoft Multiplan (Apple //e) £45.00

Documentation

Applesoft BASIC Programmer's Reference Manual Volume 1 & 2 and examples disc £20.00
Apple // DOS Programmer's Manual £15.00
Apple //e Reference Manual £15.00
Apple // BASIC Programming with PRODOS £18.00
Apple][The DOS Manual Offers
Apple][Reference Manual Offers
Videx Videoterm 80 Column Card Manual Offers

Please Contact Richard Daniels on:-

Folkestone [illegible] (Work Number)
Folkestone [illegible] (Home after 6pm & Weekends)

OMNIS SPECIAL INTEREST GROUP NEWS
A new idea from Blyth and BASUG for all Omnis Users

BASUG + BLYTH = OMNIS Special Interest Group

This feature is the first edition of a new concept from Blyth Software. The aim is to generate a type of user group whereby existing and potential Apple Omnis users can relate comments, ideas and queries which Blyth Software technical staff can then reply to.

Judging by the response we have had so far, the venture promises to be an ideal vehicle for providing informative product knowledge to a vast number of people.

Please write to:

Blyth Software Ltd
Mitford House, Benhall
Saxmundham
Suffolk IP17 1JS

Mr Alan Cross
[illegible]

Dear Sirs,

I have been a user of Omnis 3 on the Apple //e for one year and I now need to extend my data storage area. I am presently working with three standard floppy drives and do not at present feel that a hard disk is necessary as the amount of data is not excessive. Have you any suggestions?

Answer A number of users have contacted us with similar queries. We have found that the Apple Unidisk is becoming widely accepted as an alternative to standard drives. The Unidisk runs under Pascal 1.3 and we advise existing users of Omnis to send their original system disk to us in order to have the files updated. The Unidisk provides 1600 blocks for data storage.

Mr George Amies
[illegible]

Dear Sir,

I wish to upgrade my Mac 512K to a Mac Plus in the near future. Will I be able to run my existing Omnis system on this, or do I have to upgrade?

Answer If your version of Omnis 3 is dated on or after 7 February 1986, there will be no necessity for an upgrade. You will need to format an 800K disk, then copy the system files from your Mac Plus and Omnis system disks. If your version of Omnis id ated before the above date, you will need to send the disk to us for upgrading.

Mr J Hall
[illegible]

Dear Sirs,

I recently upgraded from Omnis 2 to Omnis 3 and whilst everything is working perfectly, I have noticed that there is no facility called "Multiple Update". How can I actually achieve a multiple update of my file?

Answer You will need to use the sequence option in Omnis 3 whenever a multiple update/deletion is required. Here is an example sequence:

```
Option

Select Search (prompted)
Search
Repeat
Test data against search format
    If Flag True
        Prepare for Edit
        Calculate DESC and CON (Desc, '..done')
        Update files
    End if
    Next
Until Flag False
OK Message (ok ive finished)

No errors found
```

We wish to ensure that we can offer our members a useful SIG and therefore Keith Chamberlain our representative will be co-ordinating it all at the BASUG end.

If you have any questions or ideas please contact either Keith at the P.O.Box or Odette Scutt at Blyth.

Remember we need input to make this new idea work.

EVERYBODY'S AFTER 'EM

VISION

Colour Modulator + sound for //e...	£25
PAL for use with colour TV for II...	£42
Resolution (80 col //e).....	£28
Resolution 64 (80 col + 64K RAM) 80 col for II upper/lower case, inverse compatible with Basic.	£55
CP/M & Pascal.....	£54
RGB for][+ //e.....	£49

DATA SWITCHES

PARALLEL, all 36 lines switched, Two - way communications.

1 to 2.....	£49
1 to 3.....	£59
1 to 4.....	£69
Cross Over	£69

SERIAL, two way communication.

1 to 2.....	£39
1 to 3.....	£49
1 to 4.....	£59
Cross Over	£59

IEEE, coaxial and other types available on request.

INTERFACING & CONTROL

IEEE-488.....	£79
Clock Card (Battery back-up).....	£59
A to D (16 Channel 8 bit).....	£69
A to D/D to A (8 bit).....	£85
I/O Card (4 ports / 2 timers).....	£59

OTHERS

Z80 CP/M (II or //e).....	£35
Disk Controller.....	£28
EPROM writer up to 2764's.....	£49
EPROM writer up to 27128's.....	£75
EPROM writer up to 27256's.....	£99

PRINTERS

EPSON	
LX80	£199
FX80+	£299
FX85	£329
FX105	£479
DX100	£299
KAGA/CANON	
80 Column NLQ.....	£199

DISK DRIVES

Apple II compatable drives.....	£99
Apple compatable drive //c	£109

MONITORS

KAGA	
12" HI-RES (green or amber).....	£109
12" Colour from	£209

PRINTER CARDS

CP/M,Pascal,DOS and ProDOS compatible

PARA-GRAPH.....	£44
Serial.....	£39
Serial/communication	£48
Printer card + 16K buffer	£90
Printer card + 64K buffer.....	£120
Printer buffer (64K).....	£129

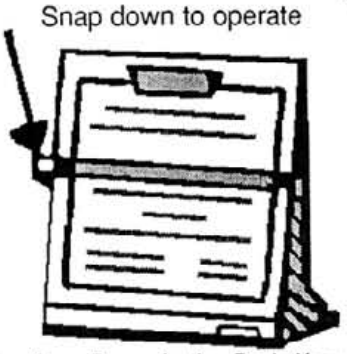
ACCESSORIES

Keyboard - 52 key ASCII encoded (upper and lowercase).....	£59
Power Supply	£69
AC cooling fan (line surge protection).....	£35
Joystick (Cursor adjust /self center) for II or //e.....	£30
Diskettes - Wabash SS/SD (10)..	£13
Diskettes - Datalife SS/DD (10)..	£19

SOFTWARE

Format 80 (Enhanced).....	£99
Multiplan	£89
Flashcalc	£69
Appleworks	£149
dBASE II	£299
Ormbeta Business Software	P.O.A.
Systematics Business Software ..	P.O.A.
Copy II plus	£49
Merlin	£49

Snap down to operate



New from Rosco is the Rank Xerox DATALINER which is an invaluable tool for any secretary who has to enter data or long letters into a computer. The DATALINER has an electric motor which moves a perspex reading arm silently down your page at the touch of the non-slip footpad. The DATALINER can be used standing on a desktop or on the adjustable clamp stand provided.

	R.R.P.	OUR PRICE
XER 001 (A4)	150.00	49.00
XER 002 (Large)	170.00	59.00

P & P: Computers, Monitors and Printers £9.00 + VAT per item. Interface Cards £1.50 + VAT per board. Others under £100 add £3.00 + VAT, over £100 add £5.00 + VAT

Rosco Ltd

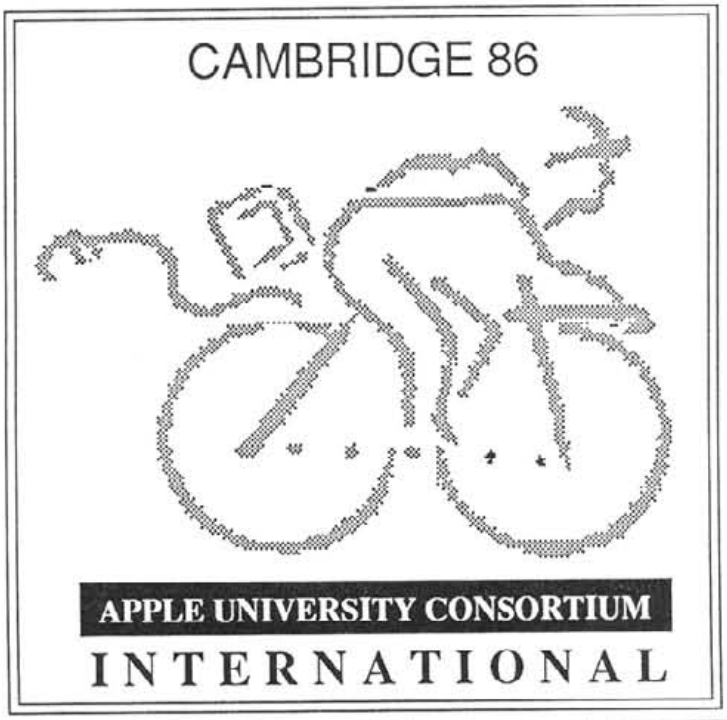
289 Birchfield Road, Birmingham B20 3DD. Tel (021) 356 7402
Telex: 334303 TXAGWMG

'Apple' is the Trade Mark of Apple Computer Inc

WHEELS FOR THE MIND
The First International AUC Conference

The Apple University Consortium held its first truly International conference on March 23-26 in Cambridge. Although formed in 1984, an inaugural meeting of the AUC (Europe) was held last year at Lund University in Sweden. However this was the first meeting to bring together over 200 delegates from 70 universities in 37 countries. This will be an annual event, sponsored entirely by Apple International, at a fresh location somewhere in the world each year.

The AUC was set up to promote the interaction and development of new methods of learning and teaching through the use of personal computers amongst the Universities and educational institutions worldwide. Apple have had the wisdom to look forward to the future, not only through their own research, but through the eyes of the users of tomorrow.



' a barrage of ideas and concepts'

Over the three days of the conference we were treated to a barrage of ideas and concepts, taking us very much into the world of the future.We were very rarely reminded of Apple as a marketing machine, rather we were reminded of Apple as a 'caring sharing' company moulding its resources to the educational needs of the market place. We were however given some glimpses into the future, though only reinforcing rather than confirming the current rumours.

It must be said that Apple declare not to announce any new product, until they are in a position to actually market it.

It was abundantly clear though that Apple is very much alive and kicking, and has not lost any of its pioneering spirit in the hard world of computing.

The conference was opened by Lord Adrian the vice-chancellor of Cambridge University and John Sculley chairman and president of Apple Computer Inc. Over the three days we heard presentations and keynote speeches from Universities around the world including Carnegie-Mellon and Drexel. From Apple themselves we heard not only from John Sculley, but from Jean-Louis Gassee vice-president of product development and Dr. Alan Brightman manager of Apple's special education programs. Between the main events, various seminars were held, and an exhibition of third party software was put on. We also had a hands on room, allowing direct experience of the various programs now available.

The lasting impression of the conference was the concept of the Macintosh being fully integrated into the schools and universities of the future. One machine per student has already been achieved in some institutions, and this is the aim of the rest. The computer is seen purely as a tool, and it should be seen as being transparent in a teaching environment. The Macintosh is the first personal computer to have been overwhelmingly adopted as the universal teaching tool round the world, as such we heard of 2000 - 3000 - 6000 plus machines in some universities, not all of them confined to the United States.

WHEELS FOR THE MIND

A great landmark was passed in Cambridge this year, a maturing of the micro into academic life. Almost ten years from its inception, the micro has lost its novelty and become the working tool of the student, sitting on his desk beside his pen and paper.

The 1st International Apple University Consortium conference was held in Cambridge this March and was opened by John Sculley, chairman of Apple Inc. In his opening address he drew the parallel of the micro being harnessed as the 'bicycle for the mind'. He also posed the question as to whether we were really aware of the implications that the micro had brought, 'we don't know what the future holds' he said, 'Apple is building bridges with the leading universities of the world.'

WHEELS FOR THE MIND

Extracts from the opening address given by John Sculley.

John Sculley addresses the Conference

Never before have human beings lived in a time of so much unpredictable change and I think it's useful to look back on one's own experience. In the year that I was born, 1939, there was a world fair held in New York and at that time they went into great detail trying to predict what the future would look like over the next 50 years and yet they never mentioned the computer. In the past 50 years we have seen the laser, the microprocessor being invented, that television was still a curiosity 50 years ago, that space travel was still a fantastic dream.

So visions are being redefined, we are in a world of constant and unpredictable change, and we need to have the ability to recognise when change can be important. In the case of Apple computer, the founders of Apple recognised back in 1980 that a new application called Visicalc dramatically changed the way that their product the Apple computer would be used, and this became perhaps the first really successful and popular simulation tool.

As we stand on the threshold of the imformation age, we find ourselves faced with a great paradox. Will greater information lead to greater knowledge? Will greater information confuse and drown us because we don't have the tools or the perspectives to cope? And this is why I believe that this Cambridge conference of world class academic minds is so terribly important: because we are living in a world where very rapid unpredictable change is normal. Within this context the challenge for educators is to teach the rest of us how to cope with the acceleration of knowledge and to teach young people (who are going to spend the majority of their lives in the 21st century) the process of learning. It is also to teach us to recognise that learning is no longer just confined to the structured institutional experience of going to a university, but that young people of today can expect to have two or three or five career experiences so that the process of learning must become a life-time experience.

So we have some very awesome tasks ahead of us which require equally awesome tools. And enter the personal computer, not however with the old perspective as micro-mainframe or as a desktop data processor but with a new vision, a perspective that looks at the personal computer as a bicycle for the mind, a personal instrument capable of expanding our personal boundary of knowledge, our creativity, our ability to be more productive, to help us learn, to communicate and to work in ways that we never before imagined. And this is the vision that I think all of us care about.

In the personal computer industry, we too were founded by the machine enthusiasts and that enthusiasm extended beyond the Home Brew computer club in the case of the Apple, to the schools and the universities and into business. I believe that the second generation or second revolution of the personal computer industry is going to be more exciting than the first.

We have another paradox, and that is to make the visible invisible:- we must take the technology that today requires us to be computer experts to use it, and we must make that transparent so that people are not intimidated by it. At the same time we must make the invisible visible, that is we must vastly improve the ability to access information. By this I mean going well beyond the models that we have today of being able to search and sort information, because in the complex information society that we are rapidly moving into, we are going to see that the complexity is going to require new paradigms of how we access information.

A simulation makes the individual a proactor, an explorer into knowledge and it makes the individual at the same time sceptical and an active participant in modelling various possiblities. In Apple's case we took a bold move for a young company and we acquired one of the most powerful computers in the world, a Cray XMP.....

The reason we went to a machine as powerful as the Cray was that we felt we had to begin to invent many of our own technologies because there is no-one out there that we see that is pursuing these alternative technologies with the dedication and the aggressiveness that Apple has. One of the ways that we believe that we can be successful is by beginning to simulate the computers of the future even before we have the ability to build them in hardware, by using powerful simulation tools. The Cray XMP is building bridges with the leading universities of the world. Apple is a young company but it is a financially healthy company with almost half a billion dollars in cash, with profits improving at a steady rate, with the ability to increase our research and development by 50% over this year. At the same time, as good as that sounds we know we have to have the ability to depend on the help of other alliances. So Apple is building bridges within the technology community on the industrial side and building bridges within the university communities, recognising that it is even worthwhile having some technologies be part of the public domain, in order to get the best minds in the world focussed on these themes of human interface and advanced graphics.

We see the computer - regardless of how powerful it becomes - as always a product that starts with the individual, personal computing as an exhilirating interactive personal experience with knowledge. Apple's role is not to say how things will happen, but rather we see ourselves as being a provider of technology and personal products and to be catalysts, bringing together people from a wide range of academic disciplines, and the great priviledge we have is to be able to participate with the great academic minds and the great universities around the world to help you become the solvers of these incredibly challenging opportunities.

John Sculley.
Cambridge University March 24th 1986.

WHEELS FOR THE MIND
The presentations.

Various themes were put forward during the conference, but the overwhelming assumption was taken that every student world wide should own a Macintosh as part of his everyday equipment.

We first heard how Lund University had some 500 increasing by the end of this year to 1500 Mac's, next we heard how Drexel University had currently some 2000, then we heard how Carnegie-Mellon had some 6000 on campus. At Drexel University a student cannot enter the university without owning one. If they did not have one already, then they could buy one at zero interest and at a competitive price from the university.

'every student world wide should own a Macintosh'

This was followed by the theme of ease of access. Most institutions had the machines operating both stand alone and as part of a local area network. File servers were placed on the mainframe computer, and then accessed remotely by means of the MAC, often through various intermediate systems including the standard telephone network.

Ease of access also covered progamming, and a round of applause greeted the presentation of LeLisp, as we were shown how to build an application using the mouse/keyboard and no knowledge of any language whatsover. Methods of teaching mathematics could change after the presentation of a mathematic construction kit for maths functions given by the Australian contingent. Other themes covered the need for a new look at program languages, at networking and the overall problems posed by introducing the computer to the workplace and the home.

One problem posed by most of us present was answered by Drexel when we learned that they employed 40 programmers on the staff. These were fed by faculty decisions and worked as a team. Some of the programmers were in fact post-graduate students continuing projects started while at college.

The most mind boggling statistics came from Carnegie-Mellon University whose stated aim 'is to be the most advanced educational institution in the world using computers'. We heard how for a student population of some 6100 they had the following: 8 DEC 20, 150 VAX, 50 Hewlett Packard, 1 IBM 3083, 1 Cray XMP, 2 VAX 8650, 200 PERQ, 150 IBM RT PC, 200 SUN terminals, 300 other terminals, 2000 IBM PC and 2000 MAC's, not including the one per head MAC for each student. 15% of the budget goes on computing. They have a campus shop that will sell you any kind of computer including a Cray, and with no salesmanship they have sold 2000 Mac's since February 1984. This accounts for 60% of all sales, currently at 50 Mac's a month of which 30% go to the university. It was stated that this was not simply to technology students as Fine Arts students are also using them for various reasons from word-processing to computer graphics.

'With the power of a Cray in your pocket, who knows what will happen or be possible in the future'.

The new ways of thinking brought on by the micro, and the new ways of teaching that are now being worked out, mean the future will be quite different in our schools and universities. We can never be quite the same again. This revolution has only just started, with machines as yet not conceived. With the power of a Cray in your pocket, who knows what will happen or be possible in the future. Apple and the forward thinking in the university consortium, are trying to put shape to this process here and now.

'This revolution has only just started with machines as yet not conceived'

WHEELS FOR THE MIND
Some quotations

"Normally at this time I would be teaching in my class trying to stamp out ingorance"... Peter Olivieri, Boston College, USA.

"I feel like being called to the Vatican to discuss the Immaculate Conception"... Jean-Louis Gassee, Apple Inc. referring to the 'eminent' audience.

"University politics are so vicious because the stakes are so small"... Henry Kissinger quoted by Michael Adams, Drexel University, USA.

"Its like putting bearnaise sauce on a hotdog"... Jean-Louis Gassee on the misuse of computers in education.

"Most of the architecture of Cambridge seems to be copied from Boston College"... Peter Olivieri.

"Many people find programming difficult because the medium of expression of ideas is different to the creative procedures. It would be a lot easier if metaphors were the same between the language and application"... Dr David Thornburg, Stanford, USA.

"The Sperry mainframe we have been using for seven years will close down in December 1987. At least the Macintosh is still affordable by poorly-paid Swedish professors"... Professor Kjell-Ake Modeer, Lund University, Sweden.

"Babbage was asked of his first machine, 'pray if you put in wrong figures will the right answer come out'"... Dr Hakan Westling, Lund, Sweden.

"The computer is a mirror of the mind's eye"... Dr David Thornburg, Stanford, USA.

"If we had been able to transport what we have seen over the last few days, despite the barrier of international states, we could change the face of the earth"... Mike Spindler, President Apple International.

AppleCentre Knightsbridge

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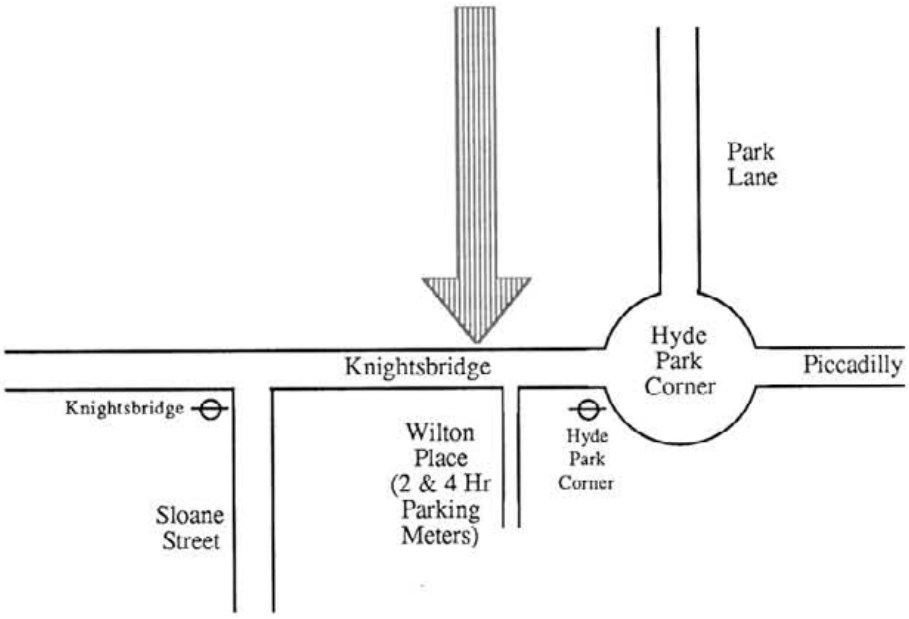


We are open from 9.30 a.m. until 5.30 p.m. every day except Sundays and Bank Holidays.

We carry a large range of Macintosh and Apple // Software, as well as the range of Apple Hardware.

If you would like to come in and browse around, chat with the staff - and maybe get a coffee - we would enjoy your company.

If you need Laser Printing for your work, bring the document. If you need Comms facilities through One to One, bring the mailbox or Telex number.

AppleCentre Knightsbridge is a branch of Advanced Micro Products, 200 Court Road, Eltham, (01-851 3311). AMP is on the A20, Sidcup Bypass, right by Mottingham Station. AMP is open from 9.00 am to 5.00 pm, Monday through Saturday. All Apple Hardware and lots of software is there - if its nearer than Knightsbridge, why not pop in?

WHEELS FOR THE MIND
The Future

Apple will never be drawn on what projects they are working on or will release. They prefer to wait till they are ready for launching before telling us. In the light of recent personal computer history, this is a very wise decision.

However we know some facts, and can make speculations on others. Some of this information is old by now, but the following notes were culled from three days of meeting and hearing Apple personnel talking themselves.

We shall see many more fonts for the Laserwriter. Apple are expanding the desk-top publishing market, as it has proved to be a new direction that as yet has few imitators.

A new version of Pagemaker will shortly be released. This will have more features, and allow kerning of text. Registered users will be informed of the update.

A language development system for the Macintosh is almost ready for release. This will allow a much easier environment for programmers who have little knowledge of the inner workings of the machine.

Future peripherals for machines of both the][series and the Mac, should be compatible. This will mean hard discs and other drives can be connected to either machine.

The SCSI port will become a standard interface on any new machines, this includes the][series.

Unix will be supported on future Mac work stations.

There will be an open architecture version of the MAC in due course.

There will be a new version of the][series fairly soon, both in closed and open architecture versions. Apple will continue to support users of the current][series by making the new machines compatible with current software.

There may well be a CDROM from Apple. They have been looking at this and other means of mass storage.

The American standard Internet Protocol may well appear as an addition or attachment to future machines.

An A4 display compatible with the Laserwriter may well appear soon, this will allow display of the page as it will be printed.

Finally to quote Keith Phillips, director of Marketing for Apple UK ... "if you think of what you would like to see launched by Apple in the future. You may well be pleasantly surprised by what appears in due course".

Students at Cambridge using the Mac in their studies.

Short Courses on the 'Apple][' Microcomputer.

The University of Salford will be running a programme of short courses based around the Apple][Machine. These courses will be appropriate for users of Apple][, //e, //c machines.

The courses are as follows:-
The Apple for Beginners - Two day introduction to BASIC and general use of the machine.

Getting more from your Apple - Three day intensive course for those already familiar with the machine.

Machine Code Programming on the Apple - Three day intensive course on the Machine Code programming and associated subjects.

These courses are run by the University Staff and full details can be obtained from :-

Conference Office
Maxwell Building
University of Salford,
Salford M5 4WT
Telephone 061-736-5843 Ext 449.

You will need to hurry as applications close on the 14th June 1986. A bonus of 10% discount is offered to BASUG members.

Apple's good news !

Whilst collecting the usual press bits and pieces at the Apple University Consortium Meeting on March 24th I came across a useful piece from the San Francisco Examiner dated Friday March 21, 1986.

John Markoff in a front page leader entitled

"Leaner, meaner Apple Computer taking bigger bytes"

has put Apples upward swing down to three points -

1) Bigger than expected sales of MacPlus.
2) A really strong International Market.
3) The effect of stronger gross profit margins.

These facts have led Apples shares to rise to $28.25 from the low last year of $14.25. This rise is unusually strong for a computer company in the present market decline.

Apple //c Stand-By Power Supply - A useful DIY project.

Now thanks to Peter Davis you can compute as you drive - or even have the most powerful Fuel Calculator.

I have produced a simple standby power supply for the //c. It also plugs into the cigar lighter socket on your car; so you can drive and compute at the same time !.

It is easy to make, and from my point of view well tried, because a few years ago, I had made the same sort of thing as a standby supply for SAT NAV on my boat.

What I needed.

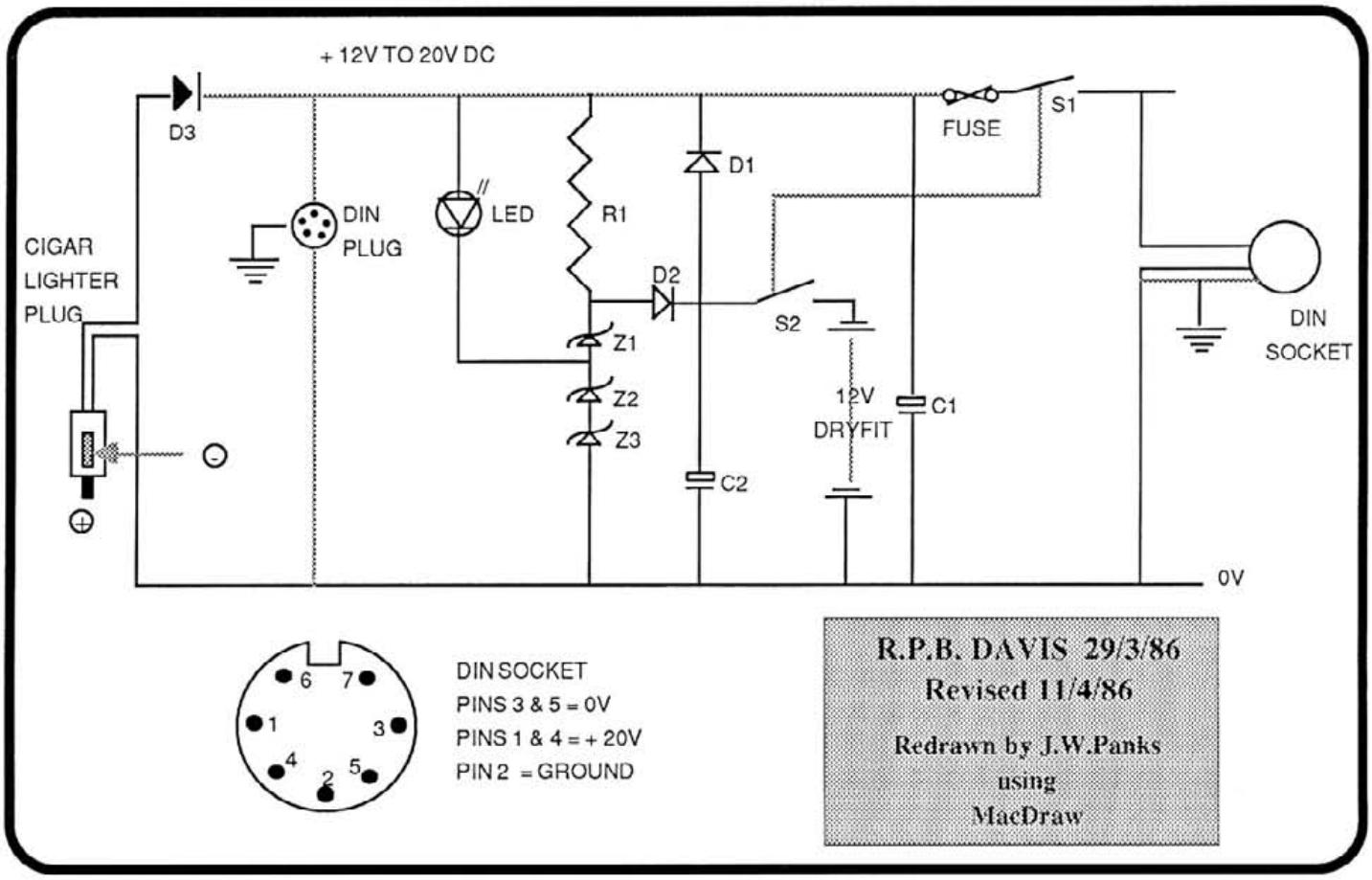
- To be able to work my Flat Screen //c from the cigar lighter socket of my car.
- I did not want the whole thing to stop when I kicked the cigar lighter plug out of its socket, or when the car started on a cold morning.

become common within the //c).

The //c has its own internal regulated 5 Volts DC power supply, This stabilised DC source is a very compact, high frequency 'Switch Mode' device which is tollerant of wide input voltage change. It needs roughly between 20 Volts and 9 Volts DC to run the //c. It is this DC current that also runs the Flat Screen Display.

Component List.

With the exception of the 7 pin DIN socket for the back of the //c, everything is out of the Radio Spares catalogue, but you will find the same components at Tandy outlets.



- A very simple standby power supply for the //c with about ten minutes supply without the mains. Enough time to download to disc when the lights go out !.
- I wanted it to be charged by the //c power unit or the car.

The Apple //c power supply.

The standard external Power Supply //c gives an unregulated 20 Volts DC supply which delivers between 1amp and 1.8 amps depending on how the disk drives are working etc. It is rated at 18 Watts 1.2 Amps @ 15 Volts.

The DIN 7 way line socket is wired to four pins only as follows; Pins 3 & 5 to) Volts. Pins 1 & 4 to + 20 Volts. Pin 2 is wired to Ground. (Note the 0 Volt and Ground pins only

- 1 * Box ABS [190*110*160 mm.]
- 2 * 1000 micro Farrad electrolitic capacitor, 25 V working.
- 1 * Cable mounted, 7 pin DIN socket.[Goes into the //c]
- 1 * Bulk Head Mounted, 7 pin DIN plug.[To accept the normal Input DIN socket from the //c Mains Power Supply]
- 3 * 5 Amp, 25 Volt Schottky Diodes VSK530
- 1 * 12 Volt, 1.8 Amp Hour 'Dryfit' lead acid, maintainance free, leakproof battery. [Requires constant voltage 13.8 Volt charge with less than 180 mV of ripple.]
- 1 * Double Pole, Double Throw Switch. [S1 + S2]
- 1 * 12 Volt, LED.
- 3 * 5 Watt Zener Diodes IN5333 type. [Connected in series and selected to give 13.8 Volts at the Battery]

- 1 * 5 Watt, 27 Ohm resistor.
- 1 * 5 Amp fuse and fuse holder.
- 1 * Male Cigar Lighter Plug.

Cost of above components about £25.00: Weight approx 2kg.

Circuit Description.

The mains driven Power Supply //c is used to charge the battery at exactly 13.8 volts when the computer is out of use.

The cigar socket on a motor car gives about 10 volts DC when the starter motor is on (No voltage on some vehicles), between 12 volts and 12.6 volts when engine is static and up to 16 volts when engine is running.

The circuit is very crude and could be improved, I am only a mechanical engineer and therefore would welcome any improvements.

S1 & S2 OPEN.

•The Battery is isolated. The LED lights up if external power is applied. There is no output.

S1 & S2 CLOSED.

•No power IN (or less than 12 volts), the battery can deliver power to the //c. The LED is DIMMED.

•Power IN over 12 volts but less than 15.8 volts. Goes direct to the //c. The battery is neither charged or discharged. The LED is ON.

•Power IN over 15.8 volts. Goes direct to //c. The battery is charged at 13.8 volts. The LED is BRIGHT.

DIODES

•D1 Conducts when battery voltage exceeds output line voltage.

•D2 Conducts when voltage at top of Zener Diode train exceeds battery voltage. It also acts as a blocking diode to prevent discharge of the battery Zener Diode Train.

•D3 Conducts when cigar plug voltage exceeds output line voltage. Because the cigar plug is on loose lead, it also acts as a blocking diode to prevent a short circuit of the battery and/or the Power Supply //c.

Z1,Z2,Z3 have reverse conducting voltages 3.3, 6.8, 4.7, total 13.8 Volts.

CAPACITORS

C1 and particular C2 serve to provide the required ripple characteristics.

GROUND

The ground line from the Power Supply //c goes straight through to the //c. No attempt has been made to connect grounds to either of the input lines.

CONCLUSION

This design could in theory support the //c for nearly an hour, but it is not recommended for that purpose. A unit intended for long term use (say 5 hours) would need a 'Dryfit' battery of 6 - 9 Ah capacity weighing about 2.5 - 3 Kg. The constant 'voltage part' of my circuit which is very inefficient, would require the incorporation of a 'true' constant voltage chip to ensure maximum charging and current limiting (say based on a 1.5A adjustable voltage regulator IC like the 317T).

QUICK TIPS

CP/M - patch for PIP

Most people use the [V] option when transferring a file. Rather than type this every time it is possible to patch PIP 1.5 (used with CPM 2.0 and up) to always verify.

```
DDT PIP.COM
   NEXT  PC
   1E00 0100
   -SB34
   0B34 1F 37
   0B35 D2 .
   -G0
A> SAVE 29 PIPV.COM
```

Mixed fonts on your spreadsheet?

Well not quite, but if you have the right printer you can at least put a Bold heading at the top. It all depends on whether your printer has a command for 'Expanded print with automatic turn off' i.e. the one that only prints one line of Bold then reverts to normal for the following lines.

For some Epsons this is 'control N', and on the Taxan Kaga 'escape control N'. Put this in the printer string or set up the printer from the keyboard first.

Make your title the very top line of your model, and set it well to the left to take account of the expansion. You can still have your preferred font for the rest of the page if you include that in the printer string as well.

Data Highway Fix for Dacom Modem.

The Prestel package in Data Highway is very good but as it stands you cannot use it with the Dacom modem. This is because the Dacom modem communicates with the Mastercard 1 at 1200 baud and the Prestel package is set up at 75/1200 baud.

The Mastercard 1 requires a value of $24 to make it operate at 1200/1200. This can be overcome by changing the baud rate stored on the Data Highway disk for Prestel.

This is stored on track $12 sector $E byte $71 which contains $0C for 75/1200. By using any disk zapping software (e.g. Disk Manager from BASUG) and writing the value $24 to that location you can then communicate with the Dacom modem using the Prestel package.

Maurice Long.

Information received at this office suggests that the latest version of Data Highway overcomes the above problem. Ed

RAMWORKS 256K - 80 Column Card
An in depth review.
by Dave Ward

After owning an Apple][™ plus for almost six years I decided to upgrade to an Apple //e™ to take advantage of the latest improvements which are becoming available. One of the important features of the Apple //e is the extended 80 column card which increases the internal memory to 128K.

This alone seemed a good enough reason but recent advertisments in the American magazines and later in Apple User for RAMWORKS indicated that an 80 column card could contain as much as 3 megabytes of extra memory! On the basis of the advertisments I decided that I should purchase a 256K RAMWORKS extended 80 column card. This card was ordered by the Dealer and was delivered in a little less than 40 hours!

Having used the system for 2 months I would like to pass on my findings to other BASUG users.

The basic RAMWORKS card is a completely compatible 80 column card with space for 1 (64K) to 8 (512K) banks of extra memory, that resides in the auxilary slot in the Apple //e computer. It doesn't stop there because you can expand the memory by up to a further 2 megabytes simply by fitting a 'piggy-back' board.

You can also add an RGB 'piggy-back' board too, which provides standard Apple RGB output to an appropriate hi-resolution monitor. Normal and double hi-resolution graphics are supported. Due to differences between USA and European Apples, particularly in the location of the auxilary slot, some problems may occur but we'll discuss those later.

'My RAMWORKS card arrived well protected in a padded cardboard box '

My RAMWORKS card arrived well protected in a padded cardboard box which also contained a two-sided diskette and a well produced 23 page technical manual. The Manual gives clear and precise information on fitting the main card in the auxiliary slot (it only just fits covering the main slot 3 in the process!). The manual goes on to describe the operation and features of the 80 column card which is claimed to be totally compatible with software written for Apples' extended 64K 80 column card.

Technical information clearly describes how to use the features when programming in BASIC and other languages. Next information is provided for purchasers of the RGB option to enable them to buy compatible hi-resolution monitors. Finally the rest of the manual is used to describe how to access the memory in the RAMWORKS card from machine code and assembly programs. This information is very comprehensive.

Basically the extra memory is arranged in banks of 64K bytes which can simply be switched in by placing the required bank number in the bank register ($C073). Although bank numbering is complex this is well described in the manual. Also whatever bank is switched in, the memory used for the 80 column card is still taken from bank 0 the one all 128K Apples have!

RAMWORKS was, apparently, designed to allow Appleworks users to have a larger desktop capacity than the 55K maximum for 128K Apples. No mention of this is made in the manual but the accompanying diskette clearly states 'SUPER APPLEWORKS DESKTOP EXPANDER' on its label.

This diskette contains the following :-

Mainside : 1> Super Appleworks Desktop Expander

This program allows you to use the extra memory contained on the RAMWORKS card to increase the desktop space in Appleworks. This lets you have larger wordprocessor documents and databases with more records etc. If there are at least 256K bytes on the card then you may arrange for all the Appleworks overlays to be loaded into the ram memory which virtually obviates the need for the program to access its program disk thus speeding up its operation.

For instance you get instant response when you require help (Open-Apple + ?) or change from one type of desktop application to another. This can save vast amounts of time for business users who may have many files on their desktop and wish to flip between wordprocessor, spreadsheet and database applications. Of course, from time to time you should save ammended files from the desktop to disk. When you change printer information etc. this will be saved on the Appleworks Program diskette so its generally a good idea to leave the diskette in drive 1.

For Apple //c and Apple //e users with certain serial printer interfaces part of RAMWORKS can be configured as a printer buffer. Cards which Applied Engineering have tested are :-

- Apple Super Serial Card™
- Practical Peripherals Graphicard V1.1 or later.
- SeriALL Card
- Orange Micro Grappler+ V3.2 or later.
- Apple //c Serial Port.

Another nice feature for those users with a ProDOS™ compatible clock is the provision of the date-time printed at the bottom right-hand corner of the screen. Also if you are entering date or time (not both) into a Database category with date or time in its followed by carriage return. This must obviously work with Thunderclock cards and compatibles but also works perfectly with my Glanmire Proclock in the games port! (Glanmire Electonics supply a patched ProDOS file).

You pay for all these goodies by having to wait about 1 minute longer for the diskettes to load, that is a total of 90 seconds.

Mainside : 2> PRODRIVE ramdisk for ProDOS

When you boot a ProDOS 'startup' diskette on a 128K Apple //e or an Apple //c the extra 64K bytes of auxiliary memory is automatically configured as a ramdisk /RAM. You, of course, have free access to this volume which works just like the Disk][but is vastly quicker!

To use PRODRIVE all you have to do is to type BRUN PRODRIVE which conveniently sets up a large ramdisk utilising all the higher 64K byte banks of auxiliary memory on your RAMWORKS card. The lower 64K byte bank (the one found on all 128K Apple //e and Apple //c machines) is left free just in case your program wants to use it.

For instance my 256K bytes RAMWORKS card allows a 192K bytes ramdisk automatically set up on BRUNning PRODRIVE. This can be accomplished from the keyboard by typing :- BRUN PRODRIVE or you may invoke it from a running BASIC program :- 100 PRINT CHR$(4) "BRUN PRODRIVE"

An instruction program explains how you can configure the PRODRIVE utility to use or free any of the available 64K byte banks of memory on the RAMWORKS card. Using this technique it is possible to partition the memory to enable one or more ramdisks even under different operating systems to co-exist. Providing you don't switch off the Apple //e you can boot another disk by pressing Control-OpenApple-Reset. This new application must not of course use the 64K byte banks of ram used by the ProDOS ramdisk but may use others. Later when you boot a ProDOS application press the ClosedApple key whilst PRODRIVE is 'setting up' the ramdisk : this ensures that the files already on the ramdisk are retained!

A program PARTITION on this diskette allows you to set up the PRODRIVE utility so that all 64K byte banks of memory are used in the ramdisk or one or more contiguous banks of memory from lowest 64K bank can be left free whilst the higher banks are used in the ramdisk.

One of the other utilities on this side of the diskette is COPY.FILES which as expected allows you to copy files from diskettes to your ramdisk. The operation of this program is clearly described in the instructions but does require some BASIC programming knowledge to use it. It is possible to rename an amended version of this program as STARTUP so that files from one or many diskettes can be transferred to the ramdisk on starting up the application. You are prompted when to enter the diskette from which the files are being copied from.

Flipside : 1> Dos 3.3 RAMDRIVE utilities

The 'Ramdrive' utilities diskette I received only! supports up to 1 megabyte of Ramworks memory. Documentation is supplied on the diskette and runs to six full pages of comprehensive, well written information on all the utilities and technical details.

Ramdrive is very easy to use just type BRUN RAMDRIVE from the keyboard or insert the following line into your BASIC program ; I've chosen line 10 but you can choose any legal line-number :- 10 PRINT CHR$(4) "BRUN RAMDRIVE" and the deed is done! You will now have a super-fast electronic disk in slot 3. Ramdrive cleverly sets up a drive for each 192K bytes of Ramworks memory it finds. So a 256K bytes Ramworks produces drive 1 (744 sectors) plus drive 2 (239 sectors). If you have a 1 megabyte Ramworks you will be presented with six drives : drive 1 (744 sectors) , drive 2 (749 sectors) , drive 3 (749 sectors) , drive 4 (749 sectors) , drive 5 (749 sectors) and drive 6 (239 sectors). A total of 1024K bytes all in slot 3.

Also provided is SPEEDOS by Lee DeRaud and published by Call- A.P.P.L.E. You simply invoke this by typing BRUN SPEEDOS from the keyboard or 10 PRINT CHR$(4) "BRUN SPEEDOS" from within a BASIC program. SPEEDOS vastly improves loading and saving of Applesoft and binary files. For instance a Hi-Res picture loads in less than a third of a second.

A modified version of FID is provided so that you can copy all your files from diskette to the ramdrives. Also an EXEC file is provided that will copy all the files from the diskette to the Ramdrive and can be used as a 'turnkey' on boot-up. If you have a word-processor a copy of this EXEC file can be editted so that it will load the files of your choice.

A diskette copy program is supplied that uses the Ramworks memory as buffer which means that a normally formatted diskette can be copied in 'one pass' with a Ramworks of 128K bytes or greater. This is particularly useful for single-drive users.

Over three pages are devoted to customising Ramdrive and technical information.

BRUNning RAMDRIVE does not destroy any existing program already in the ramdrive unless you hold down the closed-apple key on and during the execution of RAMDRIVE.

RAMDRIVE can be configured so that it is specified from a slot other than slot 3. Even slot 6 may be used ! and you may specify drives 3, 4 and 5.

The number of directory entries may be altered in multiples of 7 from 7 (min) to 105 (max).

Another interesting feature is the ability to lock out whichever memory banks you desire. For instance bank zero which is the bank that is present in all 128K Apple //e and Apple //c computers may be used by a program and can be left unused. Even small areas of the zero bank may be marked taboo to allow double Hi-Res graphics etc.

This is but a sample of the configurations that can be made.

Applied Engineering also provide a diskette to enable Pascal, CP/M and Visicalc to access the extended Ramworks memory.

Having used AppleWorks in conjunction with a 256K bytes Ramworks (thats what Ramworks was designed for) I can state that it is an excellent product. However, there are some points worth mentioning :

• 1> The 'ramdisk' option which is available to 256K bytes and larger Ramworks is not a true 'ramdisk'. AppleWorks has a clever memory management system such that any files you load into the desktop will remain there until you actually remove them.

However, if there is space in the desktop overlays such as help messages or program code temporarily stored there. These overlays will be displaced if there is no free space to load files or other overlays which are required.

So if the program requires an overlay that is already temporarily stored in the desktop it will not be loaded from the diskette thus saving time. Ramworks makes use of this feature by loading all the overlays (functions), of which there appear to be 42, into the desktop when AppleWorks is booted.

This is what takes the extra minute referred to above. Since a 256K Ramworks provides a desktop of but 188K and the overlays (functions) use about 130K AppleWorks will be forced to access the diskette for some overlays once your files in the desktop exceed about 55K bytes. This will become less apparent with larger Ramworks memory cards. You must still leave your AppleWorks Program diskette in drive 1 as printer specifications etc. are still read from or written to

In conclusion Ramworks is an excellent product that is reasonably and competitively priced.

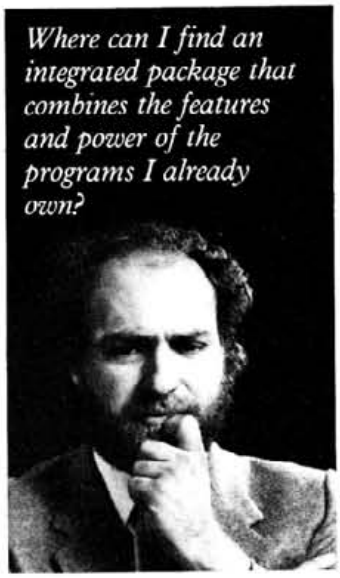
• 2> I contacted Bidmuthin Technologies regarding the maximum size of 2.5 megabytes quoted in advertisments in UK magazines whereas American magazines quote 3 megabytes! I was told that only 'Ramworks 1' card will fit into the auxiliary slot of a UK Apple //e which gives 0.5 megabytes plus the 2 megabytes with the 'piggyback' board ; hence the aforesaid 2.5 megabytes.

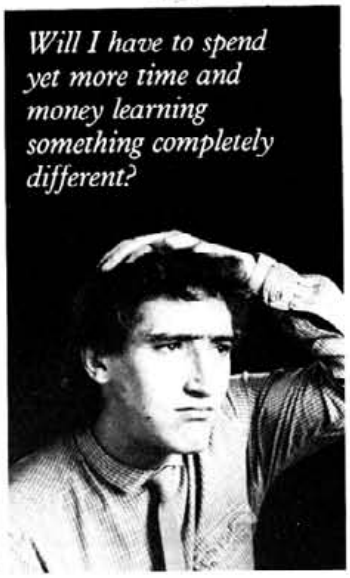
The 1 megabyte 'Ramworks II' board will not fit into the auxiliary slot of UK Apple //e computers because it is too long! The 'piggyback' board should not normally interfer with a card in slot 4.

• 3> No registration card was supplied with my 256K Ramworks board but Bidmuthin informed me tha are not supplied because registration cards are not generally returned. So I asked 'what about problems'. The answer I received indicated that not many problems would be expected from such a high quality product and that any problems reported to Bidmuthin would be dealt with in a friendly manner.

If only there were an alternative to integrated software!

SPECIAL DISCOUNTS FOR BASUG MEMBERS





You've probably considered the benefits of buying a program that does several different jobs from one disk. After all, most computer users need to switch from one task to another several times a day. And repeatedly closing down your current program, booting a different disk and then trying to find where you left off wastes valuable time and disrupts your flow of work.

Integrated software would be the obvious solution if it weren't for the fact that one Apple II user is likely to have very different needs from another.

The remarkable Snapshot Shuttle™ is an inexpensive device that gives you a simple alternative to worrying about the drawbacks of integration. It lets you keep up to four different programs in memory at any one time.

You want to combine the best word-processor with the fastest spreadsheet, a versatile comms package and Hitch Hikers Guide to the Galaxy?** Fine. With the Shuttle you're free to choose.

You can switch rapidly between your programs with just the flip of a switch, and each one resumes running exactly where it was interrupted. No fuss, no waiting. The Shuttle even works happily with integrated software!

You already know everything you need to know to use the Shuttle. There are no new commands for you to memorize and no piles of impenetrable documentation to wade through. And because it uses the interrupt-and-resume power of the Snapshot card, the Shuttle gives you access to a whole new world of great, easy-to-use utilities that will enhance your Apple at home and in the office.

Ask your local Apple dealer to demonstrate the power of the Shuttle for you, or write or call us for more information.

PRICES (ex VAT)

Snapshot version //e card (requires software)	£ 95.00
Shuttle software pack (requires card)	£ 20.00
Printerrupt software pack	£ 20.00
Copykit software pack	£ 20.00
UniCopy 3.5 software pack	£ 20.00
Shell software pack	£ 20.00
All 5 software packs	£ 60.00

SYSTEM REQUIREMENTS
Apple II+ or //e with minimum 128K RAM and 1 disk drive.

MEMORY EXPANSION CARDS
The Shuttle will let you load 2 x 64K programs into a 128K Apple. Naturally, the more memory you have, the more programs you will be able to load. The Shuttle works with all the popular RAM cards including Apple's new Memory Expansion Card.

Cirtech 64 extended //e 80-column card	£ 50.00
Dark Star Ramrod 128K card	£ 90.00
Cirtech Flipper 1MB card	£315.00

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+44 1 900 0104 (International)
Telex: 8813271 GECOMS G
Source Mailbox: BCJ456

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• 4> It is a pity that the auxiliary slot in UK Apple //e computers is in front of slot 3 because any card placed in that slot will almost certainly interfere with or cover slot 3.

American Apple //e computers have their auxiliary slot in the far left-hand corner of the motherboard leaving the main slot 3 free for other cards. Effectively they have an extra slot. Why?

There is a version of Ramworks available for Apple //c users which also incorporates a Z80 processor supporting CP/M.

Price: £219 plus VAT

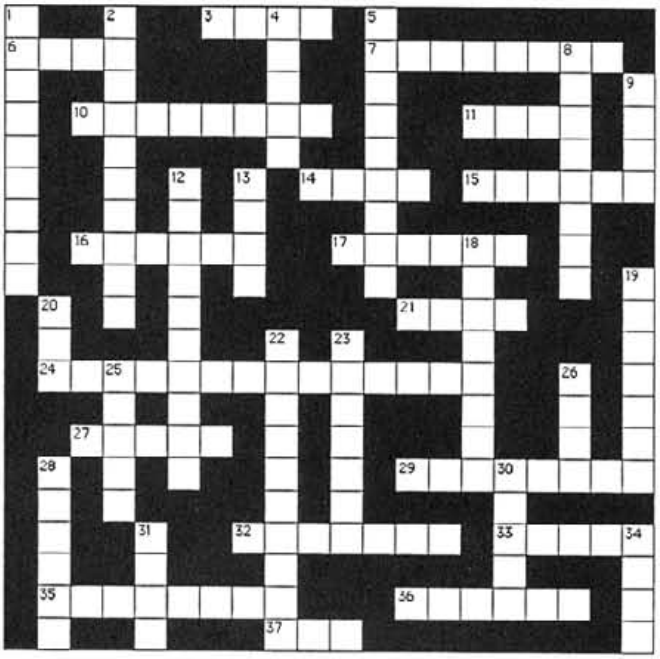
Manufacturer:
Applied Engineering
P.O. Box 798
Carrollton
Texas 75006

Distributor:
Bidmuthin Technologies
42 New Broad Street,
London EC2M 1QY

Dealer
Micro Applications (Central) Ltd.
Greyfriars
Stafford ST16 2SA

END

PRIZE CROSSWORD
by Tom Wright



DOWN

1. DONALD CAMPBELL
2. ADD ON
4. SET OF FACTS OR FIGURES
5. INSECTICIDE
8. RESTORE
9. ALLOWING ACCESS
12. A STANDARD
13. MAKE AN EFFORT TO SEE
18. RECENTLY REVIEWED
19. RETURN TO FORMER PLACE
20. ABRUPT SOUND
22. ADDICTIVE GAME OF THIEVERY
23. MOST IMPORTANT AREA
25. DIFFICULT TO DO ON STONY GROUND
26. FORCEFUL FOOTWARE
28. UNLUCKY PRACTICE WITH SHIPS
30. GRADED SYSTEM
31. DARK VOLCANIC ROCK CARVED IN ERROR
34. PLAYER'S DEPARTURE FROM STAGE

ACROSS

3. FACTS AND THINGS
6. SERVANT
7. YOU ROW AS WELL AS
10. GOOD EARLY PACKAGE FOR APPLES
11. INTERPRET MENTALLY
14. GOOD WITH GRAPHICS
15. BUILDER OF GREAT WISDOM
16. THE GRAPPLER'S COLOUR
17. MAKE INSECURE
21. VERSATILE PACKAGE
24. PADDLES AND JOYSTICKS
27. REPAIR
29. NOT USED MUCH NOW
32. OPPOSITE
33. THE VERSATILE PACKAGE IS PART OF THIS
35. FRIENDS IN THE MIDLANDS
36. ATTACH
37. WOOD DOES THIS SOMETIMES

Send answers to P.O.Box. First correct solution receives blank disks to the value of £12.00.

This puzzle was initially designed using Crossword Magic - available from L&S Computerware. Tel (408) 446-1657

Cryptogram - Ideas on changing a program. The latest episode in our Beginners Pages.

Of the two accompanying listings, List No. 1 is a copy of one which appeared in the July 1984 issue of WASHINGTON APPLE Pi magazine, The article in which it appeared was by Paul A. Ternlund.

I thought that the Cryptogram Generator looked like the sort of thing that could provide some good fun and might interest other beginners like myself.

The program produced by Paul basically provides scrambled versions of the original words which are incorporated in the program. If you run the program a few times you will find that it produces different scrambled versions each time that it is run, the main drawback from my point of view was that whenever I wanted to use a new set of original words, or a different number of original words, I had to rewrite the program.

A feature of Paul's program that I didn't like was the way in which it always maintains the last letter of the original word as the last letter of the encrypted version. For me the desire to see the above features changed resulted in an interesting little exercise which I hope will be of interest to other members.

List No. 2 is my modified version of Paul's program and you will see that it achieves the three desired changes :

- 1. Allows new words to be used each time.
- 2. Allows a different number of words to be used each time.
- 3. Does not maintain the position of any letters from original words in the encrypted version.

I have used line numbers in List No. 2 which are identical with List No. 1 in all cases where the line is unchanged from the original version. Variable identities are also maintained where possible.

As with most problems the data represented in a listing of original words can be tackled in more than one way, it could for example be included in DATA statements but you would still be effectively rewriting the program each time you changed the original words.

In order to achieve improved convenience and flexibility I decided to rewrite part of the program using the INPUT method of data entry, this method kills the proverbial two birds with one stone since it accomodates both variation in the words themselves and the number of words used.

The problem of avoiding maintenance of the last letter's position was solved by brute force as you will see in the listing. Anybody having a better understanding of the random routine used who is able to describe a more elegant method will have at least one very attentive listener.

Due to shortage of time I stopped short of incorporating other features which might be useful, eg.,

- a. Choice of selecting output to screen, printer, or both.
- b. Choice of printing only original words, encrypted words, or both.
- c. Menu feature to facilitate the above.

If I have time, and provided that nobody screams for mercy, I'll have at go at those at some time in the future, unless anybody else would like to.

Differences between the listings are summarised as follows:

LIST NO. 1		LIST NO. 2
100	Not required when using the INPUT method.	100 User quantifies the variable Z.
110	Is located at 305 in List No. 2.	
120	Located at 151 in List No. 2.	
130	Specifies the number of words used.	130 Uses the variable Z to specify the number of words used.
140	to 300 inclusive are not required when using the INPUT method.	140 Sets a loop counter using the variable Z.
		150 User is asked to enter an original word, which is identified sequentially by number.
		160 User's input is recorded as A$.
		161 PA$ is defined as a blank
		162 The blank entered in 161 is added to the right hand side of the word entered at 160.
		163 The word is printed on screen.
		190 Return point for the loop opened in 140.
		305 Equivalent of 110 in List No. 1. (turns the printer on).
		451 Removes the blank (which has been maintained in place of the last letter) from the right hand side of the word by redefining it to nothing.

Line 500 was added as an after thought to both programs, Paul like myself apparently usually forgets to incorporate a line to turn the printer off again (costs me a fortune in paper).

LIST NO. 1

```
100 Z = 17
110 PRINT CHR$(4);"PR£1"
120 PRINT:PRINT:PRINT
130 DIM A$(17),B$(17),H$(17)
140 A$(1) = "PRINCESS LEIA ORGANA"
150 A$(2) = "CHEWBACCA"
160 A$(3) = "LUKE SKYWALKER"
170 A$(4) = "SEE THREEPIO"
180 A$(5) = "ARTOO-DETOO"
190 A$(6) = "DARTH VADER"
200 A$(7) = "BOBA FETT"
210 A$(8) = "YODA"
220 A$(9) = "HAN SOLO"
230 A$(10) = "PLANETARIUM"
240 A$(11) = "MERCURY"
250 A$(12) = "VENUS"
260 A$(13) = "MARS"
270 A$(14) = "JUPITER"
280 A$(15) = "SATURN"
290 A$(16) = "EARTH"
```

```
300 A$(17) = "LANDO CALRISSIAN"
310 FOR I = 1 TO Z
320 H$(I) = A$(I)
330 NEXT I
340 FOR I = 1 TO Z
350 L = LEN (A$(I))
360 LX=L
370 FOR J = 1 TO LX - 1
380 R% = ( RND (1)*(L-1))+1
390 E$ = MID$ (A$(I),R%,1)
400 B$(I) = B$(I) + E$
410 IF R% = 1 THEN A$(I) = RIGHT$(A$(I),L-1):GOTO 440
430 A$(I) = LEFT$(A$(I),R%-1) + RIGHT$(A$(I),L-R%)
440 L = L - 1
450 NEXT J
460 B$(I) = B$(I) + A$(I)
470 PRINT " ";I; TAB(5);H$(I);TAB(28);B$(I)
480 NEXT I
500 PRINT CHR$(4);"PR£0"
```

LIST NO . 2

```
100 INPUT "ENTER NUMBER OF WORDS ";Z
130 DIM A$(Z), B$(Z), H$(Z)
140 FOR I = 1 TO Z
150 PRINT "ENTER WORD NUMBER ";I
151 PRINT:PRINT:PRINT
160 INPUT A$(I)
161 PA$= " "
162 A$(I) = A$(I) + PA$
163 PRINT A$(I)
190 NEXT
305 PRINT CHR$(4);"PR£1"
310 FOR I = 1 TO Z
320 H$(I) = A$(I)
330 NEXT I
340 FOR I = 1 TO Z
350 L = LEN(A$(I))
360 LX = L
370 FOR J = 1 TO LX - 1
380 R% = ( RND(1)*(L-1))+1
390 E$ = MID$(A$(I),R%,1)
400 B$(I) = B$(I) + E$
410 IF R% = 1 THEN A$(I) = RIGHT$ (A$(I),L-1):GOTO 440
430 A$(I) = LEFT$ (A$(I),R%-1) + RIGHT$ (A$(I),L-R%)
440 L = L - 1
450 NEXT J
451 IF A$(I) = " " THEN A$(I) = ""
460 B$(I) = B$(I) + A$(I)
470 PRINT " ";I; TAB(5);H$(I); TAB(28);B$(I)
480 NEXT I
500 PRINT CHR$(4);"PR£0"
```

As a matter of interest Paul's program included another line as follows :

```
420 IF R% = L THEN A%(I) = LEFT$ (A$(I),L-1):GOTO 440
```

I couldn't see any use for A% as it was the only place where it was mentioned and so have deleted the line, the program runs the same with or without it.

Tom Wright

DISC ZAPS AND ALL THAT (Part 3)
Recovering from disaster
by EWEN WANNOP

So far, I have not been waylaid or beaten up for daring to suggest that you tinker with the important data on your discs. I can only assume you all took my timely advice and made backups before you put any of your valuable discs into your drives.

I am going to deal with two subjects this time. Looking at files, and restoring a damaged catalog track. We are still dealing with DOS 3.3 discs (Prodos will come next time). Those of you who have the red DOS manual will find a great deal of useful information in Appendix C on how the disc is constructed. I will be using some of this information during the discussion.

However first to the files themselves. There are four basic file types under DOS 3.3, Integer, Applesoft, Binary and Text. Each type is constructed slightly differently, but all are pointed to in the same way by their Catalog entry. So to find where a file lies, first Catalog the disc with Disk Manager, and read off the Track/Sector list of that file. Enter the pair when prompted in the File T/S list option. You will now have a list of all the sectors of that file found in the list. If the file is long, and exceeds the 122 sectors possible in that list, there will be at least one other list. To find additional lists you will need to look at the first Track/Sector list with the Patch option. There you will find at offset $1-$2 a link track/sector pair. Make a note of all the pairs you find, they are in ascending order, with the first sector first. The tracks are listed to the left, the sectors to the right. Now enter the Patch option and call up the first sector of the file. We are now ready to examine and or change the contents of the file.

Text files are the simplest. They consist of ASCII characters with the hi-bit set, and unless they are random access files, are simply sequential entries delimited by a carriage return, $8D. The end of file marker is denoted by the first occurence of a zero byte. This may not be the last sector pointed to by the track/sector list, as DOS does not update the disc map if a file is subsequently written out to a shorter length. If the file is a random access file, then each record will finish with a carriage return as before, but there may be one or more zero bytes before the next record. In a random access file, you must look at all allocated sectors to see the full list of records. It is possible to have some records that are zered out completely.

The next types of file, are the Integer Basic and Applesoft files. These are both constructed in the same way with the first two bytes of the first sector denoting the length of the program. DOS uses these to know how much to load into memory. We start with actual data at the third byte. This is in a tokenised form, with the basic commands appearing not as ASCII, but as token values to represent them. If you have the Applesoft manual, then you will find a list of these tokens on page 121. It is thus possible to change them if you wish. However be careful, as the line numbers and pointers to each line are also present, and it may be difficult to work out what is what. It is probably more practical to simply change known values, rather than to tinker too much with a program. The kind of thing that is most useful here, is to enter a number of spaces in a REM statement before the actual description.

These will appear as the value $20 (the hi-bit is not set here), and could be changed to the backspace value of $08. On listing the program, the line number will be erased by the subsequent text being backspaced and printing over it.

Binary files are the last type of file. The first four bytes of the first sector are significant. The first two are the address the file was saved from and will be loaded to, and the second pair are the length of the saved file. In both cases, as is normal in machine code data, the first byte encountered is the low or least significant byte.

You may change the load address and make the file load somewhere else, though be wary, as if the file is a binary program, the file may not run at a new address if absolute addresses are referred to. A binary file can of course be both a program, or data, and can consist of data using all eight bits of the byte.

Now to restoring a damaged Catalog track. This is the most frequent cause of an apparently destroyed disc, and will cause the dreaded I/O ERROR on any form of disc access. You will have been unable to back-up this type of damaged disc with the normal COPYA, but if you type in my version of COPYA as printed in the April issue of Hardcore, you will be able to copy tracks $0-$10 and $12-$22 to a blank disc.

Copy $12-$22 first, with initialisation, and then $0-$10 without. Next copy using the Patch option of Disk Manager, all the sectors that you are able to read. There will have been at least one sector that was unreadable.

Depending on which sector is damaged you will need to correct as follows. If it is a sector higher than $1, then enter at offset $1 the value $11 and offset $2 the value of the next lower sector number. This marks the sector with the track/sector pair of the next catalog sector, and points DOS to the next sector.

All should now be well, and your disc should have been restored to its pristine condition.

If it is sector $1 then leave it zeroed out, as this marks the end of the catalog sectors. If it is sector $0, then you have a destroyed VTOC (Volume Table of Contents). It is beyond the scope of this article to describe the reconstruction of the disc map which is part of the VTOC sector, but we can restore the sector sufficiently so we can read the files. You must enter at offset $1 the value of $11, at offset $2 the value $0F, these are the pointers to the first sector of the catalog. At offset $3 the value $04, the DOS release number.

At offset $27 the value $7A, the maximum number of T/S pairs of a T/S list (122). Finally at offset $6 the volume number. This usually has the value of $FE (254), but may be other than this. It is not too important what it is for our purposes here, as you can set it later to the value displayed on a Catalog of the disc.

Having followed through all this, you will have restored the catalog track to a readable form, and the disc to apparently normal. However there will probably be one or more files that have been 'lost' together with their catalog entries.

You should now scan the disc with the FIND T/S SECTORS option, and make a note of all the lists found. Catalog the disc and make a note of all the T/S lists mentioned there. Eliminate all the found lists with those that already occur in the catalog, and look at those that remain with FILE T/S LIST.

If they seem to be valid lists, examine the first sector of each file pointed to, to see if you can recognise the file, or determine what type of file it is. Having done all this, and now covered sheets of paper with all your scribbles and all the data for the 'lost' files, we are ready to reconstruct the file entries.

A catalog entry consists of $23 bytes, and the first entry starts at offset $B from the start of the sector. Each additional entry starts $23 bytes on from the start of the previous one, with a maximum of seven file entries for each sector. Have a look at a 'good' sector if you are unclear about this.

Each entry is laid out in the following manner:

Byte $0 Track number of T/S list
$1 Sector number of T/S list
$2 File type = $00 = Text
$01 = Integer
$02 = Applesoft
$04 = Binary

$3 through $20 Filename in ASCII with hi bit set and padded with space

$21-$22 Sector count this is the number of T/S pairs found, low byte first

You should now have restored the catalog to normal, however, the disc map may not be up to date if you have restored a previously deleted file, or had a damaged VTOC sector. To preserve disc integrity, it is therefore necessary to initialise a fresh disc, and using FID, copy all the files to the new disc, using the wild card. All should now be well, and your disc should have been restored to its pristine condition.

Next issue, I will leave DOS 3.3 and describe the layout of a PRODOS disc. Later on I will look at PASCAL and CPM discs.

Good zapping .....

Humourous tales as told to me by an Irishman. (and he swears they are true).

Copy the disk regularly said the office manager, and keep in a safe place. So she did faithfully every night. Of course the inevitable happened, the program failed and the machine stopped. The engineer went to the safe to get the backup, only to find a pile of .... photocopies!!!!

"Remove the disks from the drives every night", so went the manual. Imagine the reaction from the manufacturer when they got a call from a gentleman who cannnot get the disk to fit back in again to his .... hard drive!!!!

It was a 'talkdown' situation over the 'phone with the office girl who has never run the computer before. "Take the disk out of its sleeve and put it in the disk drive" says the instructor. "It won't come out" she replies after a while. He explains it again. "Its no good I can't get it work" she says, "its all stuck down round the edges".

MINUTES OF AGM, APRIL 1986

Minutes of the Annual General Meeting of BASUG Ltd. held at Sandwell Training Association ITEC, Tildasley Street, West Bromwich, on Saturday 12th April, 1986.

The meeting was opened by Jim Panks, Chairman of BASUG Ltd., at 11.05 a.m., it having been established that a quorum was present.

1. Apologies for absence.
Apologies for absence were received from Richard Boyd.
2. Minutes of the last A.G.M.
Seth Proctor proposed and John Arnold seconded that the minutes of the previous Annual General Meeting held on Saturday 6th July 1985 be taken as read. This was carried unanimously.
3. Chairman's Report.
Welcome to the 5th Annual General Meeting of the British Apple System's User Group.

I would first of all like to thank William WATSON and the Mid-Apple group for organising the venue and to ITEC for allowing us to use their facilities.

Many members will ask why we should move the AGM location away from its previous venue in London. Well the committee felt that we should show that we are a truly a national group. Coming to the second city seems to be the right choice making it a central location for most of the country.

This AGM falls just ten months from the last one in 1984/5, and this means that this committee has been in office slightly shorter than normal. However in the past ten months we have strived to stabilise our past problems and put the club on a sound financial footing. The job has been hard, but with certain decisions that had already been made by the previous committee, and sheer hard work by this committee we have succeded in this major task.

With regard to the finances, I would like to express the gratitude of the committee to our treasurer Irene and to Sheila Hirst, who between them have done miracles. The difficulty in running, what is in effect a small company with voluntary help is massive. Without the devotion given by these two ladies I do not think the job could have been done.

Over this past year we have had tighten our belts and watch our every penny. With this in mind however, we still needed to improve on some of the areas that had been wanting for some time. Improvements have been made. However it has not been all a bed of roses, there have been some upsets in those areas where we felt that changes should be made.

A casualty was Courses. We tried to get expert help in this field as we felt that the amount of time that this particular service takes would be better given to some one that knew the job. We asked a member, Peter Dalton (a full time lecturer in computer related subjects), to take over the organisation and running of the courses. The idea was to offer to members, the same standard that business users would expect, for a more reasonable price. Alas after much planning and advertising, only three applications were received and it was felt that the membership, for the moment, did not want to support this valuable service. We have put courses on ice until some later date.

The next improvement we made, involves the only service that every member receives, namely Hardcore. The committee felt that we had to improve the magazine and more importantly also cut costs. However this was difficult because you cant usually make things better without increasing costs and as you will appreciate we did not have the extra cash to spend. We had to look closely at the way in which we produced Hardcore and find new alternatives that would increase the size, quality and content of Hardcore without any increase in the production costs. With the change of editorship, we took this opportunity to change the look of the magazine. The result is the 'new-look' Hardcore that you have all received for the past three issues. The quality has improved and with the help of the new Apple Technology and a very good litho printer we hope that the improvements will continue.

One of the services that we offer that is used by many non-members and is therefore a show window on the group is our BABBS Bulletin board run by Tony Game. This has recently undergone major improvements and is one of the most modern and up to date systems in the United Kingdom, however without the constant hard work of Tony this service would not be possible. BABBS has been running so far with very little from our funds. We hope that this situation will change in the coming year.

The Hotline is another service that is heavily used by the membership. We see it as an important part of the services that BASUG offers to the membership. Chris Williams has run this service for just over the last year and he not only improved it but became a life-line to many Apple Users with problems. Unfortunatley Chris had to give the Hotline up in December, and on behalf of the committee and members I would like to thank him for his hard work. Dave Ward now runs the service, and since January he has been busy sorting out your problems. Improvements are still being made and with the help of a panel of members Dave is providing a worthwhile service to you all.

The essence of BASUG is self-help, and this past year we have again seen members helping the majority. One prime example of this devotion to the common good, is Ivan Knesovitch. Ivan arranged the Apple Show 86 with almost fanatical involvement. He succeded in making March 1st a memorable day for all Apple Users and in particular BASUG members who were treated to a very full day of events in pleasant surroundings and company.

The past year has seen the growth of the Macintosh in this country, and we have seen an especially rapid increase over the past six months. Mac members are joining BASUG at a rate that has now overtaken the][members. We have therefore taken steps to ensure that all members get benefit from BASUG. We were unsuccesful in launching a seperate newsletter for Mac Users, and have now more correctly, incorporated this section in Hardcore. We will see this grow as more Mac Members join. However, I must add that we have no intention of seperating the two groups. Like Apple themselves, we see a long future for both machines. Hopefully as the membership rises we will be able to increase the size of Hardcore to allow extra editorial space for these areas, and of course any new machines that Apple spring on us.

The software library has finally been sorted out over the past year and now has a comprehensive selection of disks covering DOS, PRODOS, CPM and Pascal. Graham Attwood has worked extremly hard to improve the standards of the library and his patience and hard work have paid off. The Mac Library has also been enlarged and some of the public domain software we now have is quite outstanding.

The Special Release Software Library has been a great success. The idea that BASUG should distribute good quality software that otherwise may never come to light because of its perhaps limited interest, has helped many members obtain useful programs at a reasonable cost. Speedloader is a prime example of this. This area will be extended in the coming year, we hope that present negotiations with companies in the USA will bear fruit, and that we will be able to supply programs that are unobtainable in this country at the present time. Our aim is to provide a good service with reasonable costs.

Over the last few months we have been talking to Apple UK, and are forging a closer relationship with the staff there. This link can only improve our service to members. We hope also that this link will grow stronger and be mutually beneficial over the coming year. In March we were invited to send a representertive to the International Apple University Conference at Cambridge. I had the pleasure of representing BASUG at the Press Conference and put questions to Mr SCULLEY which I thought that all our members would be interested in. I also was able to present him with his personal copy of the April Hardcore. The news from Apple is good and you can read a full report of it in the June issue of Hardcore.

I believe that the last ten months has provided BASUG with a sound base to build on for the next year. The incoming committee will be in a position to plan ahead. BASUG is in a fit state to go forward, but its form depends on you the membership. BASUG is run by the most dedicated group of people that I have ever worked with, they deserve your support with which to go away and make the coming year a great year for Apple Users.

I would like to thank all those members that have contributed in one way or another over the last year. To those that have put in hours of hard work behind the scenes making BASUG a success. Also to all those that have contributed to Hardcore, and to all the Companies that have helped us by advertising during the past year. And finally to this committee, I would like to say Thank you on behalf of all the members, for the long unsocial hours spent around the committee table and for doing the hundred and one jobs that makes BASUG tick.

4. Secretary's Report.

The following changes to the Committee as elected at the last AGM had been notified to Companies House during the year. Very shortly after the last AGM, Peter Trinder decided that he could no longer give the time that he would wish to Committee activities and tendered his resignation, while making it clear that if he could help from time to time he would be glad to do so. The Committee regretfully accepted Peter's resignation and thanked him for the contribution he had made during the previous year. Tony Game also resigned from membership of the Committee in September 1985, while retaining his responsibility for the Bulletin Board.

It has been found necessary to register the main membership database of BASUG under the requirements of the Data Protection Act. This has been done and acknowledgement of the registration has been received.
However, there has been a great deal of confusion regarding the registration of relatively small and inoffensive databases such as those within BASUG, and the advice of the Legal Adviser to the Data Protection Registrar had been sought. In the light of his advice BASUG would shortly be registering the database used for administering the Force accounts. Tony Game had agreed to become Committee Member in charge of the Bulletin Board, with no other duties, and would be co-opted to that position by the new Committee in order to facilitate the registration of the Bulletin Board under the Data Protection Act in line with the advice received.

The level of membership within BASUG has remained reasonably steady during the year, and although many new Macintosh owners have joined, the overwhelming majority of members own variations on the Apple II range.

Little has changed during the year at the level of Local Groups. Most of them rely on the hard work and dedication of one or two members to keep them going. The only new group with which we are regularly in touch is the London Macintosh Group who have got off to an excellent start.

I would like to wholeheartedly endorse the Chairman's remarks about the dedication of the outgoing committee. Attendance at Committee Meetings has been high with five members clocking up 100% attendance, and a further two members missing only one meeting during the year. Tom Wright has unfortunately missed several meetings due to illness and we are glad to see him restored to health.

Two members of the present committee, Richard Boyd and William Watson, have decided that they will not stand for re-election. I would like to thank them for the contribution they have made to BASUG during their time on the committee.
Finally, I would like to thank the Chairman, not only for his willingness to 'put his shoulder to the wheel', but for his resilience, good humour, commonsense and

GIANT SPRING SALE!

Massive Reductions on Digitask own brand

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SHUTTLE MULTITASKING software Dark Star	£19.00
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PRESTEL Graphics ROM FOR Modem Card	£19.95
Mirco Soft Softcard II+/e 6MHz + 64K	£289.00
Digital Research CP/M Gold Card IIe 64K	£249.00
Digital Research CP/M Gold Card IIe 192K	£339.95
CP/M Module for IIc	£86.00
Grappler + Card	£84.95
Grappler + 16K Buffer	£149.95
CHAMPION Parallel Interface (with cable)	£45.00
CHAMPION + 16K Buffer (with cable)	£89.95
CHAMPION + 64K Buffer (with cable)	£125.95
CACHEBOX 64K Parallel inline Buffer	£125.95
SUPER Serial Card with manual	£99.95
CCS 7710A Asynchronous S/Interface	£89.95
DMS RGB Card (TTL output)	£75.00
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NEW EPROM controller/Parallel I/face	£32.00
EPROM Blower for 2716, 32, 32a, 64, 128, 26	£53.00
PROM Writer CARD BLOWS 74S472, 74S288	£159.95
CLOCK CARD (TIME II) CARD	£44.95
Wild Card Plus	£99.95
Integer Basic Card	£32.95
A/C Cooling Fan (clip on) with suppression	£24.95
SATURN/TITAN ACCELERATOR CARD II+	£269.00
SATURN/TITAN ACCELERATOR CARD IIe	£299.00
Cumana half height drive for Apple	£109.00
10MB Sider hard drive for Apple (includes controller, cables and software for	£775.00

Bruised Apples?

We realise there are a number of less than perfect Apple II's/II+'s/IIe's and IIc's out there, so we've decided to offer a checkout/repair service for mainboards on these computers.

	Checkout (with report)	Checkout & repair (inc. parts & labour)
Apple II	£29.00	£79.00
Apple II +	£29.00	£79.00
Apple IIe	£29.00	£79.00
Apple IIc	£25.00	£59.00

Carriage (both ways) add £15 anywhere in mainland UK. Checkout means the running of over 500 separate tests and production of a technician's service report. Repair means running all tests and replacing defective parts. We reserve the right to reject extreme cases and charge carriage only.

Turnaround normally less than 14 days. Send your mainboard or send the complete computer less peripheral cards together with a brief fault description.

Prices do not include VAT and carriage

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fairness, which have led to a greater degree of friendship and good spirit between committee members than we have known for some years, as shown by the fact that almost all of us can be found enjoying ourselves around the computers several hours after the end of committee meetings, even though long journeys have to be made across country afterwards.

5. Treasurer's Report.

Thanks to S Hirst and S Proctor, and to Committee for all their help and support during this year.

I was not on the Committee for the year 1984/5, but did perform an internal audit function on the records for the second half year, and have discussed various items with our auditors, Buzzacott & Co.

The accounts do show an improvement over previous years, but we still had not cleared the accumulated deficit by the end of the financial year.

The FORCE, as initiated by Richard Boyd made an impact on our income.

Many of the decisions taken will be more apparent in the next set of accounts you see. In particular, the change in Administrator, which took effect from April 1985.

The level of audit fees is high. The 1985 fee includes an additional charge of £1000 for the previous year, and reflect changes in systems and some consultancy fees. We now have a more stable situation and are able to complete more of the analysis work in-house which should reduce the fee in the coming year.

The Company's future looks promising. We have reviewed subscriptions, as requested. We have not changed the level of subscriptions, but have implemented a common renewal date of 1st January. This latter decision will reduce our income to 31st Decmeber 1986 by approx. £2500, but we are optimistic that we can absorb this shortfall.

H M Customs and Excise have reviewed the status of our subscriptions, making us liable for approx. £2500 back tax. We do not feel that this can be passed on to the membership in retrospect but we must include VAT in future subscriptions - this will add about £1 per annum to the individual subscription of £15.

Draft accounts for the first half-year to the end of December 1985 indicate a stronger position for the Company, and I am hopeful that the accumulated deficit will be removed by the end of the year.

Joe Cade suggested that an appeal should be made to the Commission for Customs and Excise with relation to the V.A.T. ruling in regard to subscriptions. The Treasurer answered that expert advice out of committee had already been taken.

Dave Ward suggested that Joe Cade be asked to look into the situation with reference to the V.A.T. ruling. Joe Cade asked the Treasurer about the source of the advice. Dave Ward also asked whether the number of hours worked by the editor and others were reflected in the calculations of the V.A.T. element of the subscription.

John Tracey asked if any advantage would be gained by splitting BASUG into two companies. The Treasurer was of the opinion that relative costs would be greater.

6. Adoption of the Accounts

After a brief discussion, William Watson proposed and Dave Ward seconded that the accounts be adopted. The proposal was carried unanimously.

The outgoing committee resigned at this point.

7. Election of Officers and other members of the Committee.

Norah Arnold was asked to read out the necessary information, which was as follows:-

Two members of the previous committee, William Watson and Richard Boyd, were not standing for re-election. Thanks were due to both for the work they had put in over past months.

Nominations received were:-

Chairman - Jim Panks.
Secretary - Norah Arnold.
Treasurer - Irene Flaxman.
Committee - Keith Chamberlain, Ewen Wannop, Graham Attwood, Tom Wright, Nicholas Hunter.

Norah Arnold stated that it was the intention of those listed above, if elected, to co-opt Ivan Knezovich to the committee, as his nomination was received too late to be included in the normal manner.

Harry Gardiner proposed the acceptance of all the nominations for the officers and committee. Dave Ward seconded and the proposal was carried unanimously.

8. Any Other Business.

a. Thanks.

Ewen Wannop wished to thank Tony Game for the excellent job he had done during the year. Although Tony has had technical problems recently, BABBS had the most up to date software of any Bulletin Board in the country. In the future Tony would be running the Force, together with John Lee. Ewen thanked Tony on behalf of the Committee.

Joe Cade asked whether Tony Game was paid for his work with BABBS. Ewen Wannop replied that no-one working for BASUG other than the administrator, was paid for their services. Michael O'Shaughnessy asked if there was any way members could help Tony, and Ewen replied that Tony would like someone to help with the Mac area of BABBS.

Ivan Knezovich then stated that he would be setting up a Mac bulletin board shortly. Ivan then continued to say that the Apple Show 86 held at the West Midlands Safari Park, Bewdley, on Saturday 1st March 1986, had made a slight profit and in view of this he wished to make the following donations:- £80 to BASUG, £10 to MacTel, £10 to MidApple, and £10 to the U.S.A.F. Group. Amidst applause, Ivan then handed the Treasurer a cheque for £80 which was gratefully received.

b. Hardcore.

Ewen Wannop stated that Apple Computer (UK) had made a firm commitment to advertise in Hardcore. The Committee input to Hardcore was high and more input from members was needed. Jim Panks pointed out how valuable a question from a member could be if submitted to Hardcore, as it often triggered off an interesting response from others. Articles were best submitted on disk or via the Force. As Hardcore was archived on disk, the editor was considering a 'best of Hardcore' project.

William Watson then thanked Jim Panks for the tremendous amount of work he had put in as editor of Hardcore, which was appreciated by all the members. William would continue his support of BASUG although he was not a committee member.

Dave Ward was of the opinion that dealers were impressed with the appearance of Hardcore. Ivan Knezovich thought that an application form should be included with Hardcore from time to time so that members could recruit others to join.

c. Relationship with Apple Computer (UK).

Dave Ward enquired as to whether, in view of Apple Computer (UK)'s past lack of interest in user groups, we were not in danger of treating them as a deity now that their attitude had changed. Ewen Wannop then gave a resume of BASUG's new relationship with Apple Computer (UK). Several suggestions had been made as to how Apple might help BASUG, and in fact they had been most helpful over the failure of Tony Game's equipment for the Bulletin Board. Apple had already shown a degree of commitment by their presence at Apple Show 86, which had been much appreciated by members. The committee were hoping to develop the relationship in the future. Dave Ward then asked that the committee should keep the members fully informed.

d. Macintosh

Dave Ward said that he was pleased to see the Macintosh section in Hardcore and he enjoyed reading it, even though he did not have a Mac. Ewen Wannop reaffirmed the Committee's support of all Apple machines. Ivan Knezovich wished to see the Macintosh section in Hardcore expand. John Tracey asked if the Committee were in touch with other national user groups and there was a short discussion of future plans.

Dave Ward stated that he was pleased that the A.G.M. had been held at MidApple and he approved of the idea that the A.G.M. should not always be held in London.

There being no further business the meeting closed at 12.27 pm

AGM Workshop

The AGM Workshop was an outstanding success with some demonstrations and a general forum for swapping information and techniques.

We were glad to see our old friend Bob Sather of Dark Star fame once again. Bob gave us all an insight into the latest Dark Star releases and also joined in the general information swapping session.

Dave Ward gave an interesting forty five minutes on the uses of the FLIPPER card. Reading about it in Hardcore was one thing, watching it in action was another.

The best selling Special Release Software 'Speed Loader" was given a run with Ewen Wannop at the controls. Those that had never seen it perform were impressed with the sheer versatility of this utility.

To wrap the day up it was the turn of the mighty Mac Plus linked to HD20 and Laserwriter and running Pagemaker to show the assembled crowd how your journal gets to the printer. Celtip ensured that the equipment was available at a moments notice and that just shows what a bunch of nice guys they are up in Kidderminster. Cheers Derry.

The MIDAPPLE group did a great job in the organisation department - ensuring that everything went smoothly and that plenty of coffee was available. Thanks to William and gang.

RAMWORKS & Z-RAM FOR APPLEWORKS

"In a competition called '640K vs. 640K' (at San Jose), AppleWorks on a RamWorks-equipped //e outperformed Symphony running on an IBM PC" ..... Infoworld

"AppleWorks wiped out Symphony" .....San Jose Business Journal.

"As it turned out it was no contest". .....Apple User

Here's how **RAMWORKS** (and **Z-RAM**) **make AppleWorks even more powerful:**

Only **RAMWORKS** and **Z-RAM** can do the following:
Expand the number of records in the database to over 15,000
Expand the word processor to over 15,000 lines
Expand the desktop to 1800K (2.5 Meg RamWorks) (343K with a 512K RamWorks -which is enough to 'wipe out Symphony").
Segement files automatically on to multiple disks - so you can store files greater than your floppy disk capacity.
Provide built in printer buffer (//c or Super Serial Card for //e)
Expand ALL versions of AppleWorks. (1.0, 1.1, 1.2 & 1.3)
Simultaneously autoload (Ramdisks) AppleWorks into R.A.M. - to eliminate slow disk - access.

RAMWORKS plugs into the Auxiliary Slot 3 of the //e and replaces the 80 column card. (It is totally compatible with ALL //e software).

Z-RAM fits inside the //c - it takes 20-30 minutes to open the //c and install it (no soldering). Z-RAM also gives you CP/M and is totally compatable with all //c software.

Both RAMWORKS and Z-RAM include AppleWorks Expander software plus RamDrive software for ProDos and DOS 3.3. Z-RAM also includes CP/AM + Ramdrive software for Pascal & CP/M

RAMWORKS	Z-RAM
256K ...£219.00 + v.a.t.	256K ... £359.00 + v.a.t.
512K ...£269.00 + v.a.t.	512K ... £419.00 + v.a.t.
1Meg...£369.00 + v.a.t.	
2.5 Meg....P.O.A.	Apple //c fitted with 512K Z-RAM
RGB Option £129.00 + v.a.t.	£899.00 + v.a.t.

TIMEMASTER H.O.

TIMEMASTER H.O. is probably the most powerful clock available for the Apple //e (&][+) and functions automatically with expanded AppleWorks.
Features include:

Total ProDos compatibility; millisecond capability, 8 interupts; displays time & date on AppleWorks screen (plus auto time/date entry into AppleWorks database); 20-year rechargeable Ni-Cad battery; emulates other clocks (inc brands M.T, A&P); totally RAMWORKS and expanded-AppleWorks Compatible.

Plus, for programmers, TimeMaster includes extension commands for ProDos - adds 15 new time and interrupt commands to Applesoft.

..... £129.00

SYSTEM CLOCK //c

External Clock for //c with pass-through serial port (you don't lose a port). Has all the expanded-AppleWorks functions of TimeMaster. Uses replaceable batteries. Totally Z-RAM compatible.

.....£79.00

TRANSWARP ACCELERATOR

TRANSWARP is an accelerator with a difference:
Standard Features: Runs software up to 3 1/2 times faster; software transparent so no pre-boot is required; slots can be switched out; can be deactivated with a key-press on boot-up; works on][+ and //e.
Extra Features: **TRANSWARP** carries 256K of extra fast RAM (others 64-80K) so can accelerate up to 256K of memory without giving the problems caused by caching techniques.
TRANSWARP is the only accelerator to speed-up programs residing in AUXILIARY memory as well as main memory and ROM. With more and more programs residing in auxiliary memory it takes less and less sense to buy an ordinary accelerator

....£279.00

INTEGRATED COMMUNICATIONS for APPLEWORKS with PINPOINT

ADD COMMUNICATIONS PLUS DESK-TOP ACCESSORIES TO APPLEWORKS WITH PINPOINT

PINPOINT provides communications with electronic mail/telex services such as One-to-One, Telecom Gold and EasyLink and also most bulletin boards (not Prestel or Viewdata) from within AppleWorks and is as easy to use as AppleWorks itself.

PINPOINT is co-resident with AppleWorks and messages can be created and edited using AppleWorks. Files can be transmitted with a single key-press and messages can be down-loaded directly into a word processor file for editing - all without quitting AppleWorks.

(Technical Spec: 300 or 1200 baud; full or half duplex; supports Super Serial Card (//e) and //c)

PLUS ALL THESE EXTRA FUNCTIONS:

As well as providing communications, **PINPOINT** functions as an excellent desktop accesory for AppleWorks. **PINPOINT** provides the usual functions of **calculator, appointment diary/calendar, phone-dialer** and **note pad**. It also enables your Apple to function as a **typewriter** and has a brilliantly simple method of putting a single address on a single envelope. Finally, **PINPOINT** will also **merge graphics and text** (Graphics from Mousepaint or DazzleDraw and text from AppleWorks Word Processor).

PINPOINT is fully compatible with **RAMWORKS** and **Z-RAM**.
The RAM Enhancement Kit enables **PINPOINT** to be loaded into **RAMWORKS** or **Z-RAM** together with expanded AppleWorks or other application programs for instant access. (Can also load into Apple memory card).

PINPOINT requires a //c or Enhanced //e with at least 128k of RAM.

PINPOINT.....£69.00 + v.a.t.
RAM Enhancement Kit.....£19.00 + v.a.t.
(This is NOT the //e Enhancement kit)

512K RAMWORKS + Pinpoint + RAM Enhancement Kit	£319.00 + v.a.t.
512K Z-RAM + PINPOINT + RAM Enhancement Kit	£469.00 + v.a.t.
DazzleDraw	£69.00 + v.a.t.
One to one Registration Fee (Normally £50)	£29.00 + v.a.t.

OTHER PRODUCTS

GRAPHWORKS _____ £79.00 + v.a.t.
Provides business graphics for AppleWorks. Graphs directly from the AppleWorks spreadsheet and although limited in functions it is easy to use. Graphs types are Pie, Bar, Stacked-Bar and Line.)

Simple Mail-Merge for AppleWorks _____ £29.00 + v.a.t.
(Easy to use, limited features, designed for mailing standard letters

AppleWorks + Simple Mail Merge _____ £169.00 + v.a.t.
AppleWorks + Pinpoint _____ £219.00 + v.a.t.
AppleWorks + GraphWorks _____ £219.00 + v.a.t.

z-80 PLUS (Hardware & Software) _____ £139.00 + v.a.t.

Dark Star Shuttle (Hardware & Software) _____ £115.00 + v.a.t.
With RamWorks enables you to really 'flip' between programs and operating systems - including copy-protected and otherwise 'immovable' programs that other cards can't handle - without the need to start the program from scratch, you can resume where you left-off.)

Shuttle + 512K RamWorks _____ £369.00 + v.a.t.

ORDERING INFORMATION

Add £1.00 P & P per order. Add V.A.T. at 15%

ALL PRODUCTS CARRY A TEN-DAY NO-QUIBBLE "MONEY BACK IF NOT DELIGHTED" OFFER

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Software Library News
by Graham Attwood

New Library Section - AppleWorks.

Well not much has come in this month, however I am busy getting some stuff ready from a disk of AppleWorks programs and tips. These disks come from the AppleWorks User Group in the States.

If you are interested in AppleWorks you may wish to order the first two in this new series. They are numbered A001 & A002. The contents are a mixed bag of WP, Spreadsheet and Database files and tips.

New CP/M Disks on the way.

Work is in hand to release some more CP/M disks, this is at early stage so I can not give any firm details yet - watch this space for details. If you have any CP/M Public Domain Software that is not already on our disks, why not drop me a line. If you send a disk you will receive a disk full of other PD software in exchange.

Some excitment from the USA

If you are interested in a new, fresh approach to programming environments then read PCW June 86 page 77 and see how Mr Raskin a very clever computer wiz-kid has redifined the whole process of user interaction with the computer. (It has been developed on an Apple //e).

The FORCE manual on disk

As The FORCE now has no joining fee you will need to purchase the manual seperately. This is now provide on disk for you to print yourself. The disk comes in two versions, one under DOS 3.3 the other under CP/M 2.0. This manual is more comprehensive than the supplied Guide to Telecom Gold and is a necessity if you wish to get the most from using this service. Both disks cost the same, just £5.00 inclusive of VAT & Postage.

The disk numbers are:

D108 for DOS 3.3
C030 for CP/M

Order them in the same manner as any Software Library Disk from the P.O.Box.

Well I look forward to communicating with you all again in August. You never know what will happen between now and then !!!!

Letter to the Editor - Oops

Dear Editor, Hawkhurst, Kent

The new version of 'Hardcore' looks fine, and the contents of the february edition were particularly interesting, especially Dave Ward's article on getting AppleWorks up on Flipper. I tried it, and it worked !! But there was a printing error in para 7>; it should read "Enter [/APPLEWORKS/=] and..." and not [/APPLEWORKS=] and...". Since the instructions have to be followed exactly, the omission of the "/" made me stumble a bit.

I loaded AppleWorks 1.2 very successfully in this way, but had problems with AppleWorks 1.3. These turned out to be an incompatibility between Flipper and this latest version of that program; when I rang the makers about it they offered to upgrade the card for me, and now it seems fine.

Can one take up Dave's offer to include Flipper set-up instructions for other packages in future? 'Think Tank' for example?

May I also thank Ivan Knezovich for organizing the Apple Show in Bewdley. It was a bit of a journey, and a lot of Macs for a mere IIe feller, but very interesting all the same - thanks a lot Ivan.

Keep up the good work. Mike Worth

MacChat June 1986

Edited by Norah Arnold

Which Disks?

Sony come out on top.

During the last two years or so the Macintosh User Group of Berkeley University, California, have co-ordinated a large scale review of 3.5" floppy disks available for the Macintosh. When the first results of their survey were published in Spring 1985, they were deluged with calls from bulk purchasers and from every one of the manufacturers whose disks they had mentioned.

In their initial published ratings disks made by Sony came out the clear winners with an approximate problem rate of 1 in 2000. Maxell disks were rated second with an approximate problem rate of 1 in 1000. Several other brands came out less than well with the approximate problem rate going up to 1 in 30 and even in the case of one brand, 1 in 10. One manufacturer, BASF, even went to the length of modifying their manufacturing process in the light of the report and have actively tried to demonstrate that they have improved the reliability of their disks.

In the months since the first report was issued the Berkeley group have continued their floppy disk review project and have slightly changed their views about the relative quality of the different brands. The name of the brand rated best of all has not changed, however, as it is still Sony. The rating of Maxell disks was lowered because it was found that they wore the heads of machines used for disk-duplicating at a far higher rate than did other brands such as Sony or Fujitsu.

Owing to the high level of interest shown in their results, plans are now afoot to objectively evaluate the quality of all the brands of 3.5" floppy disks now on the market. The results of these new tests should be available shortly.

In view of the above, BASUG have switched to selling Sony 3.5" disks; see your order form for details.

SS Disks in DS Drives

Now that many people have purchased 800K drives there has been much musing over the question of whether or not one can get away with using single-sided (SS) disks in the 800K drives just as if they were double-sided (DS), by initializing and saving data on the uncertified side of the disk. The question has been raised as to whether or not the uncertified side of single-sided disks is actually polished. If it is not, then using a single-sided disk as if it were double-sided may cause premature wear on the disk head attempting to read from the unpolished side.

It has been said that Apple do not recommend using single-sided disks as double-sided in their 800K drives. However, their 800K drives do allow reading single sided disks, so it would appear that their primary concern is probably over the fact that the second side is not certified and this being so, may result in a greater and perhaps unacceptable level of unreliability on some disks.

A second point of view which has been put forward is that as far as most of the major brands are concerned, both sides of the disk are polished because all the disks start off being made double-sided, double density. If one side comes out better than the other they are reduced to being single-sided and so it goes on. Some even maintain that since the manufacturers sell far more single-sided disks than double-sided, they do not even attempt to check more than one side before packaging what should have been double-sided, double density disks as single-sided and sending them off for distribution. In other words they imply that the manufacturer does not in fact know, when making the media, which side will end up facing the head, so both sides are made to the same specification.

Many users who have had their Macintosh™ for some time have amassed a large amount of software on single-sided disks. Some have been purchased as applications on protected disks and it may never be a practical proposition to attempt to use those as double sided. Many are used for the storage of data or for files not needed frequently and again, these will probably remain as single-sided.

But what about new purchases? Many people may try to get away with using Sony single-sided disks as if they were double-sided. If the programs etc. which are put on them are backed up and it would cause no aggravation to lose them, then why not save money by using the single-sided? However, if the data on the disk is worth its weight in gold to you, then don't economise, go for double-sided and play safe.

Could this happen here?

A member of BASUG sent in this file which he had downloaded directly from Usenet. As several BASUG members have had similar problems in obtaining upgrades we thought we would let the letter below say it all for us.

Date: Mon, 24-Feb-86 17:27:32 GMT From: urban@spp2.UUCP Subject: MacTerminal 2.0 Horror Story

A friend of mine has sent the following letter to Apple. I thought it might be of interest to others, so here it is: (reproduced with permission, but with the customer name deleted)

February 20, 1986 Apple Computer, Inc.
Customer Service Department
20525 Mariani Avenue Cupertino, California 95014

Dear Sirs,
Please take the time to read this letter. I spent a good deal of time writing it. I'll begin up-front by saying I am not happy with your software upgrade procedures. The story below will hopefully give you an impression why.

Enclosed you will find copies of all the paperwork I have accumulated over the past year regarding my MacTerminal 1.1 purchase. I will admit that the inclusion of some of it is superfluous to my problem. It is all enclosed for completeness. The nature of my problem is your manner of providing me with my "free" 2.0 upgrade.

Please re-read your letter to me of June 10, 1985. It says that (1) MacTerminal 2.0 would be released in the Fall of 1985; (2) That it would be available from my Apple Authorized Dealer; and (3) That you would tell my dealer when it would be available.

It is now Winter 1986 and the dealer that I purchased MacTerminal from does not have it. I did get a copy of Version 2.0 from another dealer, but that was like pulling teeth.

The following is a detail of my ordeal:
September 1985. Since none of the Apple Authorized Dealers I ever visited knew anything about your shipping date, I called your Customer Service Department at (408) 996-1010 to inquire. I was told you had no idea.

December 1985. I called your Customer Service Department again. I was told it would be out very soon.

January 1985. Associates of mine told me at a meeting that they had aquired Version 2.0.

January 1985. I visited an Apple Authorized Dealer in Glendale and was told that since I didn't by my computer from him, I would have to pay an unspecified charge for the upgrade.

February 1985. I visited two Apple Authorized Dealers in Pasadena. One told me that their Apple Sales person was off that day and I would have to return for my upgrade. The second--the store that originally sold me MacTerminal--wasted more than half an hour of my time shuffling the papers and opening "MacTerminal" boxes looking for one that said "2.0" on the disk. (I did not return to the store that originally sold me my Macintosh because they went bankrupt six months ago.)

I called your customer service department to complain about my difficulty. I was told the following: (1) The store that wanted to charge me was wrong to do that--and I was given the phone number of their corporate headquarters; (2) I might consider returning to the store who's Apple Salesmen was off-duty when he was on-duty; and (3) The store that couldn't find the upgrade should have received their upgrade in December with their "AppleGram".

I chose to call the corporate headquarters of the computer store that refused the upgrade because they were the only dealer that actually admitted to possessing the upgrade. I got action the same day--both an appology from the corporate headquarters and from the store's sale's manager. I visited the store and left an original MacTerminal disk with them. I returned the next day for the upgraded disk.

Now let me contrast the situation by describing how I got my Microsoft File 1.02 upgrade: I was sent a letter announcing the availability of the upgrade. The letter was accompanied by an order form requesting $10 plus tax. I filled out the form, wrote a check and mailed them together. Two weeks later, United Parcel Service delivered two disks containing the new version.

I realize your upgrade is "free". But the disks provided by Microsoft, if blank, are worth at least $5 at retail. The upgrade required no long distance phone calls to their customer service department. It required no long distance phone calls to a distributor's corporate headquarters. Rather than requiring five trips to individual computer stores, it required just one visit to a mail box.

Please consider changing your method of distributing software upgrades. And please answer this letter as soon as possible. I would like to know what you feel about the trouble I went through to get my MacTerminal 2.0 upgrade and what you will do to prevent a similar hassle from happening to me and the rest of your customers again.
Yours very truly, (name withheld)

Future Macs on a Cray

The following announcement was released to the American press:

Cray Research, Inc. have announced that Apple Computer, Inc. has ordered a CRAY X-MP/48 supercomputer. The system is valued at approximately $14.5 million and will be installed in the second quarter of 1986 at Apple's headquarters in Cupertino, Calif. The system will be used to simulate future hardware and software architectures and to accelerate new product development.

"In order for us to remain a technology leader in the personal computer industry, we must be willing to make significant investments in research and development," said Delbert WÆ Yocam, Apple's executive vice president of product operation. "With the CRAY X-MP supercomputer and its powerful simulation capabilities, we will be able to evaluate a greater variety of future product direction."

Apple Computer designs, manufactures and markets personal computers and related software and accessories for use in business, education and the home. Cray Research is engaged in the design, development and manufacture of large-scale computer and the marketing and support of such systems.

Colour Mac?

An article appearing in Electronic Engineering Times last year has fuelled rumours that there are two new Macintosh-line products in the process of development.

According to the article, one of the products, codenamed Jonathan, will be Apple's entry into the engineering workstation market. It will have a larger, possibly 14-inch, monochrome screen with a greater number of pixels in each direction. It will have eleven megabytes of memory, which may be upgraded to sixteen megabytes. The processor chip will be a 68020, probably with a 68881 math coprocessor chip, or at least a socket into which one could be placed. The machine will be offered with a 20-megabyte internal hard disk as an option It will have expansion slots, possibly VMEbus standard. Its physical footprint is thought to be somewhat larger than the existing Macintosh, but not a great deal. The rumoured announcement date is late summer or Autumn 1986.

The second product, which has been referred to as the Modular Mac or on occasions, the Colour Mac, is thought to be codenamed Jason. It may be announced sometime around January 1987. It will provide a colour screen of about the same size as that of the Macintosh. Rumoured to be a compact machine of about the same size as the Macintosh, it will provide an architecture fairly similar to that of the Mac Plus with a SCSI port and limited expansion capability. It is thought that the biggest factor controlling its release date is the availability of colour monitors that can handle the necessary bandwidth, presupposing that Apple doesn't want to risk the sort of criticism that Commodore has been taking regarding the Amiga's high-resolution colour mode. The Amiga is very difficult to use for word processing because it uses a standard NTSC framing signal, so high-resolution colour tends to suffer from interlace flicker.
All the above is rumour; we have no evidence to support any of it, but you never know.....

Question.....?

Will Apple introduce a hard disk which will connect to the SCSI port of the Mac Plus and the next generation Apple // machines? Rumour has it that they will and it will supposedly be six or seven times faster than the current Apple Hard Disk 20, and may be coming from Apple "in the next few months."
Although we have absolutely no hard facts to go on, let's hope Apple does introduce its new hard disk, as it may force independent developers to lower the prices of their own SCSI port drives.

Truncated Version of Inside Macintosh™.

I was quite pleased to find a copy of the Addison Wesley three volume version of 'Inside Macintosh'. However I ended up buying only Volume III, which is the very handy 'summary' section. One of the main reasons for my not purchasing the other two, apart from the price, was that stuffed inside one volume was a looseleaf page containing a page of the File Manager which they inadvertently forgot to print! Since then I have also been told that some people who ordered the hardcover version have discovered that the index at the end of the book is not complete, ending in the middle of the 't' section.

Customising 5.0 Finders

Apparently the new finders have a new resource in them called LAYO which we have been told stands for Layout. Also the newest version of ResEdit has a template for LAYO's enabling you to customise the layout of your finder. One of the things this enables you to do is to set Icon grid phase for say, a staggered grid, which means that when you 'Clean Up' the icons can be closer together but staggered so the text of the application names doesn't overlap. However, when you customise the grid phase to a vertical phase of 32, using 'Clean Up' becomes very erratic, occasionally working, but more often than not hanging. If you must have staggered icons, one answer is to choose a vertical phase of 16, which from all reports, appears to work satisfactorily.

Entirely Macintosh

P & P Micro Distributors has published the second version of its Macintosh product catalogue "Entirely Macintosh". This particular issue contains detailed descriptions of almost 100 products to enhance the Macintosh™ computer.

The product descriptions are arranged in alphabetical order by manufacturer and cover a most comprehensive selection of Macintosh software, peripherals and add-ons.

The catalogue is free and is available now, by contacting Michelle Smith on 0706 217744 or from any branch of P & P.

Compatibility

From all accounts some programs are having to be modified in order to work in a HFS environment on a Macintosh™ Plus. In most cases the problems are connected to failure to adhere to Apple's hardware independence guidelines. More use should have been made of the low-memory pointers provided by Apple Computer Inc. in order to avoid just the type of problem that has now arisen. In future developers should adhere to the published interface recommendations in programming their applications.

Here is a list of some of the programs which we understand DO WORK:-
Mac3D, Home Accountant, MacTracks, Cap'n Magneto, Concertware 2.0 (Instruments must be placed in ROOT), Megaroids - reported by some as working, others as not, ULTIMA III, BackGammon, BlackBox, Brickles 4.0, Earthplot, HangMan, Loderunner, MacBugs! MacLuff, Reversi, Solitaire, ThinkAhead+ 1.0. Pagemaker 1.1 works, but there are a few small problems which are being put right in the new version.

These programs are reported NOT TO WORK:-
Dungeon of Doom V1.0 or 3.0, (2.0 ok), Chipwits (MFS fmt disk), Daleks, Banzai! (Problems firing), Billiard Parlour (Sound problems), Spacewar! Wave15, Dollars & Sense, Ultima II, Copy 2 Mac (All versions 4.0 and above).

Any more information on this subject will be welcomed, both from users and developers, as there is a great deal of confusion, with some programs being reported as both 'working' and 'not working'.

Making Multiplan British

by Nick Helm

Fed up with Dollars when you want Pounds on your spreadsheets? This is how to eliminate the dollar.

The process is fairly straightforward if you aren't too daunted by playing about with system and application files. If you are, the only way to overcome it is to try it out and see what happens. As long as you do this to a backup copy of Multiplan rather than you original disc you won't come to any harm.

The method involves editing the font used by Multiplan so that it prints a £ instead of a $ and also changing the Format Menu from Dollar, to Pound. I used ResEdit to do the whole job, but you can manage the process with REdit, and Font/DA Mover or with Font/DA Mover, MenuEdit and Font Editor or FONTastic.

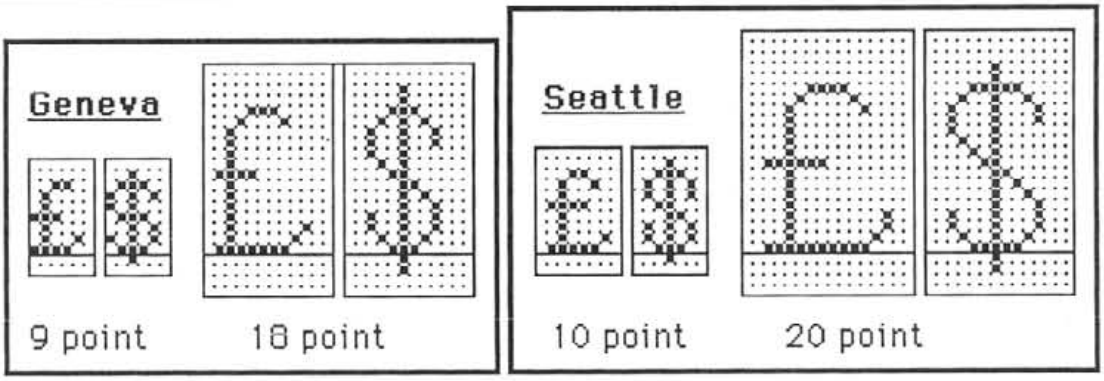
Font Moving

In order that the font you change is **only** used by Multiplan, first move the font used by it to within Multiplan so that it will be used instead of the one in the System File. To do this using **ResEdit**, open the *System* file and the *Font* resource and then select the fonts that Multiplan uses. This will be Seattle 10 &20 (or Geneva 9 &18 if you like to squeeze more onto the screen). Having selected this **Copy** it. Close up the *System* and then open *Multiplan*. **Paste** the font into *Multiplan*. You will see that a FONT resource is added to to the *Multiplan* resources. Close up and make sure you answer YES to "Do you want to save Multiplan?"

It may be a bit easier to use *Font/DA Mover*. If you hold the Option Key down when you select the Open button, you can open up any application to move fonts to and fro. Open up *Multiplan* in the one window and *System* in the other. Select the fonts to be moved from the *System* and copy it over to *Multiplan*. Then **Quit**.

Font Editing

The next stage simply involves editing the $ sign in the fonts so that it has the dot pattern of the £ sign, see diagram below and changing the £ sign to a $ so that you can still use the $ if desperate. This can be done with **ResEdit** by opening up *Multiplan*, the *Font* Resource and then the relevant fonts. Press the Dollar key and the bit pattern can be editted as if in FatBits. Then press the Pound keyand edit that. Make sure that you edit the patterns from both the font that is normally used by Multiplan, as well as the double sized version of the font so that this works for both standard and high quality printing.



Bit Patterns of £ and $ for Geneva and Seattle Fonts.

Menu Editing

The next thing to do is to alter the Format menu so that instead of the "Dollar" item you have "Pound". ResEdit, REdit, or MenuEdit all enable you to do this. The menu you need to open is ID=260, the Format Menu. Simply select the word 'Dollar' and type over with 'Pound'.

You will, having saved these changes have a **British** version of Multiplan.

Warning!

Do not place an external speaker too close to your disk drive. Its magnetic field may cause problems with your data on disk. This is particularly important as users begin to attach speakers for such applications as MusicWorks, Concertware and SmoothTalker.

Don't forget easy printing.

Don't forget that you can print your documents or pictures directly from the desktop. 1. Select the item, or items, that you want printed. 2. Choose the Print option from the File menu. 3. Select the appropriate settings (they'll be the same if you have chosen to print several documents).

The MacSerious Top Ten
(April 1986)

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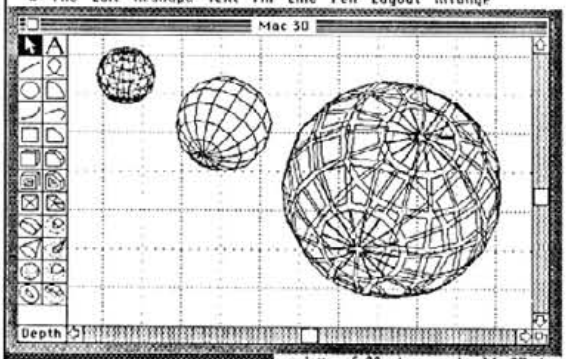
File Edit Reshape Text Fill Line Pen Layout Arrange



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professional font editor available for the Mac today. When your design is ready, it can be printed on the LaserWriter, or any PostScript™ compatable device. Maximise your LaserWriter power. Bitmap are made auto-matically, and can be fine-tuned with the enclosed copy of FONTastic (also available on it's own)
Fontographer: £375.00
FONTastic: £44.95

MORE WORDS FROM OUR BOSS: We've tried to make it a bit more readable: but the trouble is we keep getting more & more good programs we want to tell you about. Please help support alternative advertising by buying all your software from MacSerious Software.

HOT SHOTS
Here's what's good & new

Paragenesis D
- an electronic design software system with Schematic Entry (£775.00) and Digital MacroScope (£1050.00). This is a top-end profess-ional system, expanding soon with an Auto-Router module, and other facil-ities making this the most powerful system of it's kind on any micro.

EZ-Draft D
- the first fully professional CAD system for the Mac, EZ-Draft is significantly more powerful than any other CAD systems available on micros, and ideal for all types engineeringing & architectural drawings and technical illustrations. Cost is around **£2,000.00** Optional EZ-CAM completes the system. Please call for full details.

TML Pascal at £90.00 is too
cheap. We could be selling it for 2 or 3 times the price. This amazing system will compile BOTH Lisa - & MacIntosh-Pascal, permitting the creation of stand-alone, double-clickable applications, and desk accessories.
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HALLEY'S COMET IN HISTORY

The British Museum program 'The Babylonian Astronomers and their observations of Halley's Comet' is now available to members as part of the MacSig Disk Library. This computer program was developed by Christopher Walker of the British Museum, André Jay of XAT Ltd., (Birmingham) and Bruce Marquart of Ashton Tate (UK) Ltd. We are grateful to Christopher Walker, who is a member of BASUG, for this donation to the library.

Christopher Walker writes:-

"This program, which runs for 9 minutes illustrates the three recently identified Babylonian texts which describe observations of Halley's Comet in 164 and 87 BC, gives a brief account of the background of the texts, and explains a variety of additional Babylonian astronomical observations. The Babylonian tablets were included in an exhibition entitled 'Halley's Comet in History' at the British Museum, which was on view from November 7th 1985 to May 4th 1986.

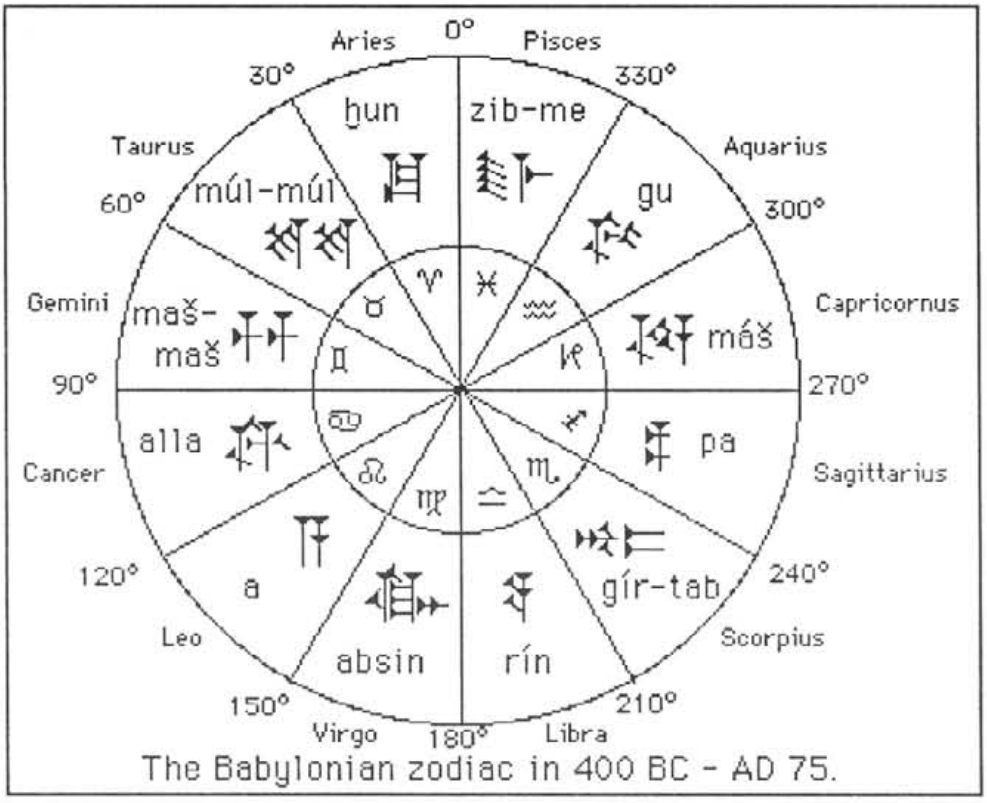
The program used is the Slide Show Magician version 1.3 from Magnum Software, Chatsworth, California. Star pictures and cuneiform text screens were created using the program Filevision from Telos Software Products, Santa Monica, California.

The fonts for writing Babylonian cuneiform texts, Greek, zodiac signs, and transliterations of cuneiform texts into Roman script were created by Christopher Walker with advice from Peter Trinder, using the Apple Font Editor and the program Fontastic version 2.0 from Altsys Corporation, Plane, Texas.

The star pictures of Halley's Comet in 164 BC and a lunar eclipse observation in 163 BC are based on diagrams produced at Durham University by Kevin Yau using a mainframe computer. Other star pictures are based on a program for calculating star positions in antiquity written in Microsoft Basic version 2.0 by Christopher Walker with advice from Kevin Yau.

The original discovery that Babylonian tablets record Halley's Comet was published by F. R. Stephenson (Durham University), K. K. C. Yau (Durham University), and H. Hunger (Vienna University) in the scientific journal Nature, vol. 314 (April 1985), 587-592. A more extensive account of the Babylonian texts and their background and of the Chinese observations of the comet is given in the exhibition handbook 'Halley's Comet in History', edited by F. R. Stephenson and C. B. F. Walker, published by British Museum Publications Ltd., 46 Bloomsbury Street, London WC1B 3QQ (price £5.50 net in the UK); ISBN 0-7141-1118 X.

Much of the original research into the Babylonian astronomical texts was done by the late Professor Abraham Sachs (Brown University, Providence, USA), the father of Jonathan Sachs, co-author of Lotus 1-2-3."



The Babylonian zodiac in 400 BC - AD 75.

Details of how to order your copy of the Halley's Comet disks can be found on the MacSig Library page.

The London Mac Group Meets Halley's Comet.

On Tuesday 8th April the members of the London Mac Group gathered in the Education Department of the British Museum to hear Christopher Walker talk about the development of the program 'Halley's Comet in History.' The presentation was greatly helped by the use of a large screen donated for the occasion by Apple Computer (UK) Ltd. and accompanied by their Public Relations Executive, Mary Ainsworth.

Christopher described the many problems which had to be overcome in order to arrive at a working display program which could be left running for several hours at a time. Not the least of his problems was the development of a cuneiform font and Christopher's description of the many ups and downs he experienced was both witty and humourous.

Customising Your Page Sizes

by Nick Helm

The page sizes available from Page Setup are not the most suitable for use in this country. How many of us use US Legal size paper? With 10" Imagewriters the 14" wide 'Computer Paper' option isn't an option. So why not set up your own more useful paper sizes to use with your documents? You can even fool MacWrite into selecting A4 as the default paper size instead of having to go through the tedious process of changing the page setup from US Letter to A4 Letter every time you open a New Document.

To do this you need a file editor or Resource Editor. I have used FileEdit, MacTools, ResEdit and REdit to do this job, though it is probably easiest with REdit.

If you are using a resource editor such as **ResEdit** or **REdit** you need to open up the Imagewriter file and then the PREC #3. If you are using a file or disk editor then open up the Imagewriter file , and towards the end of it you will find the following sequence of bytes which are the ones you need to deal with:-

```
00 05 05 28 03 FC 05 78 03 DE 06 90 03 FC 05 A0   "...(...x...ê...†"
03 DE 05 28 06 90 01 EF 03 FC 09 55 53 20 4C 65   "...(.ê.....US Le"
74 74 65 72 09 41 34 20 4C 65 74 74 65 72 08 55   "tter.A4 Letter.U"
53 20 4C 65 67 61 6C 15 49 6E 74 65 72 6E 61 74   "S Legal.Internat"
69 6F 6E 61 6C 20 46 61 6E 66 6F 6C 64 0E 43 6F   "ional Fanfold.Co"
6D 70 75 74 65 72 20 50 61 70 65 72 01 C0         "mputer Paper.¿"
```

The meanings of these hexadecimal numbers are as follows:-

```
First two bytes                          (00 05) :      Number of Paper sizes (5)
Sets of 4 bytes                          (05 28 03 FC): There are 5 sets of these, one
for each
                  (05 78 03 DE):         paper size. The first 2 bytes of the set
                  (06 90 03 FC):         represent the height of the paper in 120ths
                  (05 A0 03 DE):         of an inch, the second 2 the width.
                  (05 28 06 90):
                  (01 EF 03 FC):         This 6th set appears not to be used.
5 sets of data
1st Item    }     (09)                                  No of characters in name =9
            }     (55 53 20 4C 65 74 74 65 72)                "US Letter"
2nd Item    }     (09)                                  No of characters in name =9
            }     (41 34 20 4C 65 74 74 65 72)                "A4 Letter"
3rd Item    }     (08)                                  No of characters in name =8
            }     (55 53 20 4C 65 67 61 6C)                   "US Legal"
4th Item    }     (15)                                  No of characters in name =21
            }     (49 6E 74 65 72 6E 61 74 69 6F 6E 61 6C 20 46 61 6E 66 6F 6C 64)
                                                              "International Fanfold"
5th Item    }     (0E)                                  No of characters in name =14
            }     (43 6F 6D 70 75 74 65 72 20 50 61 70 65 72
                                                        Computer Paper
End Marker                               (01 C0)
```

Choosing Paper Sizes.

You need to then determine what paper sizes you want to have instead of the ones given. You can have up to 6 different sizes . The Mac measures its paper sizes in 1/120 of an inch (points). So convert the dimensions of the paper you want into the number of 1/120ths. Then you need to convert the decimal number you get to Hex. If you have the dCAD Calculator Desk Accessory then you don't need to tax your brain, just enterthe decimal number and then change the base to Hex and read off the resulting Hex number. Using MS Basic the following lines will give you the hex equivalent of measurements in inches.

Convert:

```
   INPUT "Enter Size in Inches", size
   points=size*120
   hexsize$=HEX$(points)
   PRINT " = ";hexsize$;" in Hex."
END
```

Below is a list of some paper sizes and there hex equivalents that I have found useful.

Name	No of Chars	Height	Width	No of Ch(Hex)	Hex Height	Hex Width
A4 letter	9	11.66	8.25	09	0578	03DE
US Letter	9	11.00	8.50	09	0528	03FC
A5 Letter	9	8.25	5.86	09	03DE	02BC
Label	5	1.50	3.50	05	00B4	01A4
Filofax	7	6.75	3.75	07	032A	01C2
Double FILOFAX	14	6.75	7.125	0E	032A	0357
Disk Labels	11	2.75	2.75	0B	014A	014A
Envelope	8	4.30	8.50	08	0204	03FC
File Card	9	3.00	5.00	09	0168	0258

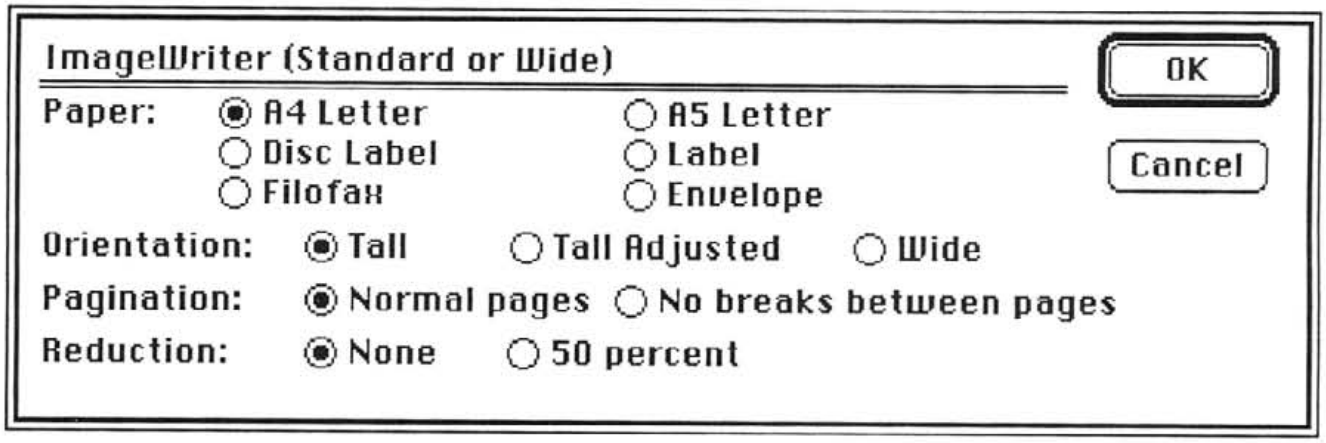
Note that the hex numbers are 4 digits long with leading 0's where necessary. (In hex the letters A- F represent the numbers 10-15.) Having decided on which paper sizes you want, assemble the relevent data in the order required to be entered. I do this on a piece of paper listing the hex numbers in the order in which they are to be typed in. If you are not using ResEdit then you need not bother with the ASCII codes for the letters of the names of the paper sizes because you can enter the names as text, just make sure you know how many characters there are in each name, remembering that a 'space' is a character. Make sure that the total length of the names of the paper sizes should not be greater than total of the ones used in the original Imagewriter file.

Entering the Data

Using REdit, start by clicking on the first digit that you want to change, the number of sizes and type in the new digit. The cursor is advanced on to the next digit so that it can be changed. Enter the digits for the new dimensions of the paper sizes you are installing. Keep going until you have entered all the data. For entering the names of the papers, click on the first character of the text to the right of the numbers and type in the new names. I find it a bit easier if I type a space where the number for the number of characters in the name is to go, and carry on typing in all the names first and then having done that, go over to the numbers and overtype the 20's (hex code for space) with the number of characters for each of the names. Remember that the number representing one character contains 2 hex digits.

The process is much the same with FileEdit or MacTools, though you need to select the way in which you enter the data, ASCII or Hex, from the Menus. With ResEdit, you can only enter data in the hex mode, which means you need to know the ASCII codes for all the characters you use. dCAD Calculator has a table for them as does the DA ConCodes.

Having entered all the data, and checked that it is all correct, you can save the changes you have made and return to the Finder. Select Page Setup from the file menu and see if you have succeeded. You should have created something like this-



Any comments or queries would be welcomed on Nottingham (0602) 250753.

Network News

Best of the Mac Items from the U.S.A downloaded by a B.A.S.U.G. member.

800K Drives

From: Dave Platt
<Dave-Platt%LADC@CISL-SERVICE-MULTICS.ARPA>
Subject: 800k drives not working...
It matters a great deal whether your 800k drives are the new Apple drives, or third-party 800k drives such as the Haba and (I think) Mirror Technologies. It also matters whether you're running under the old MFS, or under HFS (and, if so, whether you're running the HD20 RAM-based version, or have the new ROMs or a Mac Plus).
In short: the original Mac's .SONY driver assumes that all floppy disk drives have the same speed-control requirements as the Apple 400k drive. The Haba and other third-party 800k drives were built to be compatible with the Apple drives, and thus they work just fine on the Mac when plugged into the IWM (external-floppy) port.
The updated version of the .SONY driver released (in the Hard Disk 20 fi le) with the Apple HD 20 is different. It assumes that any floppy drive containing more than 400k is one of the new Apple 800k drives, which has its own speed controller and does not require that the Mac fiddle with the speed-control lines. [The new Apple drives supply a "data transfer ready" signal that the older drives did not... another incompatibility]. So, if you plug a Haba 800k drive into the IWM port, the new driver will assume that it's a new Apple drive, and won't supply some of the signals that the drive needs. Result: it won't work.
I've seen a patch that someone had constructed for the RAM-based version of HFS, that would cause the new .SONY driver to behave the way that the old one did (always supply speed-control signals). This patch must be applied to the Hard Disk 20 file using FEdit; it permits the Haba drives to work, but will probably render Apple 800k drives [and possibly the HD20] inoperative.
I don't know if the patch can be used if you have the new ROMs... I rather doubt it. Ditto if you use a Mac Plus. My current belief is that third-party 800k drives probably will not work if you plug them into the IWM port on a Mac Plus or a 128k-ROM Mac.
It appears as if the controller in the HD20 is providing the IWM speed- control signals to a floppy-disk drive plugged into its expansion port, regardless of the size of the drive. So, you should be able to continue to use your third-party drives by plugging them into the HD20.
NOTE HOWEVER... all of the above is meaningless if you actually have Apple 800k drives for the Mac. These should (better!) work just fine when plugged into the IWM port on a Mac that [a] is a Mac Plus; [b] is a Mac with the 128k ROMs, or [c] is a Mac with the 64k ROMs, and is running the System and "Hard Disk 20" files released on diskette with the Hard Disk 20.

Hope this helps...

Poor Man's Mini 8 Cable

From: (Richard Kalagher)
Subject: poor man's mini 8 cable
I am sending this message on a Mac-plus using the mini-8 modem port without a connector. If you are careful, you can strip about a quarter inch off of the end of a wire and stuff it into the connector holes on the Mac Plus. I am using some fairly stiff four conductor cable from Radio Shack. The following connections seem to be working for my modem (a Ven-Tel):

Mac Plus DIN-8	Stnd RS-232 Connector
1	20
3	2
4	7
5	3

This is of course not good engineering practice and I take no responsibility if you Zap something. But if you are careful and can't wait however long it will take to get a real cable, this might substitute. Good luck.

Two Cables for the Mac +

From: Barry Leiner
Subject: 2 cables that work with MAC +
After a great deal of aggravation of dealing with dealers and trying to get correct information (as opposed to information), I made the following cables and they work. Caveat emptor

1. cable to connect MAC + to imagewriter I

DIN8	DB25	signal name
2	20	DTR/HSK
3	3	Xmit
4	7	signal ground
5	2	Rcv 8-jumpered to 4 on DIN8

2. cable to connect MAC + to modem (Prometheus)

DIN8	DB25	signal name
1	5	CTS
3	2	Xmit
4	7	signal ground
5	3	RCV 8-jumpered to 4 on DIN8

Comments:
a. I chose to actually jumper the DIN8 connector. Hard to do, but not impossible.
b. Much of the confusion comes from the fact that the MAC+ signal names are those of a DTE (so far, so good) but the printer is also a DTE. However a modem is normally a DCE. Hence the cables have to be different.
c. The pins used on the DB25 connectors are those used on the original cables that came with my MAC (not +).
d. Note that this cable requires only 4-wire connector (which was all I had laying around).
Barry Leiner

Cheap AppleTalk Interfacing

From: Rich
Subject: Cheap AppleTalk interfacing.
I have used the MDS cable (Mac-->Mac) as a cheap AppleTalk connection for two Macs, or a Mac and a LaserWriter. I know this because I have used it to play MazeWars, and more recently to test some LaserWriter stuff.
Here are the pinouts for the Mac-to-Mac and Mac-to-XL cable:
Macintosh to Macintosh (9pin on each end)

No Connect	1	1 No Connect
No Connect	2	2 No Connect

Ground	3	3 Ground
TXD+	4	4 TXD+
TXD-	5	9 RXD-
No Connect	6	6 No Connect
HandShake	7	7 HandShake
RXD+	8	8 RXD+
RXD-	9	5 TXD-

(Observe that lines 5 and 9 are crossed [connected to one another])
Macintosh to Lisa
(This is more complicated, so I'll describe it.)
Pin 3 of the Macintosh side is connected to BOTH Pins 1 and 7 of the Lisa side. Pin 5 (TXD-) of the Macintosh side is connected to Pin 2 (TXD) of the Lisa side. Pin 9 (RXD-) of the Macintosh side is connected to Pin 2 (TXD) of the Lisa side.
[My Mistake; the second line should read as follows:
Pin 5 (TXD-) of the Macintosh side is connected to Pin 3 (three) (RXD) of the Lisa side. --rms]
I hope this is helpful.

Can We Believe This?

From: SJOBS (6801)
Subject: Jonathon
Date: 1-APR 98:39 Mousing Around
The following is information gathered after examining a working prototype of Apple's yet-to-be-released "Jonathon": Internal RAM : 11 Meg! Internal ROM : 512K! Switcher, Servant, and an ultranew secret "Discipline" program are now ROM resident! Internal 30 Meg Hard Disk! 14" Diagonal, vertically oriented COLOR screen! Height requires that the basic unit be approx. 6 inches taller than the current Mac design, yet it is only 2 inches wider, making room for a new "mini-34-circular connector" on the far left hand side. HOT! A new System called APple Reduced Instruction Language/Fast, Optimized Operating Level!

Since the previous codename, Jonathon, has now been registered to an add-on board company, and in keeping with Apple's desire to stress overall machine compatibility, the new unit will be sold (and was labelled) Giant Mac. Sadly, the tentative price I heard is $12,950! Given this high ticket, however, the folks at Cupertino have forseen the need for a credit line for customers more powerful than the current AppleCredit. Along with release of the unit, Apple will also unveil G-MAC Financing.

MacPlot Experience

From: hvt@tnocsda.UUCP (Henk van Tijen)
Subject: MacPlot experience

MacPlot Experience:
version: 1.8 as of August 1985

Plot has some nice features, but is implemented with some faults. It's a seperate program that analyzes the (quickdraw) contents of the Clipboard and then translates it to plotter-commands. The contents of the clipboard must come from MacDraw. If you want to plot from MacDraft, you have to paste it in MacDraw first. (Otherwise rotated rectangles really result in garbage).
The user interface is (sigh...) not completely "Macish": -for a lot of dialog boxes there's only a "Quit" (that works as a "OK") and no "Cancel". Or even no "Quit" but your selection performs at the same time the "OK"-function. -Radio buttons and check boxes are used wrongly. -You have to select your plotter from a menu called "Plotter". Because there are so many plotters, they have added a second menu, called... "Plotter".

Features: - You can create a hatch-style for each fill area pattern. Distance, angle, cross hatch on/off, and pen number can be selected. - The drawing can be scaled up and down by some fixed factors (1:1.5, 1:2, 1:5 etc) - Drawing can be rotated by 90 degrees. - The drawing can be repositioned (by dragging mini-drawing in a window). - Each quick draw line can be assigned a plotter pen (or 'not drawn') and a optional dash-distance - Text can be drawn by plotter built-in fonts or the Mac fonts can be drawn with dots.

Major complaints: - Sometimes the plotting stops halfway, leaving you with a incomplete drawing. (Maybe it's my fault but I really tried everything). - Sometimes the plotter seems to not get a pen-up command, typically resulting in a diagonal line across the paper. - (*BAD*:) Text can not be assigned to pens. So the plotter draws the text with the pen it currently happens to have in it's holder. I.e. if you are plotting with colored hatches, SOME of the text will probably be colored too. - Because all the plotterdrivers are contained in the code it's not possible to add a custom plotterdriver. It makes the program's file big (70+ K) too.
For professional work MacPlot is certainly not adequate, unless you only need a one-pen plot of not to complicated drawings. Maybe there's a improved version out, but my dealer's latest is still 1.8.

I think separate plotter programs is not the way to go. The solution as with the Laserwriter is better, as it can be used from any decent program. (Or is there a technical problem here ?) Please comment to me directly by e-mail, I will post a resumee to the net.
- Henq
USENET: mcvax!tnoscda!hvt
All normal disclaimers apply. And:
Everybody is entitled to my opinion

ResEdit Pig Mode

From: wrs@wb1.cs.cmu.edu.UUCP
Date: Sun, 6-Apr-86 07:16:11 GMT
Subject: ResEdit fun Keywords:

ResEdit Pig Mode
While playing around with ResEdit, I found a strange dialog box in ResEdit itself (#146). Some disassembly lead me to the "About ResEdit..." menu item. It turns out that holding command and option down when you select "About ResEdit" will give you a more informal about box (e.g., thanking Mrs. Fields for the cookies). Holding shift, command, and option will put up #146, a very small box with the message "Flipping Pig Mode ON". This last box toggles between ON and OFF, and does things with the disk when you change its state.
Anyone have any idea what Pig Mode is? I turned it back off immediately, but maybe tomorrow I'll be brave enough to play around with Pig Mode flipped ON...
- Walt -- Walter Smith, Math/CS undergraduate, Carnegie-Mellon University uucp: ...!seismo!cmu-cs-k!wrs

Finding The System Folder of an HFS Disk

From: ephraim@wang
Subject: Finding the Blessed System Folder

```
031F: A5 FA     47              LDA  PCOUNTER+1
                  ;check both low and high bytes
0321: C5 FC     48              CMP  NPEOPLE+1
0323: F0 68     49              HEQ  EXIT
                50    ON        >>>  DEC FRETOP;G;0
0325: 38        50              SEC
0326: A5 6F     50              LDA  FRETOP
0328: E9 0C     50              SBC  #C
032A: 85 6F     50              STA  FRETOP
032C: A5 70     50              LDA  FRETOP+1
032E: E9 00     50              SBC  #0
0330: 85 70     50              STA  FRETOP+1
                50              <<<
0332: A0 0B     51              LDY  #G-1
                  ;coun$ from 0 to G-1 not 1 to G
0334: B1 EE     52    STORE     LDA  (PDPNTR),Y :transfer bytes
0336: 91 6F     53              STA  (FRETOP),Y
0338: 88        54              DEY
0339: 10 F9     55              BPL  STORE
                56              >>>  INC PDPNTR;G;0 ;ready for next
033B: 18        56              CLC
033C: A5 EE     56              LDA  PDPNTR
033E: 69 0C     56              ADC  #G
0340: 85 EE     56              STA  PDPNTR
0342: A5 EF     56              LDA  PDPNTR+1
0344: 69 00     56              ADC  #0
0346: 85 EF     56              STA  PDPNTR+1
                56              <<<
                57              >>>  DEC FRETOP;2;0
                  ;allow space for 2 byte count to be attached
0348: 38        57              SEC
0349: A5 6F     57              LDA  FRETOP
034B: E9 02     57              SBC  #2
034D: 85 6F     57              STA  FRETOP
034F: A5 70     57              LDA  FRETOP+1
0351: E9 00     57              SBC  #0
0353: 85 70     57              STA  FRETOP+1
                57              <<<
                58              >>>  INC PCOUNTER;1;0
0355: 18        58              CLC
0356: A5 F9     58              LDA  PCOUNTER
0358: 69 01     58              ADC  #1
035A: 85 F9     58              STA  PCOUNTER
035C: A5 FA     58              LDA  PCOUNTER+1
035E: 69 00     58              ADC  #0
0360: 85 FA     58              STA  PCOUNTER+1
                58              <<<
0362: A0 01     59              LDY  #1          ;attach count
0364: A5 FA     60              LDA  PCOUNTER+1
0366: 91 6F     61              STA  (FRETOP),Y
0368: 88        62              DEY
0369: A5 F9     63              LDA  PCOUNTER
036B: 91 6F     64              STA  (FRETOP),Y
036D: A0 02     65              LDY  #2
                  ;put pointer in place for TT$(N)
036F: A5 70     66              LDA  FRETOP+1
0371: 91 FD     67              STA  (VARPNT1),Y
0373: 88        68              DEY
0374: A5 6F     69              LDA  FRETOP
0376: 91 FD     70              STA  (VARPNT1),Y
0378: 88        71              DEY
0379: A9 0E     72              LDA  #G+2
                  ;put in length byte
037B: 91 FD     73              STA  (VARPNT1),Y
                74              >>>  INC VARPNT1;3;0
                  ;move to next pointer
037D: 18        74              CLC
037E: A5 FD     74              LDA  VARPNT1
0380: 69 03     74              ADC  #3
0382: 85 FD     74              STA  VARPNT1
0384: A5 FE     74              LDA  VARPNT1+1
0386: 69 00     74              ADC  #0
0388: 85 FE     74              STA  VARPNT1+1
                74              <<<
038A: 88        75              DEY
038B: 30 8C     76              BMI  ENDCHECK
                  ;always Y contains $FF
038D: 60        77    EXIT      RTS

--End assembly--

142 bytes
Errors: 0
Symbol table - alphabetical order:

MD DEC     -$8000     ENDCHECK-$0319     EXIT    -$038D
FRETOP     -$6F       G        -$0C      MD INC  -$8000
NPEOPLE    -$FB       ON       -$0325    PCOUNTER-$F9
PDPNTR     -$EE       STORE    -$0334    VARPNT1 -$FD

Symbol table - numerical order:

G        -$0C      FRETOP  -$6F      PDPNTR  -$EE
PCOUNTER-$F9       NPEOPLE -$FB      VARPNT1 -$FD
ENDCHECK-$0319     ON      -$0325    STORE   -$0334
EXIT     -$038D    MD INC  -$8000    MD DEC  -$8000
```

SOFTWARE LIBRARY NEWS

by Graham Attwood

RECENT RELEASES

D105 Disk Manager by Ewen Wannop
Just the thing to sort out your disks, put in a patch or two, or recover that crashed disk. See articles in February and April Hardcores for more detailed information. A printable manual is included on the disk.

D106 Kermit protocols for the Apple
Allows data transfer by phone between a wide range of micros. Not as versatile as a full comms. program but much better than XMODEM under Ward Christiansen protocols. For an overview see the article in February Hardcore. Instructions are included on the disk.

P009 Stormbringer
An Adventure written in Pascal. (needs library units from disk P008)

NEW ISSUES

D107 Pot-pourri
Airfoil designer for model aircraft. Darts score keeper. Program 'Title page' maker. Audio output of hex dumps via U-Talk card. Use a Mountain Hardware clock under ProDOS (see Robert Clegg's article in this issue).

P01' Pascal utilities
DATES unit - allows calculations with dates. DUPLICATE - a fast copy program for single drive users. MCAT - a master catalog for Pascal disks. COMPLEXNOS unit - for handling complex numbers. UNDERLINE - enables the underline character to be used in Pascal programs.

C029 Mixed bag utilities including:
TRANSFER - allows Text or Binary files to be moved between DOS 3.3 and CP/M disks, ideal for putting Wordstar files into Applewriter or vice-versa. COMPARE - tests two MBASIC programs and reports any differences.

All Software Library disks are £5.00 inclusive of VAT and P&P. Buy in bulk at 10 for £45.00 including FREE library case.

Library Catalogue available on disk at £1.00 or free with any Library disk if requested.

Macintosh SCSI

by courtesy of Appletext

The Small Computer Systems Interface (SCSI or Scuzzy), a second generation development, was submitted to ANSI in 1982 for acceptance as a systems interface between computers and other peripherals. In its first generation, it was known as SASI or Shugart Associates Systems Interface, which Shugart developed for the commercial market bewteen 1980 and 1982, designing it primarily as a system interface for disk drives. While employing the multiuser and bus arbitration of SASI, SCSI adds features and host processors on the bus. SCSI also insures full user device independence and allows the bus to handle differential drivers and receivers, increasing the speed and distance capability of the bus. The European Computer Manufacturers Association (ECMA) is currently working on their own version of the SCSI document. No specific release date has been mentioned.

With its simple arbitration scheme and well-defined command set, the SCSI bus can form the backbone of multi-processing and smart I/O systems that coordinate as many as eight SCSI adapters and controllers. Each SCSI controller can govern as many as eight peripherals, with an option to expand that number to 2048 (per SCSI controller). The network may be as long as 25 meters for differentially driven signals or 6 meters long for single-driven devices.

Bus access and user arbitration

Two arrangements can interface the unit with the SCSI bus:

1. 50 pin
   a. Differential driven signals
   b. Maximum data transfer rate per user: 4 Megabytes
2. 25 pin
   a. Single-wire driven signals
   b. Maximum data transfer rate per user: 1.5 Megabytes

Apple Macintosh Plus supports a data transfer rate of 320 Kbytes/second. The Macintosh also uses a DB-25 connector identical to the RS-232 interface - which may lead to user identification problems in the future. The network interface specifies the eight data lines (0 to 7) on the SCSI connector as device-ID lines, which serve as user addresses. SCSI resolves bus contention by address priority along with the status of the BSY (busy) and SEL (Select) lines. To initiate a transaction, a device first checks the control lines to determine if the bus is in use. If the BSY and SEL lines are not active, the device sets BSY and its own specified user-ID line (0 to 7). The highest selected line wins bus access, with all the other users deferring.

The ANSI specification does not detail address priority. Generally, assign higher priority to devices that are not fully buffered or that have smaller buffers. Lower priority should go to devices, such as printers, that have large buffers because they can allow deferred bus access to a greater degree than the buffers of limited storage devices. The highest priority user first asserts its ID. After that, while still maintaining its device-ID line, the user raises the SEL line to signal bus arbitration, then raises the device-ID line of the device it wishes to communicate with, and then drops BSY, whereupon the selected device then raises BSY to complete the sequence. Once the arbitration stage is over, the devices move into either the MESSAGE or the COMMAND stage.

Bus utilization

Like ABLAP protocol, bus arbitration reduces network overhead time by not requiring data transfer between network users. Another measure of efficiency is the channel usage involved in actual data transfer, not in system control or system status, with system degradation increasing as more users try to get on the bus. Results from a test at NCR indicate that SCSI achieves better than 50% channel usage, well above the 30% channel usage designers generally consider as the maximum allowed. These results were obtained in laboratory conditions, but it still appears that SCSI is a great improvement over other data transfer schemes between multiple processors on a common bus.

Concurrent bus activity

SCSI uses 'smart' controllers which can enhance bus usage so that initiators as well as targets can contend for the bus (which is why arbitration is needed in a multiprocessor environment). A target system, through its control unit, may contend to re-establish a connection with an initiator that has requested the target to perform some task. The target system's control unit can relinquish the bus so the unit and the system can make better use of the time a it takes to respond to a command from an initiator. Subsequently, once the peripheral is ready to interact with the initiator again, the control unit can contend for the bus. After winning arbitration, the control unit reselects the initiator by raising the proper control lines. In this way, devices like tape drives and printers can temporarily disconnect when their buffers are full, allowing other operations to continue at the same time. This parallel activity is called MULTITHREADED I/O.

Message stage functions

A system must support the full SCSI implementation in order to send messages on the bus. This MESSAGE phase is necessary for setting up local conditions (ie., synchronous data transfer, etc..) for the following COMMAND stage. The 'Identify' message establishes the physical data path between an initiator and a target. During this process, the initiator's processor on the SCSI bus (called the Host) saves a set of pointers that describe the current buffer location in the Host's memory. If the target then chooses to disconnect to perform its command or task, the saved pointers define the same buffer location when the target re-establishes the connection to the initiator. If either the target or the initiator cannot support messages, the target goes directly to the COMMAND phase. In this case, the target cannot disconnect until the data exchange is complete.

Command stage functions

The SCSI commands provide for many system tasks. The Enquiry command, for example, permits the SCSI system to determine the configuration of I/O processes without having the entire system on the bus go through a system definition regeneration. The I/O device responds to the Enquiry command by telling the initiator what type of device the I/O unit is and how to communicate with it. If the system software

implements an Inquiry command as part of its initial booting process, the host can identify the characteristics of all the devices on the system at that time, eliminating a great deal of operator intervention and overhead. Other commands allow peripheral control units to assign block numbers to the peripherals they control.

The Logical Block Addresses (LBAs) usually refer to a single physical sector of a peripheral; however, they may also be part of a physical block or multiple physical blocks. A collection of contiguous logical blocks is known as a Logical Unit (LUN). A LUN can refer to a part of a peripheral (for example, one disk in a multi-disk drive), a single peripheral, or a group of peripherals, depending how the control unit is set up. This means that a control unit needs only to specify a LUN and LBA instead of a drive, cylinder, head, and sector address when addressing a random-access drive.

Data transfer modes

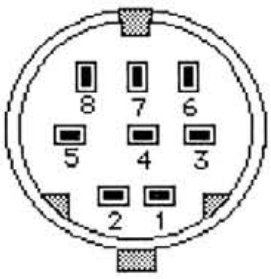
Data tranfers between selected devices may be in either asynchronous or synchronous mode. Syncronous data transfer must be specified by both bus users during the command mode, otherwise data transfer mode defaults to asynchronous mode. During asynchronous mode, the REQ(request) and ACK(acknowledge) bus-control signals control the data pacing on a byte-by-byte basis between the two units, with a maximum data rate of 1.5 Mbytes/second. Synchronous data transfers involve a series of REQ commands and data without the immediate receipt of corresponding ACK signals, allowing a faster data transfer rate of up to 4 Mbytes/second. ACK signals sent by the receiving device are used to verify individual data byte transfers, with a pre-established offset between the actual transfer of a specific data byte and its acknowledged receipt. This REQ/ACK offset is part of the synchronous data transfer control agreed to by both parties beforehand.

Sources of further information:

1. Use SCSI devices for multiprocessor, smart-I/O systems; John Lohmeyer, EDN magazine, January 24, 1985.
2. SCSI bus solves peripheral interface problems; Richard Barrett, MINI-MICRO SYSTEMS, May 1984.
3. Smart Interface standard anticipates needs of future minicomputers; Stephan Ohr, Electronic Design, October 31, 1984. 4. SCSI chip simplifies host-peripherals interface for microcomputer use; Ron Engelbrecht and Harry Mason, Electronic Design, October 31, 1984.
5. Multitasking controller speeds throughput to multiple disks; Robert Snively, Electronic Design, January 26, 1984.

Mini DIN-8 Serial Connector

Female Connector



Technical Note #65

Macintosh Plus Pinouts

by Mark Baumwell

January 27 1986

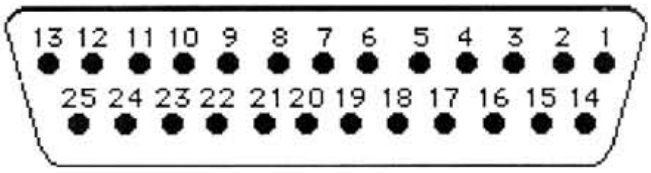
Below are pinout descriptions for the Macintosh Plus ports and cables that are different than the Macintosh 128K and 512K Personal Computers. Note that any unconnected pins are omitted.

Macintosh Port Pinouts

Macintosh Plus Serial Connectors (Mini DIN-8)

Pin	Name	Description/Notes
1	HSKo	Output Handshake (from Zilog 8530 DTR pin)
2	HSKi/External Clock	Input Handshake (CTS) or TRxC (depends on 8530 mode)
3	TxD-	Transmit Data line
4	Ground	
5	RxD-	Receive Data line
6	TxD+	Transmit Data line
7	Not connected	
8	RxD+	Receive Data line; ground this line to emulate RS232

Macintosh Plus SCSI Connector (DB-25)



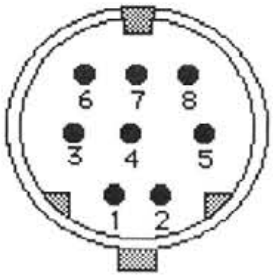
Female Connector

Pin	Name	Description/Note
1	REQ-	
2	MSG-	
3	I/O-	
4	RST-	
5	ACK-	
6	BSY-	
7	Ground	
8	DB0-	
9	Ground	
10	DB3-	
11	DB5-	
12	DB6-	
13	DB7-	
14	Ground	
15	C/D-	
16	Ground	
17	ATN-	
18	Ground	
19	SEL-	
20	DBP-	
21	DB1-	
22	DB2-	
23	DB4-	
24	Ground	
25	TPWR	Not connected

Macintosh Plus Cable Pinouts

Apple System Peripheral-8 Cable (connects Macintosh Plus to ImageWriter II and Apple Personal Modem)
(Product part number: M0187)
(Cable assembly part number: 590-0340-A (stamped on cable itself).

Male Connector



(DIN-8)	(DIN-8)
1	2
2	1
3	5
4	4
5	3
6	8
7	7
8	6

Macintosh Plus Adapter Cable (connects Macintosh Plus DIN-8 to Macintosh DB-9 cables)
(Apple part number: M0187 - available through dealers only)
(Cable assembly part number: 590-0341-A (stamped on cable itself).

(DIN-8)	Name	(DB-9)	Notes
1	+12V	6	
2	HSK	7	
3	TxD-	5	
4	Ground	3	Jumpered to DB-9 pin 1 (in DB-9 connector)
5	RxD-	9	
6	TxD+	4	
7	no wire		
8	RxD+	8	
	Ground	1	Jumpered to DB-9 pin 3 (in DB-9 connector)

Stop Press.

Blyth Software have announced an upgrade to Omnis 3 on the Mac. The new upgrade called OMNIS 3+ will be given free to customers who purchased Omnis 3 after 1/3/86 - The normal upgrade policy applies to other users i.e. £50 + p&p and VAT

First reports say its faster, more advanced and has 60 new features. The manual has been re-written and now contains an advanced tutorial as well as reference section. We hope to get a report for the next issue.

Macintosh Technical Notes

The preceding Macintosh Technical Note has been published in Hardcore in response to an initiative by Apple Computer, Inc., who have decided to distribute their Technical Notes more widely than previously. In Technical Note #0, dated 15/12/85, they said:-

"We want Technical Notes to be distributed as widely as possible. ..... we're also going to distribute Technical Notes to user groups and upload them to various electronic bulletin board systems, and we're placing no restrictions on copying them....."

Technical Note #65 was downloaded from Usenet. We hope to print more Technical Notes in the future and applaud this decision of Apple Computer, Inc.

MacPascal Programming

a review by John Arnold

Title:- MacPascal Programming
Author:- Drew Berentes
Publisher:- TAB Books Inc., 1985
Price:- £14.85

This book aims in 278 pages to provide an introduction to programming the Macintosh using MacPascal, and really requiring that you have your Macintosh™ operational in front of you as you read.

The text is very readable and well laid out with plenty of suggestions for experimenting with various aspects of Pascal, so that you can discover for yourself what Pascal will and will not accept.

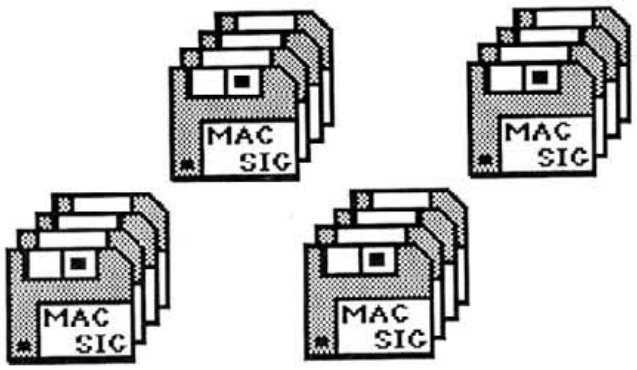
Drew Berentes starts in Chapter 1 with Pascal Procedure statements and ends at Chapter 15 with a description and listing of an Inventory program, having dealt with on the way control statements, data types, arrays, records, strings, files, searching and sorting.

My reservations about the book are that there is little demonstration in text or pictures of the graphical capabilities of the Macintosh, in fact most of the printings of the windows have not come out well at all, this may be mainly due to the poor quality paper being used. The printing of the graphical output of a program called LOTSABOXES on page 57, must be the worst advert for the Macintosh yet!

Each chapter heading uses up one third of the page and consists of a screen dump, but why should all fifteen chapters have exactly the same screen dump?

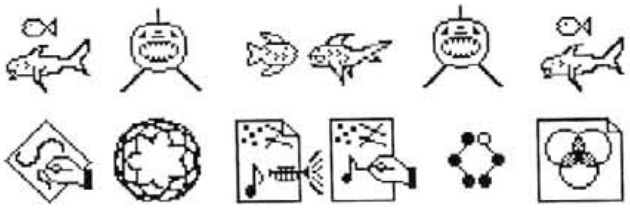
For an extra pound or two one can buy other MacPascal books which are produced to a higher quality. Make sure that you look at the opposition before rushing out to order this one!

New MacSig Library Disks



Disk 24

CORE WARS !!



WATOR

ORBITAL MIXING

SPLINE DEMO

and FRACTALS !

Disk 26

GAMES

Megaroids **MacBugs!**

Wizard's Fire **Hangman**

Disk 25

UTILITIES SPECIAL

WAYSTATION

STRIPPER

RAMSTART

PURGEICONS

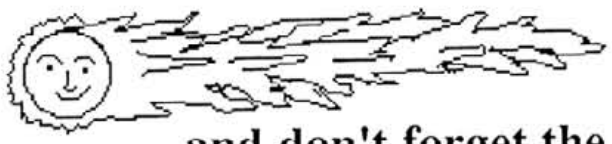
MWRESCUE

Disk 27

GRAPHICS

VIDEOPLAY **AQUARIUM**

JUGGLER **PAINTMOVER**



and don't forget the

HALLEY'S COMET !!!!

MacSig Library Disks

#1:RESOURCE EDITORS the latest and best. Updated 7/3/86.
#2: ATKINSON'S GOODIES:-HexDump, Life, Rolodex, Rolofile, Screenmaker; Pics:- Borders, Hello, Rel Note;Basic:- crude.v1, MacColor, split, trim, PictureMusic.
#3: MAC FONT DOCUMENTS Fonts, Pics:- Cairo-Keybd, Font Samples, Gen-20, NY-20-36, Seat-20; Write Docs:- Gen, L.A.-Seat, N Y, Other, Toronto.
#4: MS BASIC:-BigPic, BinHex, DskZap, FontList., MacMonitor+Docs, MacTEP 1.87+Docs, Super, The Entertainer, Xref; MSBasic Fixes;Pics:- Explosion,etc.
#5: DESK ACCESSORIES:- Corv Calendar, Exec. Dec. Maker, FRP Die Roller, Hex Calc, Magnify Glass, Orig Clock, RPN Calc, System Bugs; DA Mover +Docs, Basic Ex:-Creator; Fonts:- B'way 24, Silicon Vy 12; Games:- Daleks + Docs, Reversi + Docs.
#6: MAC PAINTINGS:-Ace of Spades, Archaeopteryx, Castle, Dreams of the Phoenix Samples, Enterprise, Expose Yourself, Eye, Garage, Horse, IBM Dies, Japanese Girl, Keyboard, Magritte,Sport Shoes,etc,etc.
#7:BASIC&CALENDAR:-DeskCal,Demo3D,Disass,Textasm Games etc:- Abe & Mona, ABM-ICBM, Analog Clock, Go, Living Art, The Nerd; Write Docs:- Acme Burger, Go Docs; MS Basic:- Mus/Leira's Theme,Bach Minuet, Star Wars, New World Sym; Prog Aids:- Calc, CR Stripper, Dvorak Keybd, FancyList, File Comp,F Print, F Disp, MacCopy 1.4, Patt Ed.
#8: BASIC & INFO DOCS:- MacMelody + Docs, MenuEdit, Localizer 1.1, Hilbert, Towers of Hanoi, mFinder, QuickPrint, Screenmaker; MS Basic:- BinHex, Color, Dump, Enlarge + Docs, Go, MacTek + Doc, MacTEP Runner + Aux + Doc;Write Docs:- Macsbug.doc, MacErrors, Launch, Macpaint Info, RS232, Sound.
#9:- ALICE & PAINT DOCS:- Banner, Steven Jobs, Windows, Alice, Daleks + Docs; MacPaint:- PinUp Girl, M.Mouse, Dr.Who's Callbox; Comms:- Autodial, Modem.nums, Deskbug.Hex, BinHex.v30
#10:- FILEVISION MODELS FV Adven:-Pit, Withkey, Shells, Scarabs, Snake, Invisible, Gold, Macs, Keys, Lamp, Nokey, Nick's D&D; FV Anim:- Ski Slope, Wipeout; FV Filing Templates:- Births, Calendar, Calendar Docs, Contacts; FV Intell Illus:- Elements, Eye, Napa Valley, Piano, Flow Chart.
#11:- FILEVISION MODELS FV Olympics:- OlSwimming, Olympics; FV Estate Agents:- Plan A, Plan B, Plan C, Real Estate; FV Books:- Bookcase, Key; FV Various:- Apple(UK), Cards, Contacts, djm Beethoven, Eye, Greater London, Supermarket, UK, WakeUp Mound, Wipeout.
#12:- MACFORTH STUFF:- Convert, Decompile, Define, Disassembler, Disk-Copy, Tube, Forth.XMT; MacForth Games etc:-Backg'mon, MacMusic, MacLife+Docs, Block Conv.
#13:- NO BASIC! Games:- Bricks, Iago, MacMelody; Utilities:-Banner, BinHex, File, FileEdit; Comms:- MacKermit, MacKermit.help; Fonts:- Andover 12, APL 12, APL Map, Greek 10-24, Hood River 12,Park Ave 18, Philly 9-24, Russian 10-20.
#14:- MS BASIC Utilities:- File Info, Mouse Checker, Print, Type; Basic Comms:- AutoTEP + ovl + Manual; Basic games:-Concentration, Missile Command, Mouse-Ball, Orbit; More Basic:- C.I.A., Mars Escape, Trucker, Vampire!, Catalogger, Radar.Bas, Weather; Apps:- MacClock, 3D-Demo, Windowdemo.
#15:- FONT UTILITIES Utilities:- Font Mover, Font Doubler, Font Editor, RMover; Font Editor Docs 1, 2 & 3; Font Info:-Editing Fonts 1 & 2, Font Summary, Font label, MacFont Tips, MacFont Info, Font Samples; Cornell Fonts:- PaloAlto/Exeter, Ravenna; Princeton Fonts + Docs, UT Fonts:- Moscow, Santiago; Math Fonts:- ASCII, ChicMath, Genmath, Vectors.
#16:- FONTS:- London, Long Island, Neat, Other, Seattle, Stencile, TorontoFix, Venice 28, Broadway, Silicon Valley, Inverse, Pica, Cyrillic2-12, Cyrillic1-12, Moscow, German Script Fonts, Logic Fonts; MacWrite Docs:- Dir 24, Dir 12, GenDir, Info, Inventory.
#17:- FINDER & RAM DISK RamStart, Disk Utility, Analog Clock, Scan Disk, Install Date Key + Doc, DA Mover; MusicWorks Docs:- First Noel, Jingle Bells, Rhapsody, Silent Night; MacPaint Docs:- Electronic Symbols, Music; Desk Accs:- Journaling Acc + Docs, Morse Code; Fun Apps:-Backgammon, Missile Command, Mondrian, Nightmare, Rotations, SoundDemo.
#18:- XLISP & DATAFLOW:- XLISP+ Docs 1, 2 & 3; DataFlow+Docs A & B; MacInfo:- Launch, MacPaint, Sound; HandsOn; Demos:- Hendrix, Picture Data, Start me; Desk Accs:- Disk Info, Quit, New Key Caps.
#19:- BASUG SPECIAL:- BCPL Stuff:- Pattern, Pattern.Bcpl; Desk Acc & Font Mover, Assorted DA's, DAMoverV14, Disk Info, Morse Code, New Key Caps; BinHexv4, BinHex5, ViewPaint, Catalog x Poms; sfupdate + doc.
#20:- RED RYDER Red Ryder 8.0 + User Manual in three parts, 193K in total, (needs Write4.5); Modem Graphics Folder etc.
#21:- MOCK ACCESSORIES Mock Accessories 4.0:-MockPrinter, MockWrite, MockChart; Multi-Scrapbook Accessory:- Multi Scrap, Install MultiScrap; SortMenu, Switcher 4.4, Boston Font + Docs.
#22:- EDUCATION Flashcard, About Flashcard, Sample FlashCards:- Composers, Elements, Hormone/Function, Hormone/Gland, Morse Code, Multiplication Tables, Spanish Numbers; Drill 2.0, Creating a Drill, Read This Drill, Caveats and Hints, Sample Drills:- Maps Info, Musical Keys; Grades, Grade Disk Info, Grade.text, grader.text, linkgrade.text.
#23:- ATLAS & SOCIAL STATS Atlas Application, Europe; SocStat Application, Group Influence, Marriage Roles, Small Groups, Social Norms, Social Deviance, Stratification.
#24:-CORE WARS & FRACTALS:- Core War + manual + files; Fractals1, Fractals2, Binary Trees2.0, bin/graphics, Hands On, Munch, Spline Demo, venn2.0, Wator, Wizard's Fire, LazLife2.0 + Puffers, Orbital Mixing + Help.
#25:-UTILITIES SPECIAL:-Waystation, Stripper, Squeeze, Scan Disk, RamStart, PurgeIcons, MWRescue, Memtest, MassCopy, MasInit, MacGrep, MacClone, Keyboard0.1, Hyper, Disk Peek, DisAss, DialogCreate, Altfinder, Alert/Dialog Ed, Date Key, FunctionKey9, PackIt.
#26:-GAMES:-Hangman + Words, MacBugs!, Megaroids, LAZLife + Puffers, Antitheft ROM Icon, Wizard's Fire, Altfinder.
#27:-GRAPHICS:- SelectPaint, PaintMover, MakePaintv1.1, 3D, Trench, Cube, Aquarium, Juggler, Mystery, Piet, xFinder, Escape, Jumper, VideoPlay + 2 VideoWorks Examples; Pics:-Woodcut, Pottery, Confidential, Fishes, LayoutRev1.

Special Items

Modula-2:- The Modula-2 system consists of five disks which cannot be ordered separately. They are 1. The Exec disk which contains many files including sample programs; 2. The Compiler disk; 3. The Linker disk; 4. the Modula-Prolog and Debugger disk; 5. The Documentation disk. The complete set of five disks is available to members for £20 inclusive.

Halley's Comet:- The Halley's Comet program described in full on another page, is available in two forms. The Filevision version is available for £8.50 on a single disk and can be ordered as **'Halley's Comet 1'**. You do need Filevision itself in order to run the program on this disk. The Slide Show Magician version is available for £12 on two disks and can be ordered as **'Halley's Comet 2'**. This version will run without Slide Show Magician itself.

Silicon Beach Software

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

Airborne!: £24.95
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.

Accessory Pak 1 £34.95
Featuring Paint Cutter.

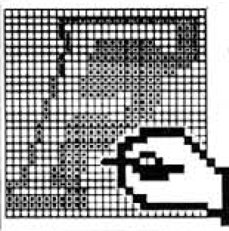
MacNosy v. 2: £80.00

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.
Now with windows, pull-down menus... the full Macintosh Interface: optimised for MacPlus, but a delight on the 512K machine as well. Much easier to use than Version 1 HFS and 128K ROM compatable.
Commented 128 ROM listing: £40.00
MacNosy v.2 + 128 ROM: £110.00
(The commented 128 ROM listing will be available during February. MacNosy v.2 is NOW AVAILABLE. Version 1 users call about upgrading)

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. £199.00

MacSerious Special Offer Number One
OK, so there's no helpful hint this month. Instead, we are going to provide - free of charge - the special MacWorld edition of **The Mousketeer** to everyone who writes or phones for our catalogue (over 400 items) before the end of March. Have a MacSerious laugh!



NOW HERE! **Fontographer : £345.00** At last - there's a professional font editor that makes FULL use of the Apple LaserWriter. Make your own downloadable fonts. If you have a LaserWriter, maximise your investment NOW. CALL NOW! Initial stocks are limited!

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

Get your files organised with

£34.95

NEW! **Prolog II £345.00**
A Macintosh implementation of the Prolog artificial intelligence language, used for developing expert systems and natural language processing. Systems developed using it can be linked with each other and the Toolbox using Pascal. Prolog is the language of choice for the Fifth Generation advanced computer project under way in Japan.

Micro Planner £375.00 Now there is a professional project planning and scheduling program for the Mac.
Call about Micro Planner Plus for the MacPlus!

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

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

Another message from our Boss: It's better, but still not good enough. You've got to buy still more (especially the expensive stuff) - then we'll lash out on those glossy colour adverts that you pine for.

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 programsare, 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**

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
Laser Business Forms - Business Forms made perfect! £45.50

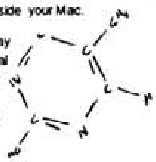
British Ready -to-use Graphics
Gallery - Symbols - Hands
Food & Drink - Display Fonts
Border Fonts - Display Alphabets
European Atlas £29.50 each
Disks chock-a-block full of MacPaint images.

Pardon me, boys, is this the *NEW!* **Macinooga Choo-Choo**?

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!
£34.95

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

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

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!

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

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) Note: prices here exclude VAT

We said it before, we'll say it again: If you think reading this is tough, try puting it together

We welcome orders from Western Europe & further afield

My OFFICE *NEW!*

THE COMPLETE OFFICE SYSTEM FOR THE MAC Available in English, German, Italian, Danish & French

My Office: £99.00
- Powerful but easy-to-use file management system
- Built-in wordprocessor
- Personalised Form-Letter generator
- Built-in Graphics program for forms, stationary, lewsletters, etc.
- Highly flexable Search Feature
- Quick "Archiving" for inactive files
- Instantaneous "File Clerk" retreval
- Fast and easy Mailing Labels
- Easy to use manual

Coming soon: Executive Office. Call for details.

Our Standard Shipping & Handling Charges:
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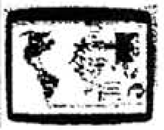
Call for cost of shipping by other methods

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 every-thing seem vaguely familiar, yet you remember nothing. You'll have to solve this Chandleresque murder yousetf!

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.

We are exclusive European distributor for many of the products listed on this page, and we're still looking for dealers and distributors throughout the UK and Western Europe. Interested? Then call now!

News Flash hot from the MacWorld Expo
San Francisco - January 1986

We came, we saw, we cornered! It was well worth visiting the greatest Mac show on Earth once again. Our faith in Apple and the greatest little computer has been completely vindicated by what we saw there. There is no doubt that the MacPlus is an important move that turns the Macintosh into a machine that's clearly superior to the best that Big Blue can offer, and already there was software on display at the show that can give us all access the full power of our favourite computer. So naturally we talked to the right people and came up with some insanely great deals for all you software-starved users:

Mac3D from Challenger Software **£179.00**
The 3-dimensional drawing package that MacDraw never was and MacDraft should have been. We were particularly impressed with this one - a simple- to-use system for architectural, engineering, and general drawing with a 22- tool palette of basic shapes to get you started. Hidden line and surface removal, powerful reshaping tools, 360° rotation in 1° increments, moveable viewing position, auto dimensioning, full text features, enhanced pattern editing, and LaserWriter compatability are all provided. We've got it here now, but numbers will be limited for a week or two, so don't delay getting your order in - it's first come, first served!

M.C.A.D from VDE & **EZ-Draft** from Bridgeport 2 full scale CAD systems that rival and surpass the best you'll find on other machines. Both are in the £2,000 price range, so they are meant for professional users , but we think you'll agree that's value for money when you see what they can do. Call now for more information.

ParaGenesis from AES is a fully professional electronic design system that can be used by an electronic engineer to take the process of logic circuit design all the way from initial schematics design on screen to final production drawing output to plotters. TTL, CMOS, and various other standard libraries are available, and we will be able to supply an evaluation disk to those of you interested at a nominal fee (refundable on purchase) very shortly. Call for information now.

We are now UK distributors for **SciFonts, ElecroFonts, LogiFonts, & QUED Editor** from **Paragon Courseware** We'll say more on this next month, but if you're in a hurry call !

Fluent Fonts & Fluent Laser Fonts from **Casady Company** are something else we're now distributing, so we think that together with **FONTastic, Fontographer, and Instant Art's font collections** we've got the font area pretty well covered!
It's rather dificult to explain **MacSpin** from D^2 **Software** in words. In fact, it's the most graphic, interactive, immediate way we've ever seen to present data, and it'll be here soon. In a similar vein, we think that **Cricket Graph** is the clear leader among the graph programs now available, and we'll have that one here for you any day now.

Last to be mentioned here, but certainly not least, is the **TML Pascal Compiler.** This is the first native code Pascal compiler for the Mac, and at only £90 is a real bargain. TML have created a complete development system, and when bought together with the **TML MacLanuage Series Development Tools** you have got yousetf a full commercial development system.

Name of Program	Price	Qty	Cost
....	£........	.....	£.........
....	£........	.....	£.........
....	£........	.....	£.........
....	£........	.....	£.........
....	£........	.....	£.........
SUBTOTAL			£.........
SHIPPING & HANDLING			£.........
VAT (15%) (UK Sales only)			£.........
TOTAL DUE			£.........

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MacSerious Software

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Also at: 655 John Muir Drive E411 San Francisco CA 94132 USA Phone 415-239-5357
Triererstrasse 8, 5517 Wincheringen, West Germany Phone 06583-1371

HERTS AND BEDS GROUP :
CONTACT - Norah Arnold, [illegible]
Meets at 8.0pm 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]
Meets at 7.30pm on the third Thursday of every month.
VENUE - The Waddon, Stafford Road, Waddon, Near Croydon.

LONDON MACINTOSH GROUP
CONTACT - Maureen de Saxe, [illegible]
Meets at 6.0pm on the second Tuesday of every month
VENUE - Room 685, London University Institute of Education, Bedford Way, London, WC1

FURNESS GROUP
CONTACTS - Alan Curtiss, [illegible]
Tom Iddon, 0229-88408

ESSEX GROUP
CONTACT - Pat Bermingham, [illegible]
Meets on the third Friday of every month
VENUE - The Y.M.C.A., Victoria Road, Chelmsford

HANTS AND BERKS GROUP
CONTACT - Mike Hollyfield, [illegible]
Meets at 7.0pm on the second Monday of every month
VENUE - Bracknell I.T.E.C., Fitzwilliam House (3rd floor), Skimped Hill Lane, Bracknell

MIDAPPLE (West Midlands area)
CONTACT - William Watson, [illegible]
Meets at 7.0pm on the second Friday of every month
VENUE - I.T.E.C., Tildasley Street, West Bromwich

HARROGATE AREA
CONTACT - Peter Sutton, [illegible]

GLASGOW GROUP
CONTACT - Donald Davidson, [illegible]
Meets 7.30pm, 11th June
VENUE - University of Strathclyde, Livingstone Tower (Laboratory 5.01)

LONDON APPLE II GROUP
CONTACT - Abe Savant, [illegible]
Currently seeking a venue.

BRISTOL GROUP (B.A.U.D)
CONTACT - Mike Farmer, [illegible]
Meets on the 7th day of every month
VENUE - Bristol Maternity Hospital

LIVERPOOL GROUP
CONTACT - Irene Flaxman, [illegible]
Meets on 2nd Monday of month.
VENUE - 78, Victoria Road, Widness, Cheshire, WA8 7AR

NORTH WEST APPLE COMPUTER CLUB
CONTACT - Jim Rosco, [illegible]
Meets first Monday of every month
VENUE - Horse and Jockey Pub., Winwick Road, Warrington

MANCHESTER GROUP
CONTACT - Max Parrot, [illegible]
Possible change of venue and meeting time.

Copy Date for August issue is : 5th July.

Advertisers in this issue.

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$$\Gamma = E \oplus T \qquad FLAG = TEST \cap (DISPLAY \leq WIDTH)$$

(This was printed by Format-80 Scientific on an Apple Imagewriter)

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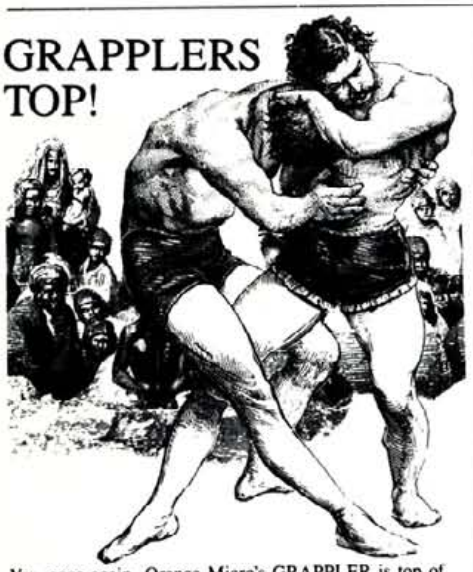
GRAPPLERS TOP!



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