Apple2000

THE NATIONAL APPLE USERS GROUP

FEBRUARY 1989 VOLUME 4(1)

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Apple2000
The All Apple
User Group
Committed to
All Apple Users
including Macintosh

Apple2000

February 1989

Apple2000
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Liverpool,
L21 8PY
[redacted]
Fax. [redacted]

CONTENTS

Editorial Shelf	Ewen Wannop	2
Letter Box		3
The IIgs Library	Ewen Wannop	6
Advanced Flight Trainer - Review	Robert Hornby	7
Pascal Power	Dave Miller	8
TimeOut!	Peter Davis	14
ChessMaster 2000	Dave Ward	20
ProDOS File Types		23
Linnet Modem - Review	Nigel Bradley	24
GS/OS	Dave Ward	26
HotLine News	Dave Ward	30
Technical TABBS		31
Workshop 2000		32
Cheats Corner	Len Cavanagh	33
Supersounds - Review	Paul Warwick	34
Falcon Tip		35
The Boffin Answers		36
The Nibbler		38
PlusDisk SC - Review	Ewen Wannop	40
MacChat - The New SE/30	Norah Arnold	42
Solitaire Royale - Review	Tom Wright	44
More on PT-109	Tom Wright	46
BETT 1989	Norah and John Arnold	47
Tetris - Review	Ceri Fisher	50
ImageWriter LQ Tech Ref Manual - Review	Geoff Wood	54
Quarterstaff - Review	Angela Wright	56
Browser & Theldrow	MacLibrary	60
Anti-Virus Program Screen Dumps	MacLibrary	61
Network News		62
Maze Survival - Review	Angela Wright	66
MultiFinder revisited	Technical Note #205	68
FAXstf™	Peter Bradley	70
Outside Bug Reporter	Apple Computer Inc.	72
MacLibrary		76
UserGroups	John Lee	78
Members' Small Ads		80
Advertisers' Index		80

Apple2000 supports users of all the Apple computers. The ITT 2020, I, II, II+, //e, //c, IIgs, ///, Lisa, XL, Mac 128, 512, MacPlus, SE, SE/30, Mac II and IIx.

Contributions and articles for the magazine are always welcome. We can handle any disk size or format. Please send to the PO Box.

NOTE:
In general, the front half of the magazine is for the Apple II, Apple IIgs and Apple ///. The back half of the magazine is mainly for the Macintosh and Lisa. Look out for the descriptive page icons.

Key:

Apple II, //e and //c

Apple IIgs

Macintosh, Lisa

Macintosh II

There are a number of ways to contact Apple2000.

Force users who have a query about the service can contact the administrator, John Lee, directly for help and advice. Call him on the number opposite or send a message to his box on the Force.

If you wish to order goods or services from Apple2000, call Irene on [redacted] or (during office hours) call Alison on [redacted]. Both have Ansafones, in case they're not around. Alternatively you can Fax. to [redacted], write to the PO Box or (if you use comms) you can leave orders on TABBS addressed to the SYSOP.

If you are experiencing problems with Apple hardware or software Dave Ward runs the Hotline and will get you out of the mire.

We are very interested in the activities of local user groups, and if you have any information which you would like publicised John Lee would like to hear from you.

Moans and Groans - We don't get many of these, but Mick Knapp has broad shoulders (and stomach, and thighs...) so send these to him via the PO Box.

A little praise for a few of our authors wouldn't go amiss. Send all comments via the PO box, especially suggestions about what you would like to see in **your** magazine.

Contact Points

The Force
John Lee
Voice [redacted]

Administration
Irene Flaxman
[redacted]
Fax [redacted]

Adverts / Admin.
Alison Davies
[redacted]

Hotline
Dave Ward
[redacted]
Mon-Fri 1900-2100

TABBS
Ewen Wannop - SYSOP
Modem [redacted]

Local Groups
John Lee
[redacted]

Editorial Shelf

It seems no time since the AGM last year, yet here in February we are making plans for the next one. Details of the AGM will be found elsewhere in this issue. If you plan to be nominated for the committee, the forms will be included in the March Slices as will Proxy voting forms. We have found a suitable venue near to the M1 and M25 that will suit the majority of our members.

However, now is the time to think about being involved in the group. We have grown steadily since this time last year, consolidating both the Apple II and the Mac sections, and with a sprinkling of other machines in there as well.

The work done by the committee and helpers, both in producing this magazine, running the hotline, the bulletin board, the libraries and the services, is entirely voluntary. We are committed to helping each other, spreading the Apple gospel and generally advancing the cause of microcomputing. We need helpers to add to this team. In line with our expansion we would like to expand the services we offer. We can only do this if we have more expert help. We need people experienced in DTP to help with the production of the magazine in all its stages. With enough help, we might even become a monthly!

Think about standing for the committee, or offering your services in the cause. We can offer you nothing but hard toil and the satisfaction of helping others. In return we would expect a high level of commitment, professionalism and experience. If you remember, once upon a time you were inexperienced. It was through enthusiasts such as those at Apple2000 that you were able to gain the experience you now have. Help us share that experience with others.

I hope that the present committee will be able to continue the work they have been doing over the past year. However, I would like to see the group expand both in membership and involvement. This is even more important now that we are the only independent magazine published for the Apple in the UK. We have no commercial interests apart from a commitment to our members.

Ewen Wannop

Annual subscription rates are £25.00 for UK residents, £30.00 for E.E.C. residents and £35.00 for other overseas members.

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The Editorial team is:

Apple II	Macintosh
Ewen Wannop	Norah Arnold
Mick Knapp	Irene Flaxman

Many thanks to all those who work behind the scenes and who receive no personal credit. These people are the stalwarts of Apple2000.

Additional thanks to Walter Lewis of Old Roan Press (051-227-4818) for our printing service, and to Ian Sharp of Sharp Studios (051-227-2788) for our cover design. (Graphics for the cover design supplied by Apple Computer UK Ltd, Adobe Systems Inc., Electronic Pen.)

Apple2000 are Founder Members and Wholehearted Supporters of the **Apple User Group Council**

Apples Work

Open-Apple is Tom Weishaar's monthly newsletter for knowledgeable Apple II users. It's thin but packed tight with Apple II lore, humor, letters, tips, advice, and solutions to *your* problems. Compared to other Apple II publications, ***Open-Apple*** has the highest new-idea-per-issue ratio, the clearest writing, the funniest cartoons, the longest index, the best warranty (all your money back if you're not satisfied), *and* it takes up the least shelf space.

II cue #58

There are four primary types of Super-High-Res graphics files. Three are $C0 or PNT types; these are 'packed' so they take up less room on the disk. Type $C1, or PIC, is an unpacked 32K snapshot of the graphic. The three packed types are distinguished by the following subtypes:

```
0  Fairwords format
1  PackBytes (Eagle) format
2  Apple Preferred Format (DF II)
```

For more, see the April 1988 ***Open-Apple***, page 4.24.

From our fan mail:

I have never enjoyed reading any magazine so much as ***Open-Apple***. I like its style. The information each issue provides is amazing. With almost every issue that I read I keep shaking my head and muttering 'I didn't know that!'. If only I knew about ***Open-Apple*** earlier, I wouldn't have subscribed to *A+*, *Nibble* and *inCider*. They aren't bad, but compared to ***Open-Apple***, they are nowhere.

Zainudin Hashim
Kuala Lumpur, Malaysia

Open-Apple
POB 7651, Overland Park, KS 66207

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Letter Box

10 Letchworth Close
Bromley, Kent

Dear Editor,

Congratulations on another excellent issue of Apple2000. The standard is consistently high and there is a very good relationship between yourself and the readers.

There are a number of points in the December issue which I would like to comment upon. I was very interested in Ewen Wannop's comparison of Springboard Publisher and Publish It!, but puzzled by his comment that you cannot create columns or text boxes in Publish It! with any ease to any size, and that once a box is drawn, the 'handles' will not change the size of that box. I have never experienced problems creating boxes either by eye or using the Object Specifications dialog box to see the dimensions in inches to three decimal places. I also frequently change the size of my boxes, again without difficulty.

My only real criticism of Publish It! is that fonts do not have £ signs or characters with accents. I often have to produce notices with signs and for these I use GraphicWriter 2. The drawback of the latter is that I cannot incorporate graphics into my notices, as there does not seem to be a way of converting PrintShop pictures to high res screens for use with the program. I bought the excellent The Graphic Exchange from Roger Wagner Publishing, which claims to convert to GraphicWriter format, but perhaps they mean GraphicWriter 1. I use my Printshop pictures with Publish It! all the time and conversion with TGE is a piece of cake. If someone has the time to write an article comparing Publish It! and GraphicWriter, that might be useful.

Mr Wannop's article refers to interchangeability of fonts and states that all the fonts in the GS library can be converted for use with Publish It!. I already use my Publish It! fonts with Superfonts and the Superfonts with GraphicWriter, but I should very much like to know how to convert the GS fonts for use with Publish It!, please. Do I have to buy special software for the purpose?

Lastly, I fail to see why your correspondent, Bill Pearce, should get so worked up about Spelling Checkers. I used Sensible Speller for about four years, as well as the built-in spelling checkers with MouseWrite and Word Perfect, until the incredibly fastTime Out QuickSpell came along. I use the speller mainly to pick up typos rather than to check spelling as such, as I constantly find myself typing 'thye', 'thta', 'educaiton' etc. and the speller inevitably picks these up. I also like the double word feature, which picks up such errors as 'and and' in a sentence. I accept that a spelling checker has limitations, but within those limitations it is a very useful tool.

Bob Symonds

Introducing **PlusDisk SC**
the first completely electronic disk drive for the Macintosh

PlusDisk SC is a major leap forward in storage technology. It combines the lightning-fast performance of an internal RAMDisk with the permanent storage and convenience of a Hard Disk. Unlike a RAMDisk, **PlusDisk SC** doesn't use any precious internal memory. Unlike a Hard Disk, **PlusDisk SC** has no moving parts or noisy fans and consumes virtually no power (it uses a small mains power pack when in use). **PlusDisk SC** easily **outperforms** all other disk drives *(PlusDisk has an access time of ZERO Milliseconds compared with 70 Milliseconds for the average Hard Disk drive)!* **PlusDisk SC** is 100% compatible with ALL Mac software and SCSI utilities.

PlusDisk SC totally eliminates disk delay frustration forever! Starting up applications takes only a fraction of the normal time (eg Excel or Word in under 5 seconds). Quit any application to the desktop in *less than 1 second!* Because the Mac spends a large amount of time on disk-based operations, **PlusDisk** accelerates total system performance to a higher level.

PlusDisk SC has an inbuilt power source to maintain your data in special fast access, low-power RAM chips for ultimate reliability and superior performance. The power source is recharged automatically when you use PlusDisk. Even if PlusDisk is not in use or plugged in at the mains, its contents are fully protected for a minimum of 3 months, effectively making it a permanent storage device!

PlusDisk SC connects straight onto the SCSI port on any MacPlus, SE or II. It comes complete with 1 Megabyte and can be expanded at any time, using plug-in 256K modules, right up to 4 Megabytes.

ADD THE LIGHTNING TOUCH TO YOUR MAC WITH PLUSDISK SC
from £348.00

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Telephone: (0896) 57790 Telex: 265871 (MONREF G) ATTN. 84: CPD 001 (Telecom Gold)

❑ I am not as experienced with Publish It! as Bob is, and so missed some of the things it can do. I think this points up the faults of Publisher even more. I have had some feedback from members who have bought Publisher and they agree with my findings. The launch of AppleWorks GS with its Page Layout feature, has made Publisher look even more silly. AppleWorks GS can paste and alter text faster than either of the two other programs.

The standard GS/Mac fonts often have the £ sign in the wrong place. There is an Apple IIgs utility available on TABBS that will swap characters within a font. We as yet do not have a full font editor for these fonts to run on a II. Any programmer out there interested?

There is also a utility on TABBS to change file types. This will change the files to type $F7 for use with Publish It! There are other programs around that can alter the directory file type, or if you know what you are doing, you can change with a disc zap program like Bag of Tricks or Copy II+. (These utilities find their way onto TABBS first, and when a diskfull is ready they are released into the libraries).

Ewen Wannop

Berthold Instruments (UK) Ltd.
35 High Street, Sandridge
St. Albans, Hertfordshire

Dear Sirs,

My company still maintains and services a large number of Apple systems which are installed and used at our customers' premises.

We are having great difficulty in purchasing replacement Titan Accelerator cards at the present time and would be grateful if you could let us know of any companies that still sell these cards.

JW Newell
Service Manager

❑ Can anyone out there help? The cards exist in two forms, for the II+ and the //e. As far as I am aware they are discontinued. Ed.

[illegible]

Dear Sirs,

I cannot praise AppleWriter WPL enough!

I have an extensive suite of AppleWriter WPL programs which provide a very high degree of automation for the preparation of Specifications for Minor Building Works.

I have developed sophisticated routines for creating contents pages, for sequential outline numbering of edited text. The entire specification is printed out on our LaserWriter via AppleTalk!!

I also have a large number of 'patches' for the ProDOS version of AppleWriter: these can give position of cursor in a line, enter date and time in body of a document, calculations, increased number of variables etc., etc.

It is not an exaggeration to say that, as a committed Mac-User, that AppleWriter WPL is the only reason that I keep the IIGS!

MP Scott

❑ And some people would say the Apple II is dead! I think this sums up the power of the two machines, and the reason why Apple2000 have always been committed to the whole Apple range. Ed.

Microsoft Limited
Excel House
49 De Montfort Road
Reading, Berkshire

Dear Mr Hobson,

Thank you for your recent correspondence regarding Microsoft Word for the Apple Macintosh computer. As requested here is an explanation of the issues you raised:

Pricing differentials between the US and other countries will always be an issue where you have product to import, a series of distribution points to support and a reseller channel that needs a margin to sell and support our products. Those are the facts of life.

When Microsoft Word version 3.01 (both US and UK versions) were first released, the ImageWriter LQ printer had not yet been marketed in either country. As soon as Microsoft gained the necessary technical information from Apple Computer, our development staff put together version 3.02 in the United States which addressed compatibility with this printer. The new version was not shipped directly to every registered user, since the changes in the program were minimal and effected very few customers - only those who owned the printer hardware in question. Both in the US and the UK this product was made available free of charge to any registered user requesting it. Microsoft feels that this policy has created the least confusion for our customers, since the large majority of them were not affected by the update.

In regards to the inconvenience of the need to hold the Shift key when selecting various printing parameters using the Print and Page Setup commands, this is an interim solution that allows our customers to use this printer with the current software, and will be addressed in version 4.0 of Microsoft Word. Technical information on the ImageWriter LQ that would have prevented such an inconvenience was not available at the time that version 3.0 was being developed in 1986.

Microsoft decided at the time Word 3.0 was first available, to include a System Folder on the disk in the product. This was for the convenience of our customers who use floppy disk drive systems. The need for this has become less over time, as fewer Macs with this configuration are sold. It is now no longer the policy of Microsoft to ship a System with their applications. However this will not completely take effect until we receive new versions into our warehouse.

Microsoft is aware of the problems you mention with the inconsistency of the thickness of printed lines when using boxed paragraph formatting and vertical line tabs. Improvements in these areas are being considered for a future release of the program.

We also appreciate your suggestion regarding the Number Lock function. It is important that the user be able to view page numbers and other information, whether or not the keypad is being used for entering numbers or cursor control. You also mentioned that your cursor keys were not working when the keypad is operating in Number Lock mode. We have been unable to reproduce this problem with Version 3.01 (British) or 3.02 (US) and are a bit puzzled by your problem. If you have not resolved this trouble, please call our Technical Hotline and one of our staff will assist you.

Mr Hobson, the above are answers to the issues you raised. Microsoft does try to provide the best products to it's Mac customer base. Yes, we can always do a better job and you letter is a reminder of that fact.

David Svendsen
Managing Director

❑ This is the reply that Simon Hobson received from Microsoft. We promised Simon that we would publish any reply he got . Ed.

[illegible]

Dear Apple2000

Just a note with my subs to encourage those who are working to put more form and structure and purpose into Apple2000. For real amateurs there need be no purpose - they can get drunk on terms and expressions which mean little to outsiders. I am not an amateur. I am a user who needs quick sharp reference on products and applications.

It is worth almost as much to me to find out that I need not bother with a piece of kit, or that it is desirable but incompatible with my own machine, as it is to find a real gem of software that makes life easier.

In practical terms the latter is getting harder to achieve. I use Format 80 Enhanced WP and Microsoft Multiplan for spreadsheets. I could be interested in an eventual upgrade for my //e via the PC Transporter but I would like to hear a lot more about

other users successes before taking any action myself since I'm only interested in a no-hassle upgrade.

Oddly perhaps I didn't go for AppleWorks because I had tried AppleWriter and didn't like it, and when I tried one of the earlier versions of AppleWorks found the spreadsheets less practical than Multiplan (just a subjective view).

Please keep up the tests and don't hesitate to define terms for those like me who do not eat sleep and live in an Apple environment.

Happy and successful New year to you all - keep up the good work.
Bob Wileman

❑ A fan ... Bob has understood what Apple2000 is all about. We do plan to continue improving, and we do have ideas for the future. Ed

---

[redacted]

Dear Editor,

May I sound a note of warning regarding the Apple //c.

I have been a satisfied user here in Guernsey of an Apple //e for some years, but since I spend a part of my time in Teneriffe, I decided to buy a //c for use there.

Not trusting servicing arrangements in Teneriffe I chose the //c since it would be easier to transport back to Guernsey for repair. This has been necessary twice.

The first time it was a faulty ribbon cable from the keyboard. Because this is soldered at the keyboard end I was given a new keyboard at £99.49.

The next problem was a faulty RAM. Again this was soldered to the board so I was given a new board at £107.49.

I can understand that with the high cost of labour, replacement of a major unit may be less expensive than a repair which could require a significant number of man hours. However, it seems to me that the design lacks forethought if it necessitates a major replacement due to the failure of a minor component.
Alan Shipley

❑ Apple assume that their computers will never break down. Very little is now socketed on the motherboards of any of the current machines.
There is a need for those dealers who can repair machines to make themselves known. Some do in fact advertise in the magazine, but I am sure there are others around.
I am shocked at a price of £107.49 for a new motherboard. Bidmuthin advertise a replacement unit at £81.49 + VAT. It is a very easy to change units, one screwdriver and a few minutes are all that is necessary. It can't cost £20.00 or so for labour can it? Bidmuthin are an Apple Level 1 Service Centre and can supply exchange units for all Apple machines. Ed.

Cork Regional Technical College
Rossa Avenue
Bishopstown
Cork, Ireland

Dear Sir,

As a new member to your organisation I was very pleased with the amount of bumph that I received. You certainly seem to give good value for money. Thank you.

I am involved in administration in a College that caters for about 2000 full-time students and around the same number of part-time students. In my office we have a small network of four Mac Plus's and an SE running under AppleShare with 60 mb hard disk. I am not computer literate (which is why I use a Macintosh) and computer jargon makes my eyes go funny. I really don't care what happens under the bonnet as long as I get the job done.

I would be interested in getting information about Educational Administration i.e. Class/teacher timetabling, rooms scheduling, student records etc. At the moment I use FileMaker 11 which is a superb database, but I feel that there must be some dedicated software packages out there which would do the job.

Can you help, please? Can anybody help and earn my undying gratitude? I wait with hope.
E P O'Connor
Senior Staff Officer

❑ As usual, I ask you all if you can help solve the problem outlined here. Ed.

[redacted]

Dear Mick Knapp,

I read with interest your editorial on Apple's attitude to the Great British Public.

Whilst Apple's policy is fully in accordance with the general outlook in the UK of grab as much as you can and the devil take the hindmost, it's not one too which I subscribe. It is a disgrace that one can buy Apple computer goods, pay Air Freight, VAT and Customs charges on them, and still beat Apple's UK prices by a considerable margin. In my experience, Apple's much vaunted Dealer Network is nothing but a sick joke to the home computer user. Apple Computer Inc. should change their name to Mammon Inc. as being a better description of their activities.

I managed to get my 128 mac upgraded to a 512/800 model a couple of years ago, and I would dearly like to upgrade to a model with colour, but there is no way that I, as a pensioner, albeit with a modest work's pension, could afford Apple's fancy prices. It is almost certain that I shall have to move to one of the better grade colour computers now available and relegate my Mac (if I can afford to keep it!) to tasks which do not require colour. Shame on you, Apple.
John Stanier

❑ We are constantly told that the dollar for pound price relationship is to cover the costs of shipping and distribution. The machines however are made in Ireland. Surely the cost of labour is not higher there than in Cupertino!

I know quite a few copies of this magazine find their way to Hemel Hempstead. How about a reply to John Stanier's letter from Head Office? Ed.

[redacted]

Dear Mr Knapp,

I was very pleased to receive your information about Apple2000 and would very much like to subscribe to your magazine. I was very pleased to read in your letter that you are prepared to offer me the subscription at the reduced price of £15 as I am disabled.

I am looking for articles relating to the Apple][hints with programming techniques and ideas, and perhaps the occasional utility program. Unfortunately I am not yet convinced that there would be enough material in the magazine which would be suitable for use with a 48K Apple][Europlus. The issue before me (June 88) which you kindly sent me contains just one letter from someone with an Apple][asking about an 80 column card.

As you know, Windfall had a lot of useful items for the Apple][and so did AppleUser in its earlier years. It is sad that such an excellent machine should be just forgotten, better for nothing else than the dustman. Surely this cannot be right? If you can convince me that normally there is a fair number of items for the Apple][in your magazine then I am keen to take a year's (or longer) subscription. As I am home and cannot get out at all I am really looking for something that could replace the personal contact which I would normally have with Apple][users.
Heidi Schmitz

❑ We offer a reduced subscription to the disabled, old age pensioners, students and UB40 holders, just send us a photocopy of proof with your subscription.

The amount of material for the Apple][varies from issue to issue. We do try and cover all machines with some balance, but it does depend to some extent on the level of contributions. We must cover the newer machines as well as the old, and eighty pages is already not enough to publish all we receive! I plan on re-printing some of the old Hardcore material when time and space allow. Ed.

The IIgs Library

Ewen Wannop explains how to use the disks in the IIgs library

The GS Library

The disks in the GS library, except for the System 4.0 disks, are not bootable. They simply contain files and folders. This has confused some of the newcomers to the GS, who are used to booting a disk to see what it contains or does. This guide to 'how to use GS disks', is aimed at those users. It is an explanation of how to use the Finder, and how to run programs on the GS.

The GS Finder is very like the Macintosh Finder, and allows you to do your file maintenance and disk filing from its desktop interface.

System 4.0

The new system disk is a departure from earlier versions of the Finder. You need both the SYSTEM.DISK and SYSTEM.TOOLS to install working disks or to install System 4.0 on a hard disc. It is not intended that you use the System disks for everyday use, they are only used for preparing working disks. You must have the revision '01' ROM to run the new GS/OS, and if you intend using a hard drive, you must have the revision 'C' ROM for the Apple SCSI card. Both these ROM's are available from your dealer on an exchange basis.

The following is a quick guide to installing with the new System 4.0 disk, a more complete 'Users Guide' should be available from your dealer shortly.

Single Drive Install

First boot the SYSTEM.DISK, and when you get to the Finder remove the disk by pressing the eject button on the drive. Now insert the SYSTEM.TOOLS disk into the drive.

Twin Drive Install

Insert the SYSTEM.DISK in Drive 1 and the SYSTEM.TOOLS disk in Drive 2. Boot the system from Drive 1

Running Install

Open the disk folder of the SYSTEM.TOOLS disk by double clicking on the disk icon. Run the file 'INSTALLER' by double clicking on its icon. You will see a dialog window open with a selection of 'Scripts' on the left and a standard file window on the right. You should now click on the 'Volume' button till you see the disk that you want to 'install' at the top right. You may need to remove the System disk from the drive and insert your formatted blank disk.

You will not be able to install on a hard drive immediately, ProDOS will not have seen the drive from the SYSTEM.DISK. You must install on a floppy or a /RAM disk first, and then install the hard disk after booting your newly installed disk.

Select 'Install Everything Possible' from the left window, and click on the Install button. Once the installation is complete, you may wish to select 'SCSI Hard Disk' to install on a hard drive and 'Apple Disk 5.25' if you wish to use a 5.25 drive.

This installed disk can then be used as your day to day system disk.

The Finder

This is your 'Launching Pad' for programs. All files are represented by an icon, though not all files of course are programs and can be run. This may seem confusing at first to see such an array of little pictures, but you will soon get used to what each icon means and which you can run and which you cannot.

You can 'grab' these icons and move them about. In this way you can move files from one folder to another, one disk to another or even put them into the 'Trash' to delete them.

Program icons are usually shown as a diamond with a hand, but may be specific to the program and so non-standard. All this confuses things further. To run a program, simply double click on the icon. No harm will be done if the file cannot be 'run'. In this case it will report the fact by a message 'An application cannot be found' and return you to the desktop.

File Types

The easiest way to find what kind of a file it is, is to click once on the icon. This will 'highlight' it and allow you to then go to the pulldown File Menu and select Get Info. You will then see all the information relating to that file. The 'Kind' field will show what kind of file it is.

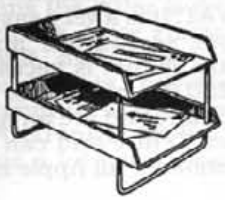
The Library Disks

In most cases, the files on the library disks have been placed or grouped into similar types. If there are a batch of files relating to one program, then these have been put into a sub-directory of their own. You will find many programs have a 'Read Me' or document file. To view these, use AppleWorks, a word processor or the program 'Showfile' from the library disk 2GS003. If you check against the following tables, you will be able to decide where to put the various files on your disks and how to use them.

Key to ProDOS filetypes [page 23]

Type:	Description of the file type
Mnemonic:	This is the file type as displayed by a Catalog
Code:	The actual ProDOS file type code
Application:	Will it run or not?
Folder:	Where can this file normally be found?
Notes:	Other relevant information about this file type

Ewen Wannop



Flights of Fancy

Robert Hornby reviews Chuck Yeager's Advanced Flight Trainer

Advanced Flight Trainer by Ned Lerner is one of the best flight simulators I have ever played before with good graphics. I started by looking at the manual which tells you all you want to know about the game. The manual has 45 pages and the things inside tell you all about flying a real airplane even if you are only playing a game.

The game self starts when you can choose what kind of flight you want, like obstacle course and racing. But I chose a normal flight which just started you off playing. After choosing your location you had to choose which kind of plane you would like to fly. You can choose from Blackbird, Spitfire the Camel and three experimental flight craft. I found that it was easy flying the Camel, but with every plane there is one hard thing to do and that is landing. I tried about ten times to land but without success, and every time I was greeted by a sorrowful face (Chuck Yeager's the ultimate survivor) "That's no way to land an aircraft!".

The one other good thing about the game was that you could choose other views besides the cockpit view like the chase plane view and overhead view etc. This about wraps up the game except for telling you about the graphics of the game the cockpit and the terrain. The cockpit was just the same as any other cockpit in other games with the altitude, your speed, your power and rudder indicator. The terrain was not all that interesting; all it was on one of the courses was big blocks standing out in the dark background which are easy to wind in and out of.

So that is all I have to say about the game.

Robert Hornby (age 11)

info

Product : Chuck Yeager's AFT
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(0233) 83571
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Value :
Performance :
Documentation :

PASCAL POWER

Dave Miller continues his major series on languages with one of the crucial developments of the last twenty years

In this instalment I shall cover one of the most successful of the languages developed from the ALGOL-60 family: Pascal.

Pascal was developed mainly by one man: Professor Niklaus Wirth. Originally Wirth proposed a successor to ALGOL-60, called ALGOL-W but this proposal failed. ALGOL-W was developed into Pascal, so called after the French scientist Blaise Pascal, and was publicly announced in 1971.

Wirth tried to develop a language which was primarily designed for teaching the concepts of programming. Thus the language required some structuredness and data-handling capacity but had to be relatively simple and, very importantly for computers in the early 1970s, had to place the minimum of burden on the computer's resources.

Wirth saw in ALGOL-60 the germ of a language ideally suited to the above criterion. What Wirth did to ALGOL-60 was to simplify some of its structure and syntax. The result was a langauge which was, in some ways, less powerful than ALGOL-60 but, importantly, far easier to use.

Pascal compilers generally placed a lighter load on the computer than ALGOL compilers. This is important because in a learning environment, such as a computer being used by programming students, the compiler will be used often. ALGOL compilers had (and still have) the reputation of being memory and CPU hungry. Pascal compilers were designed with efficiency in mind: any Pascal compiler can theoretically be a one-pass compiler. This means that the source code has only to be scanned once to achieve compilation. Many other languages, ALGOL included, require multi-pass compilers which can be much slower.

The disadvantage of a single-pass compiler is that the produced machine code is seldom optimised because many optimisation techniques require at least two passes of the source code. This did not bother Wirth because students would most likely be writing relatively short programs with little scope for optimisation.

Language structure

Since Pascal is devloped from ALGOL-60 I shall refer to ALGOL-60 in dealing with Pascal's structure (see the June and August editions of Apple2000 Magazine).

❑ Source format

Pascal adopts free-format source files. Unlike ALGOL those messy primes are not required to delimit keywords. Spaces are used. Primes were, and still are, a major headache for students (and experienced programmers!).

Pascal is case insensitive so keywords and variables can be written in both upper and lower case although the latter is more common.

❑ Variables

Pascal has five base types of variable: integer, real, Boolean, pointer and char. A pointer is a variable which points to some other data item in memory (it contains the address of the datum being referred to). Pointers are very useful because they allow very complicated data structures to be built up and modified dynamically. A "char" is a single character. This is augmented by user-definable types.

Variables can be grouped into arrays, sets and records. The latter is a very powerful feature which allows for complicated data handling.

e.g. some simple variable definitions:

```
i: integer;
r: real;
b: Boolean;
c: char;
```

Arrays can be defined easily:

```
vector: array [1..20] of integer;
matrix: array [1..10, 1..10] of real;
```

"Vector" is defined as a one-dimensional array of integers dimensioned from 1 to 20 and "matrix" is defined as a two-dimensional array dimensioned from [1,1] to [10,10] fo reals.

Some unusual array definitions are allowable:

```
oddarray: array ['A'..'Z'] of Boolean;
```

This defines a Boolean array which is indexed using characters, not integers. In fact, Pascal allows

any 'discrete type' (i.e. anything except reals) as indices to arrays:

```
Boolarray: array [Boolean] of integer;
```

This array has two elements: "Boolarray [true]" and "Boolarray [false]".

Arrays can be packed. Pascal then reduces the amount of storage used to a minimum. The most common use of packed arrays is to provide character strings:

```
 string:  packed  array  [1..80]  of  char;
{this takes up 80 bytes}
 string:  array  [1..80]  of  char;
{this takes up 80 WORDS, not bytes}
```

Note that on most implementations of Pascal, a word is taken to be two bytes although on some minis and mainframes a word can be upto eight bytes. The first of the above arrays takes up 80 bytes whereas the second takes up 80 words. Even though the second array requires more storage it can not store anything but characters, which are by definition 7- or 8-bit numbers (i.e. byte-sized (!)). The extra bits in each element are wasted.

Records group seperate data items together and allow the complete item to be accessed as a whole:

```
group: record
         number: integer;
         string: packed array [1..80] of char
       end;
```

Note the unmatched "end" to terminate the record definition.

This defines the variable "group" to be a record having two components: a number and an 80-character string. Accessing "group" refers to the whole record but "group.number" refers to the integer number and "group.string" refers to the character string.

Records can be packed in the same way as arrays. The keyword "packed" is placed before "record" to indicate a packed record.

Although sets are a very interesting feature of Pascal, they tend not to be used often and are quite complicated so I shall not cover them here.

❑ Statements

As with ALGOL, the semicolon is used to seperate statements, not to end statements. The keywords "begin" and "end" are not regarded as statements and so do not require semicolons.

Pascal has a rich set of statements:

1 Declaration statements

These are used to define labels, variables and constants:

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{this is a comment - the following code fragment is a typical declaration section of a procedure}
(* this is another type of comment designed for terminals and computers without braces - both are valid *)

```
label {define two labels}
    1, 2;

const {define some constants - these can not be changed}
   pi = 3.1412;  {define the value of pi}
   hi = 'Hello'; {define a text string}
   n  = 2;

type {define two user-definable types}
   colour = (red, blue, black, white);
{define  some colours}
   byte   = 0..255;
{define a subrange of integers}

 var
 int1, int2: integer;          {define 2 integers}
 r         : real;             {r is a real
                                variable}
 flag      : Boolean;          {flag is a Boolean
                                variable}
 string    : packed array [1..20] of char;
                               {20-element
                                character array}
 col         : colour;         {declare a colour
                                variable}
 location  : byte;             {declare a byte}
```

Note the declaration of "col" and "location". These are defined via user-defined types: "col" can be assigned any of the following values "red", "blue", "black" or "white" and "location" can be assigned any integer in the range 0 to 255. Any other assignment will cause an error to be raised.

An integer subrange such as 0 to 255 has the added advantage in that many compilers will actually reduce the size of "location" to just one byte (since 255, the maximum value, requires only eight bits of storage). Such subranges are useful when declaring variables of a fixed size.

Also note the order of the statements: label definitions come first, then constants, then user-defined types and then variables. This order must be followed although some sections may be omitted (labels are not commonly used and are usually omitted).

In Pascal everything has to be predeclared before use.

2 The assignment statement

This is the same as in ALGOL:

```
int1 := 2;
r    := 3.4;
flag := true;
c    := 'a';
col  := blue; {see above}
```

3 The GOTO statement

Believe it or not Pascal actually supports the GOTO statement but it does so rather grudgingly! Unlike ALGOL, Pascal's labels are numeric only, like FORTRAN's. This is purposefully done to make using GOTO as unpleasant as possible! Many compilers will to their upmost not to accept GOTO statements.

```
1: n := 3;
   ...
   goto 1
```

The label "1" must be predeclared.

4 The IF statement

This is straightforward:

```
if a > 2 then
   dosomething
else if v < 32 then
      dosomethingelse
   else
      dosomethingdifferent;
```

5 The FOR statement

This has been simplified from the ALGOL equivalent:

```
for i := 1 to 50 do
   countup;
for i := 40 downto 2 do
   countdown;
```

These are the only two valid FOR statements in Pascal. Note that the increment is always one.

6 The WHILE loop

To make up for the rather week FOR loop Pascal provides this powerful looping structure:

```
while n > 3 do
   loop;
```

The statement "loop" is performed while the condition "n > 3" remains true. Note that the condition is tested before the loop is entered so there is a chance of "loop" not being executed.

7 The REPEAT...UNTIL loop

This is a strange construct because it automatically includes a compound statement definition. All the statement(s) in between the "repeat" and "until" are executed while the condition remains false. The test is performed at the end of each iteration:

```
repeat
   loopa;
   loopb {note ";" is not required between
          the "loopb" and "until"}
until n <= 3;
```

Looping continues until the specified condition becomes true. Note that this is not equivalent to the above WHILE statement.

8 CASE statement

This allows several options to be performed depending upon the state of a test variable:

```
case x of
   1:          xis1;
   2:          xis2;
   3, 4, 5: xis3and4and5;
   6           xis6
end;
```

Note the unmatched "end" used to mark the end of the CASE statement. What if x is less than 1 or greater than 6? Well standard Pascal does not cope with this and performs an "undefined operation" but many versions of Pascal adopt one of two approaches: one is to skip to the next statement and the other is to provide an "otherwise" option which can be selected by default:

```
case x of
   1: xis1;
   2: xis2;
   otherwise
      xissomethingelse
end;
```

☛

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9 Subprogram calls

To call a subprogram (i.e. a procedure or function), its name is placed in the code as if it were a keyword. Parameters are placed in brackets after the keyword.

As in everything else, a subprogram has to be declared before it can be called.

Pascal supports call by value and call by reference parameters. In the former, the value of the parameter is given to the subprogram only whereas in the latter the address of the variable is passed. Thus only call by reference parameters can be modified by subprograms.

All parameters are call by value unless marked by a "var" (meaning variable parameter) in the parameter list, in which case they are call by reference:

```
procedure add (a, b: integer; var c: integer);

{read "a" and "b" only but read and write
                                    to "c"}

begin {"begin" marks the start of adds's code}

   {add two values together}
   c := a + b

end; {"end" marks the end of add's code}
```

This is called:

```
add (1, 2, result)
```

If add were an integer function then it would be defined thus:

```
function add (a, b: integer): integer;

begin

   add := a + b

end;
```

This is called:

```
result := add (1, 2)
```

❑ Compound statement

Pascal retains the ALGOL compound statement but its use has been severely limited. It can be used for two, and only two purposes:

1. to group the code for a procedure/function/program together

2. to force looping and selection constructs to operate on more than one statement.

Compound statements can not be placed in the code except for the above two reasons.

❑ Blocks and dynamic variable allocation

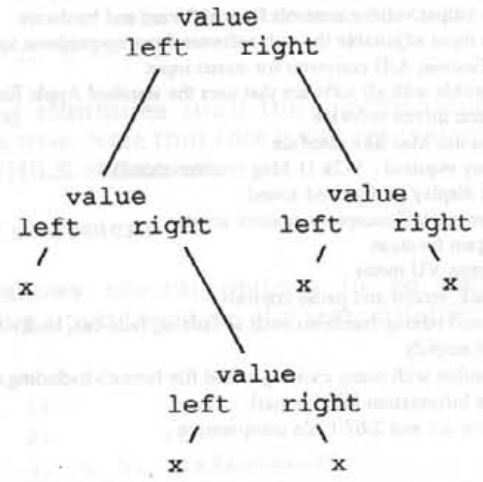
Pascal does not support ALGOL's blocks but dynamic variable allocation is supported insofar as each procedure and function's local variables are dynamically defined on invocation. Dynamic data structures can be built up via the pointer type. In-code variable declaration, via blocks, entails a considerable overhead in both compilation and program execution and its absence is not really missed apart from the ability to define arrays dynamically: Pascal can not do this but ALGOL can.

❑ Recursion

Recursion is supported in Pascal. Subprograms can be called recursively and the language can be described in a recursive fashion (refer to June's edition of Apple2000 Magazine). Pascal, though, takes recursion one step further. The data structures provided by Pascal can be recursive.

Consider a "node". This is a data item which has three elements: a value, and two pointers. These pointers can be used to address other nodes, one to the node's "left" and one to the node's "right":

<it would look nice if this diagram were produced with straight diagonal lines!
I know... he's never satisfied!!>



Here we have four nodes linked in this manner. The "x"s indicate pointers which do not address anything (called nil pointers). Now consider this structure from the view point of the top-most node. Its pointers address two nodes "under" it. The node on its "left" also addresses a node but this time to its "right". The other two nodes address nothing.

This is a specific way of describing the above structure but a generic description is also possible. This structure can be one of two things: nothing at all or a node which can address other structures of the same type as this one (notice the recursive definition?). To formalise this in BNF (see June's instalment if you are not familiar with BNF):

```
structure :== nothing | node + two substructures
```

Apply this to the above structure and you will see

that it is correct: each sub-structure is, in effect, exactly the same as the whole structure, as far as this description goes, and, from the view point of any node, its sub-structures can either be nothing at all or other nodes with their own sub-structures!

The thing to note here is that this description does not give any information about the exact arrangement of the structure, it only informs us of the way nodes can be arranged in relation to each other.

This structure is called a Binary Tree, so called because it is a tree-like structure which splits into two subtrees at each node. It is used for many purposes including sorting and searching. Compilers use binary trees to store the structure of the code during conversion from source to object.

The Pascal statements to define a simple binary tree are as follows:

```
type
    nodepointer = ^node; {point to a "node"}
    node        = record {this is a record - a
                          grouped set of
                                variables}
                  value: integer;
                  left,
                  right: nodepointer
                end;

var
    tree        : nodepointer;
```

The "^" indicates that the pointer is to address a "node". Note that "node" has not yet been defined. This does not matter because all pointers are the same no matter what they address, the compiler remembers that the pointer addresses a "node" and performs the relevant processing once "node" has been defined. This is the only time in Pascal where an undeclared item can be referenced.

The variable "tree" is a pointer to the first node, which is defined dynamically as and when necessary. The tree is grown by creating new nodes and linking them to the nodes directly above them in the tree structure.

❑ Conclusion

Few can doubt that Pascal is a success well beyond the limited scope at first envisioned by Wirth: it has spread from a language used for teaching programming to a fully-fledged programming language. Its success is two-fold: it is far simpler to use and implement than ALGOL and the features that it lacks are far outweighed by the features added.

Pascal is a practical language, designed to be easily taught whereas ALGOL-68, the other notable direct offspring from ALGOL-60, is designed as a mathematically correct language. The differences between the two languages are extreme. ALGOL-68 is "orthogonal": i.e. rules apply to the whole language, without exception. Pascal is a far more useable language although being distorted and unorthogonal (regard the implicit compound statement definition in the REPEAT UNTIL loop or unmatched "end"s required in CASE statements and records).

Many of the features offered by Pascal are not new and ALGOL-68 can do everything that Pascal can but to do so calls for some thought by the programmer. Some say that had ALGOL-68 been released earlier, or had Pascal been available later, Pascal would not enjoy its success. I feel that Pascal would have superseded ALGOL-68 irrespective of their relative release dates.

Pascal embodies the "small is great" philosophy and its success indicates the value of a concise and well-planned programming tool rather than a sprawling monster of a language (the irony of this fact will become clear when I cover Ada, the new real-time and defence applications language).

Pascal docs, though, have failings: standard Pascal has no real character strings - just character arrays which are not the same thing and file handling, although better than ALGOL's, could still be better. Error handling in Pascal is sometimes a problem: errors explicitly cause run-time compiler errors in standard Pascal. This is okay when using Pascal in a teaching environment but it causes trouble when real programs are written needing special, application specific error handlers. The solution to this is usually different for every implementation of Pascal.

Some of these failings have been corrected in implementations such as UCSD Pascal, which offers the string type and improved and error file handling.

With a few exceptions, the ALGOL-style language is virtually monopolised by Pascal. One exception is a language which has become fashionable only in the last few years but has existed in its present form since the middle 1970s. It is a third generation product from ALGOL-60 and so shares many common features with Pascal but is also a very different language. This language is C and it is this language that I will cover in my next instalment.

Dave Miller

Editors' Note:

Dave Miller's article on C will follow in the June issue of Apple2000 magazine.

Pascal and C are the most important languages available for the Apple machines (with the possible exception of BASIC) and the majority of serious applications available were written in one language or the other. To keep you in the programming mood Dave Miller has provided an example Pascal program for the April magazine. This will illustrate fully the correct style and syntax for Pascal, and will provide a user defined dictionary application.

Pascal compilers are available for both Apple// and Macintosh computers from most reputable dealers.

TimeOut!

More Applications to Brighten Up Appleworks

Reviewed by Peter Davis

Times are Changing

My original assignment was to cover PowerPack, DeskToolsII, MacroToolsII and SpreadTools, but it needs to be said that superimposed on this review are other very significant changes, to AppleWorks itself in the form of version 2.1 and with that come changes UltraMacrosV2.2 and TimeOut itself in the form of version 2.1. Still more there is the problem that SpreadTools did not arrive in time to be included, so perhaps next time.

In the main, all the initial testing and evaluation of these new packages was carried out using AppleWorksV2.1. Later on small difficulties with MacroToolsII convinced me that I should revert to with AppleWorksV2.0 but it should be accepted that with the exception of MacroTools II, all the packages perform perfectly with AppleWorksV2.1.

The step required to make the change from AppleWorks 2.0 to AppleWorks 2.1 is a subject on its own. I can only say that I have looked carefully at version 2.1 which, in the main, is a more solid program than its predecessor, contains an entirely new SEG.PR file which can be configured for printers and also for direct networking between Apples or other computers. Some of you may wish to make this change for the sake of necessity or simply out of interest and a love exploration of the new, but be warned the cost can be great in time, dollars and pence. Even with TimeOutV2.1 quite a few of the early TimeOut accessories fail to function with this new offering from Claris. At this instant version 2.1 has no compatibility with PinPoint or any of the old Appleworks enhancements.

So in the mean time there will continue to be some confusion concerning just what TimeOut utilities work with AppleWorksV2.1. I can only hope that a BeagleBuddy system will soon be established in UK. Some of the incompatibilities just crash V2.1, some are very obscure. Here is an example of obscurity. FILEMASTERV1.1 works just fine with new AppleWorks, but after you use it just once, no more file saving is permitted by AppleWorks. (Luckily for me, I discovered that I could still PRINT a TXT file to disk. The moral is be very careful making the change).

Perhaps the greatest horror awaits the dedicated UltraMacros, "MacroManiac"; because many of the carefully researched locations are no longer where they once where to be peeked or poked. Sadly many of your most elegant macros (and Beagles) will just fall flat on their backs. No doubt some of this will be taken care of by the time you read this, but prepare yourself for careful testing and expense if you intend make the change and carry all your Accessories with you.

Adding Applications

With an ever increasing scope of TimeOut applications contained in the new packages, Beagle have incorporated a new feature in TimeOut 2.1 under Utilities enabling the user to load up to 30 new applications, all from within AppleWorks and if that does not suit you can choose another group from another directory. Each package can have a separate and associated applications screen. Given that each application screen has a separate id number (PEEK 7786 * 256 + PEEK 7785) and that simple switching between application screens is accomplished by means of the <TAB> key, it can be easily seen that there is almost no limit to the number of additional facilities available under the latest TimeOut format.

And by the way the Data Converter has had a face lift and now converts all ways round, ie AWP to ASP, AWP to ADB, ADB to ASP, and so on.

Beware the Marketeer

At the same time it must be recognised that each new application package seems to contain a carefully structured mixture of the almost banal, sprinkled with a few entirely brilliant new facilities (some of which were standard in SuperMacroWorks). One has to recognise the hand of a marketing person somewhere behind all this. This person has refined two old features; 'cross referencing' and 'redundancy'. See if you can guess what I mean? You cannot fully exploit one package without another, you find the almost the same feature in two different packages.

When in the past we said; "Beagle does it again", it was in uninhibited recognition of something special, of more than the best, delivered with generosity and precision. It seems to me that the present method of presentation falls short here.

In covering the four packages one can single out maybe 10 new applications as being items which once seen and used can never be discarded, some that could be useful sometimes, while a little of what is there is frankly trash.

UltraMacros version 2.2 has changed in major respects; the introduction of a Help Screen (TO.MACROS ULTRA) which covers the whole of an extended range of standard macros, with its pre-compiled source, which in combination with PowerPack's Help Screens, offers a ready and natural means of composing a help menu to suit yourself from a simple word processor document. This is an invaluable new aid to any MacroManiac, whose memory for mnemonics will ultimately atrophy.

The Highlights

PowerPack contains some outstanding items, a program selector, a Help Screen formatter and an AWP to TXT conversion facility for communications.

DeskToolsII contains an invaluable and really powerful reversed polish notation scientific calculator which is directly linked with the spreadsheet and DirecTree which provides a visual display of directories and sub-directories which allows you to directly access and load any AppleWorks file buried at depth within a subdirectory.

MacroToolsII is more of the same as MacroTools with 5 macro composing and programming aids but as before there are only about 2 rare gems. The Macro examples given are of a very high standard.

PowerPack

PowerPack was reviewed by Keith Rookledge, last month. I do not propose to duplicate his article, but there are one or two areas which only became clear to me with the advent of items like UltraMacrosV2.2.

Help Screens

For the MacroManiac who is running out of mnemonics this is a really good idea.

The power and flexibility is not very well illustrated in DeskTools itself. When you see the feature in UltraMacrosV2.2, it becomes clear that this is something truly invaluable.

Every Default Macro is listed on the compiled file TO.MACROS.ULTRA, to be instantly available as TimeOut application. The source file enables you to compose your own custom Help Screen to go with the macros you have created. Mouse Text, inverse, all add a professional appearance. It makes sense to have individual versions of this Utility to go with each Task File.

File Librarian

This application creates a Data Base file listing all files in the AppleWorks' current drive or directory. You can change disk or directory at will from within the application and utilities can be set for file sizes in Kilobytes or Blocks.

Those of you who will seen the same facility in SuperMacroWorks, or even written a macro to do the same thing, may wonder why I just why I like it so much. First this is a "light speed" TimeOut application; the disk drive is accessed, the rest happens so fast you that at first it is difficult register.

There is a minor limitation in that the contents of only one directory are read to the Data Base on at each time. This is offset by the inclusion of a near perfect macro which entirely cancels the shortcoming.

The macro, searches the desktop for the file; "File Library" (the correct data base file), and does the job of recording, files, directories and the contents sub-directories all in a blink. (A blink equals 8 seconds on 5.25" disk, 28 seconds for a packed 3.5" disk").

This application deserves no criticisms. With the backup of a near perfect macro (which works on both versions of AppleWorks) this is Beagle at its best.

Category Search

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has 15 categories and 337 entries.) If you happen to know what you are after, it is a better method of finding a Category.

Program Selector

This selector is interesting in that it takes temporary control of up to 5 programs to select in the presence of other supervising Program Selectors such as Prosel, RunRun or Birds Better Bye. In other words you can exit AppleWorks, exercise specific program options, then return to AppleWorks, exit in the normal way and allow your normal program selector to regain control. The potential for communications, makes this facility very useful. To emphasise this point, two rather clever (and quite perfect) macros accompany the package. This macro set allows you to exit AppleWorks using Program Selector and have your original Desktop is automatically restored when you return.

There are other areas where this kind of selector can be useful. It can be useful to adjust the contents /RAM. The size of the QuickSpell and Thesaurus Dictionaries are quite large and soon absorb a most of a Megabyte, and it may be an advantage to have these available in /RAM for maximum speed.

DeskToolsII

Area Codes

Nearly useless to us who live in the UK, I hear you say. Why should I want to know what the Zip codes are for San Diego, CA, let alone know that the telephone dialing code for Pittsburgh PA is 412. This package deals with the main cities in USA, but as someone who knows the area around Tulsa Oklahoma, there are all the cities I would need to know. Very well it is good idea, not very useful here in this Sceptered Isle, unless someone, negotiates with Beagle Bros., does some serious hacking, a good deal of work and probably breaks the Official Secrets Act.

Calculator+

This is a powerful reversed polish notation scientific calculator that can be directly linked with the spreadsheet by import from a cell. There are 3 (X,Y,Z) memory registers, plus a Total register.

The contents of these registers remain as long as your machine is switched is in AppleWorks. There are 18 fundamental physical constants, more important the Calculator Plus gives direct and inverse Logarithmic functions (natural, base-16, base-10 & base-2), Trigonometric functions (Sin, Cos, Tan) and a range of built in financial modes starting with compound interest.

The results can easily be transferred (Insert facility) back to the DataBase, Word Processor or Spreadsheet. Alternatively any part of the visible calculator is subject to the UltraMacros <cell> command. ie (Speed of light = 299792500 m/s). Does anyone get the feeling I am rather captivated? You are right, I am.

No more SuperCalc for me. This is not going to enthrall all of you, but this feature gives the AppleWorks Spreadsheet a much needed boost when handling Mathematical functions. The unusually large manual devotes 27 of its 97 pages dedicated to very careful explanation of this feature, and this in itself is a good indication of its quality and potential.

Clipboard Viewer

You can look at and delete part of what is on the Clipboard. It works well, you get a clear statement of the type of data you are about to behold, you can precisely see data on the clipboard, just as it would appear. I have read the manual and the advertising.

I am afraid my search for the purpose of this tool, has stretched my imagination beyond it's natural limits. The conclusions are that it is an interesting tool clearly demonstrating mechanism of data transfer within AppleWorks. It could be useful in making a prior inspection of data prior to or during mailmerge. Then of course it could be useful in getting your brains unscrambled if you were using TripleClipboard from PowerPack. (Is this an example of "cross referencing", or am I unjust do you think ?)

Measurements

This is a simple unit converter, which works easily for Length, Liquid (volume), Weight and Time. Plenty of Imperial to Metric conversions, even believe or not; Rods, Poles & Perches, are included.

It also has a facility for transfer conversion factors to your text or transfer your answer to your normal AppleWorks application. If you wanted to know what 68 statute miles is in nautical miles, the number <59.09> comes back as text, just as easily the conversion factor can be made to reappear <.869>. It does not compare with Calculator+, but it could be useful, and it is very easy to use.

DirecTree

```
.ULTRA.SYSTEM      BIN
.UTIL              DIR
    ..SUB2                 DIR
          ...SUBSUB1             DIR
          ...SUBSUB2             DIR
    ..UTIL.SYSTEM      SYS
```

This feature is not quite comparable with the display you get with CopyIIPlus. The View Files feature gives easy visual catalog of all files directories and sub-directories, with the <OA-P> option to list them to the printer.

You may also load any AppleWorks file. You can use utilities to leave the directory as AppleWorks new default, and if that does not appeal to you, another pre-configuration lets you recall the last directory you looked at. Unfortunately "view files" really means "load files", this could be disadvantage if you do not have much memory.

This application is much better that anything I have seen from JEM software. There strong a likeness to Prosel's 'Information Desk' with a better printout and while the string search capability makes it nearly comparable "Find File", but then it also has the capacity to recall the your last directory search.

Please remember all this is in AppleWorks, without doubt this accessory is in the "really useful" class. You can choose what you want to look at by Slot & Drive but really this is a Directory oriented application; (try disk swapping and there is a delay while knickers are untwisted).

Printout gives Blocks used, Block Free, and Total Blocks, but of course you can print to the screen. Open-Apple Up/Down Arrow gives fast tracking through files on disk.

DiskTester

This utility tests disks for readability (or alternately Read and then Write back to the disk.) This later seems a potentially dangerous procedure and I would prefer there was some warning given before this function is enabled. I tried it on some disks, which had errors, faults were not detected in all cases. This accessory is not intended to repair a disk and is no substitute for CopyIIplus, Prosel Mr Fixit or Bag of tricks. If it was totally reliable, one would expect to be part of FileMaster. In present form, I regard it as something I could well be without.

File Search

Does what Directree does not, that is to search an AppleWorks file for a string without loading the whole file to memory. This is really useful feature where you do not much memory. My first thought was that the edit option a neat way of writing to the disk. Sadly no, you have to load the whole file, with all that entails, going through all AppleWorks admonitions like: "You are about to have more than one copy of this file on the DeskTop".

Leaving the application does not leave you in the directory you were looking at, (or the Slot & Drive) which is good. This application does not search non-AppleWorks files, which is an unreasonable limitation, in the case of TXT files should have been included. In my view this is another feature that should have been part of FileMaster but is not.

Printer Manager

This application painlessly injects control sequences to your printer after you have used utilities to suit. You can create several versions to suit particular print requirements, which has some real advantages which I have not fully explored. There is also a whole lot to learned from this package about 80 Column Cards, SuperSerial Cards, and AppleIIc ports. If I had an AppleIIGS I would be even wiser. You can choose NLQ, Extended, line feed + CR, plus a whole lot more and your brain fails to hurt, or so I thought till I was on the final lap of this review. From full recommendation, I cautiously suggest that this package contains the means of controlling any printer and will probably deal with GS serial firmware, even the SuperSerial card. My caution results from the fact that I have not been able to do it.

The problem, which is not new, comes up when the printer has been used to print Graphics through the SuperSerial card. You then fail to get a Line Feed after a Carriage Return. I had so hoped that this accessory would elliminate the need, for the sledge hammer solutions I use to solve the problem. I am ashamed to admit that CTRL-RESET, gets me out of trouble nine times out of ten, alternately under AppleWorks create another Printer which inserts the needed line feed.

(This is a troubled subject dealt with at length by Tom Weishaar of OPEN-APPLE, January1988 & November1987).

Screen Out

In a sense this is a manual duplication of the UltraMacros Screen Preserver. The touch of a key, or password protection as an option will re-enable the screen. In other respects it is entirely inflexible by comparison with the UltraMacros feature where a wide range pre-set times can be used to blank the screen. It merely displays count down 5 4 3 2 1, then out goes the screen. It does not appear to be interfered with by the by UltraMacros.

This little 1K facility has a good deal to said for it, if you need a screen preserver. It needs no clock, you use it when you want it and being entirely manual, you are not hassled by time or wake up macros. Not essential but nice.

Screen Printer

From line at time, to page at a time. Taken together with Printer Manager, this is a worth while Substitute for Pinpoints Typewriter. But I deceive you not, a whole lot more besides. This is a useful accessory, slightly marred by the fact that it disables the "FIND" facility in the Data Base.

Stop Watches

Five digital stop watches and space to note what you are timing. Useful on the boat for navigation. Somewhere it says keep track of time for billing etc. Well at this point elapsed

time on watch number 1 for this article says "03:46:00 TimeOut Article" plus time at Begin and End. If I had a GS the seconds would show as well.

TimeOut MacroTools II

TimeOut MacroTools II is a collection of sample macros and applications for use with TimeOut UltraMacros. It will also upgrade an earlier version of UltraMacros to version 2.0. Please bear in mind that some of the TimeOut applications are designed to be used within a macro and that although these applications all appear to be compatible with AppleWorksV2.1, the supporting macros given are a bit iffy, not to say dubious, in a few cases.

I have only given much detail of individual macros where it is essential the text. The general impression is that though fewer, the degree of finish is far higher than those contained in MACROTOOLSI. Some of the examples explore the UltraMacros language and I fear, reveal some of my own solutions to problems as inept and clumsy. Study of these macros takes time and I can highlight some of the of the more elegant examples in a later article, if there is an interest. The list with comments must suffice for the present.

FileLister

This can only be used within a macro like "FileList.Macro" or (any specific macro you care to design). The essential feature here is to be able to identify any Prodos 8 file type. ie:-

```
$04   TXT   Ascii Text
$F9   P16   PD16 operating system
```

The above are just some of the file types but be sure there are 28 separate types, described in the accompanying macro. FileLister therefore enables ☛

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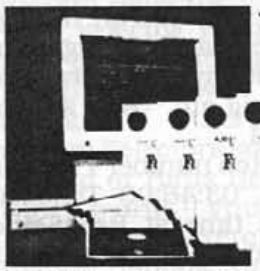

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AppleWorks an ability it never had before, and this could well be a useful feature for some kinds of macro.

Ultra Lock

TO.ULTRA.LOCK allows you to lock a macro set so that is can't be listed using the Macro Compiler. Well if you want to able to do that, now you can. My only comment is that for every individual who wants to keep his macro set a carefully guarded secret, there will be 20 hackers, only too delighted unscramble it all.

UM Reference

This is a handy reference which lists the various UltraMacros commands against the page numbers of the manual. This is none other than another incarnation of DeskTools, HelpScreens, but useful.

Publish Help & Publish Menu

Ultra Publisher is a unique combination of TimeOut applications and an UltraMacros Task File (PUBLISH T,SYS) that makes it easy to convert Word Processor files to two or three columns. TO.PUB.HELP and TO.PUB.MENU have to be in your TimeOut directory to get this remarkable

application to work and it does work. The macro is of required is of baffling complexity and goes through the intricate procedure of creating a text file, loading it to the spreadsheet in measured chunks, so that the result really does produce a balanced 3 column lump of text. I would say that this is a good example UltraMacros, "Pushing the outside of the envelope".

Contents of MacroToolsII

File	SizeK	Note
Ultra Pub v1.	20	Macros UltraPublisher precompiled version of PUBLISH
TO.FILELISTER	1	All Prodos Types within Macro
TO.PUB.HELP	2	Specific and interactive with PUBLISH
TO.PUB.MENU	2	Specific and interactive with PUBLISH
TO.ULTRA.LOCK	1	Macro Compiler cannot display current set
TO.UM.REF	5	Useful reference to key stroke and manual page no.
PUBLISH	4	Ultra Pub v1.0 compiled 2 or 3 columns
Notes	8	Description of TimeOut features
Ultra Pub v1.	20	Macros for UltraPublisher (precompiled as PUBLISH)
Docs MacroTools	10	General documentation
FileList Macro	4	makes it easy to get a filename in a macro; requires TO.F
GetStr Patch	2	Fixes a problem with using Getstr in the Data Base up to
Macros SMW	3	UltraMacros equivalents of some old Super MacroWorks
Macros Ultra	13	Default macros from UltraMacros 2.0
Notes	8	Notes from UltraMacros 2.0, manual update
AE AutoStart	1	Bootup macro for AE users;+ reconfigure AE options
All JEM	4	Promo file for JEM Software enhancements
Ask Yes.No Ques	5	Lets you create your own "Yes/No" prompts in a macro
awp.printer	9	Prints slashed 0's on an ImageWriter; how send codes
Disassembler	2	Converts machine language subroutines into macro pokes
Double DB macro	4	Jumps from a data base to corresponding record in another
Ellis Routine	5	Replacement for Getstr and Input, identify menu line no
IIgs Date Time	3	IIgs-only macros for time to the nearest second
Macro SS Jump	2	Jump to the far right of the SP in a hurry
Macros AutoEnv	2	Equivalent to AutoWorks envelope addresser
Macros DateSet	2	Manually change the date used by <date>

Macro Screen Shot

Screen Shot deserves a special credit because I have used it to create screen shots in the form of a word processing files. A great help to use if you want to write an article like this, perhaps made more excellent because I do not fully understand how it all works. There was nothing of this kind in MacroToolsI.

Conclusion

The manuals for PowerPack & DeskToolsII are excellent, better than previous TimeOut offerings. I leave you to judge whether you need the content. MacroToolsII contains useful, well documented and professional macros, plus some interesting Tools.

PETER DAVIS

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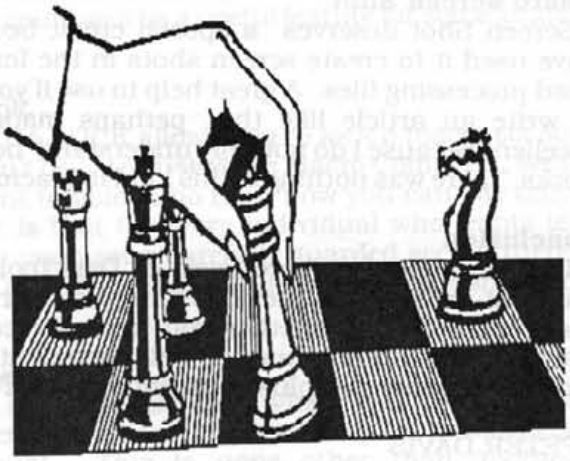
File	SizeK	Note
Macros Load	2	Autoloads QuickSpell dictionaries on bootup
Macros ULC	2	Change entire words to upper case, lower case, or capital
Mail.Test	1	Test file for Mail Merge macro
Misc Munz	4	AWP name, MID$ functn, positn AWP cursor, DB = criteria
Mail.Merge	9	Improved mail merge by Steve Ellis
No Keyboard Macro	2	Allows ATO macros to be subroutines and no calls by keys
Power Startup	3	Quick load TimeOut applications at bootup
Press Space Bar	4	Use "Press Space Bar" within macros
Printer Chars	3	Send control codes to a printer
RamReset	3	Make Control-Reset work with Apple and RamFactor cards
Reset Date	3	Reset <date> from Prodos location used by your clock
Safe Save	1	Save files if "insufficient room" error occurs in V2.1
Screen Shot Src	8	Nearly reads the AppleWorks screen into a file.
Show Time.Date	1	Displays current date & time on screen, uses store & wait
Steal Key	2	Trick to disable Return within macros
Str Presenter	2	Novel way to display messages
TaskExit II	2	Proper macro exit technique
Tips	3	Advertising other products
TypeWriter	4	Typewriter, file counter, ascii values macro
Ultra On.Off	3	Deactivate UM in powerful macros, access MLI
Ultra Variables	5	Use multiple variable sets, saved & restored
UpperCASE Str	2	Force a string to upper case
Various Macro	3	Instant screen blank, screen flash killer, inverse AplWks
What is What	2	Version, enhancement identifier Also V2.1
Mail.List	2	sample data base for use with Mail Merge

AUTHORS:- Randy Brandt, Dan Verkade, Glen Clawson, Mark Munz, & Others

Chessmaster 2000



Dave Ward tries out a star chess program for the Apple//

The Chessmaster 2000, published in 1986, is perhaps the latest chess playing program for the Apple // range of computers and compatibles. During the review of this product it seems reasonable to compare it with Colossus 4 and Sargon III, two other well known chess playing programs.

The Chessmaster 2000 arrives in a cardboard wallet with a 5.25" diskette inside. Also contained within the sleeve are a 21 page booklet and a 6 page instruction manual. The outer faces of the wallet describe the product as "The finest chess program in the world" with an endorsement by Yasser Seirawan a prominent US Grandmaster. In the box oppositeare a list of most of the claims vaunted on the back of the wallet.

The booklet describes how to play chess for beginners and then gives a long history of chess and chess playing machinery. The library of classic chess games and problems supplied on the back of the program disk are fully described.

The instruction leaflet describes installation on all the different machine for which the program is available plus all the features of The Chessmaster 2000. The 5.25" 'copy-protected' diskette contains the program and 'book-moves' on the main side with a library of a 100 classic games and problems on the other side. The instruction leaflet claims that "To maintain the value of your investment this program has been copy-protected"

The program diskette boots up on all the Apple // computers that I could lay my hands on including Apple][plus 64K, Apple //e, Apple //e enhanced, Apple //c and an Apple IIgs. The only slight problem occurs on an Apple IIgs where interrupts are activated. Normally this is no problem but it can occur, if for instance, you have Diversi-KEY active. Although the diskette is copy-protected it boots up quickly through two hi-res credit screens to the main text screen shown in Figure 1 opposite.

You get the one-time choice of using the keyboard or joystick and the message in the bottom right-hand corner of the screen blanks. The top-left-hand rectangle always contains the main menu. This is necessary because the command keys (mainly control keys) do not normally act as prompts as we shall see.

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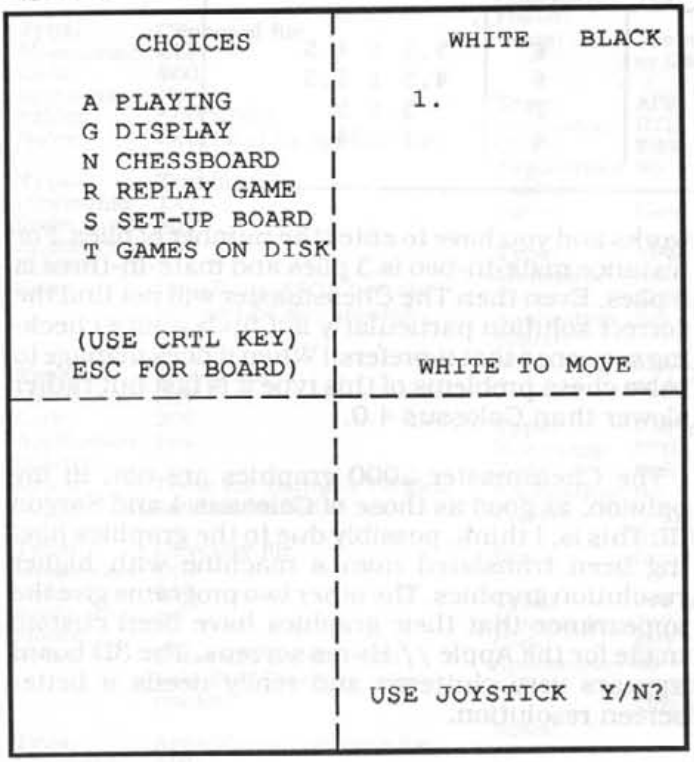
- Take back moves.
- Shows captured pieces.
- Change sides at any time.
- Turn the 3D board 90 degrees to see every angle.

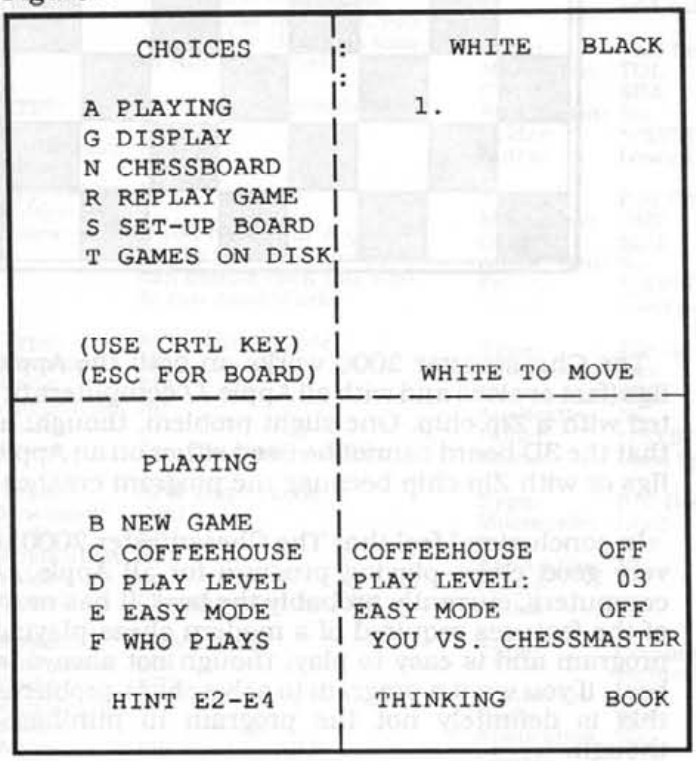
The Publisher's Claims!

Figure 1



The ESCape key acts as a toggle between this text page and the hi-res board. When you choose one of the items in the menu rectangle a sub-menu appears in the bottom left-hand corner and the current options opposite to each entry in the bottom right-hand corner. See what happens when you choose control-A (PLAYING) :-

Figure 2



The last area of the screen, the upper right-hand corner shows the last 7 moves by both sides and right at the bottom of the screen you'll see

```
HINT E2-E4        THINKING        BOOK
```

which can be switched on or off from the DISPLAY option of the main menu.

The CHESSBOARD option allows one to show the board in colour or monochrome or in two or three dimensions.

The SET-UP BOARD is very easy to use once you are used to it pieces are entered simply by four key-strokes such as WKE1 which places the White King on square E1.

The EXTRAS menu allows one to set the number of moves to find MATE, to actually search for a MATE? and print the moves of the current game.

Enter moves is done in the simplest way possible, for instance, at the start of the game you type E2E4 to move the kings pawn from E2 to E4. You can do this quite easily 'blind' with the board showing because the "to" square is highlighted in inverse and in teaching mode (control-K toggle) all the legal moves for the piece are shown too. If you attempt to make an illegal move you get a claxon sound and that part of the move is cleared and The Chessmaster waits for you to reply with a legal entry.

Back in February 1986, pp17, I reviewed Colossus 4.0 written by Martyn Bryant an Apple 2000 member. Since that was the best chess playing program, that I had seen, for the Apple // series it seems appropriate to compare the two in this review. Using some of the timings given in Chessmaster 2000 manual I set Colossus 4.0 to move at a similar rate and played ten games. This was repeated for the first 4 levels of play from The Chessmaster 2000. The results of my tests are shown in Figure 3 overleaf.

On these results I would put The Chessmaster 2000 to be marginally better than Colossus 4.0 but they belie that Chessmaster 2000 makes its moves in around 75% of the stated times whilst Colossus 4.0 'steals' an extra 2 minutes, on average, for every 10 minutes it puts on the screen. On this basis I feel that The Chessmaster 2000 is a better chess-playing program than Colossus 4.0. Colossus 4.0 also gains, fairly and wisely, in another way by using it's allotted time as most good players would.

That means that if it (Colossus 4.0) thinks it needs extra time on a particular move to look a little deeper it will take the time and move a little faster later on. The Chessmaster 2000 rarely seems to do this to any extent except when it moves quickly because the opponent has made a move that it anticipated. Colossus 4.0 does this because it sets a 'time-control' at move 60 and even on a 5s per move game will on occasion use a minute of its allotted 5 minutes on a particularly difficult move. This must be an advantage in games that end in much less than 60 moves.

I find it difficult to believe that The Chessmaster 2000 actually uses a 71000 move 'book' since it

Chessmaster 2000 (level)	Colossus 4	draws	result
0	5s	6	5.5 : 4.5
1	7s	6	4.5 : 5.5
2	10s	1	5 : 5
3	30s	4	6 : 4

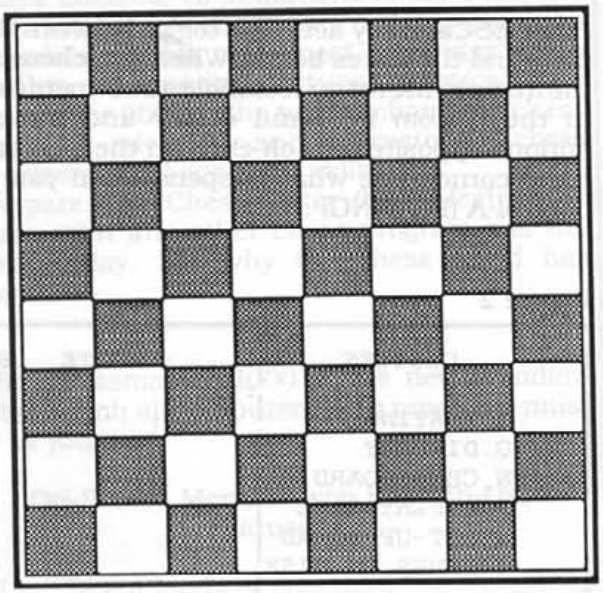
Figure 3

never accesses the disk whilst searching its 'book' and it surely cannot store so large a 'book' in memory at any one time. Colossus 4.0 on the otherhand claims a book of just 3000 moves which are on the disk. In all the games I played or supervised Colossus 4.0 stayed in its 'book' generally longer than The Chessmaster 2000; never less.

Both programs recognise draws by repetition and the 50 move rule. In my opinion, however, The Chessmaster is not perfect in either of these, although I don't have an official set of rules to hand. If a position occurs three times each with the same side to move then the game is a draw irrespective of the number of moves between those positions. Colossus 4.0 always finds these draws but in three of the games where Colossus 4.0 claimed a draw The Chessmaster 2000 wanted to carry on! The Chessmaster thinks that a draw exists when each side have played 25 moves (total 50) without a capture or pawn move; Colossus 4.0 does this after 50 moves by each side (total 100).

The Chessmaster 2000 manual also claims that the program will solve checkmate problems. You can choose SOLVE MATE from the EXTRAS menu and also adjust the number of 'moves' to search for checkmate, too. The manual gives very little information about this and one might think that the number you enter for mate-in-two would be 2 and 3 for mate-in-three. It never works and you have to enter the number of plies. For instance mate-in-two is 3 plies and mate-in-three is 5 plies. Even then The Chessmaster will not find the correct solution particularly if it finds a nice checking sequence that it prefers!! When it does manage to solve chess problems of this type it is fast but rather slower than Colossus 4.0.

The Chessmaster 2000 graphics are not, in my opinion, as good as those of Colossus 4 and Sargon III. This is, I think, possibly due to the graphics having been translated from a machine with higher resolution graphics. The other two programs give the appearance that their graphics have been custom made for the Apple // Hi-res screens. The 3D board appears very cluttered and really needs a better screen resolution.



The Chessmaster 2000 works on both the Apple IIgs (fast or slow) and with all Apple // computers fitted with a Zip chip. One slight problem, though, is that the 3D board cannot be used either on an Apple IIgs or with Zip chip because the program crashes.

In conclusion I feel that The Chessmaster 2000 is very good chess-playing program for all Apple // computers, currently probably the best. It has most of the features required of a modern chess-playing program and is easy to play, though not always to beat. If you want a program to solve chess-problems this is definitely not the program to purchase, though.

Dave Ward

The ProDOS file types(from page 6):

Type: Clipboard file
Mnemonic: CLP
Code: $00
Application: No
Folder: */SYSTEM
Notes: Generated by applications

Type: Text file
Mnemonic: TXT
Code: $04
Application: No
Folder:
Notes: Usually an ASCII text file but may be downloaded data

Type: Binary file
Mnemonic: BIN
Code: $06
Application: Yes
Folder:
Notes: These are normally P8 files, and can be BRUN

Type: Directory file
Mnemonic: DIR
Code: $0F
Application: No
Folder:
Notes: These are the files that hold Sub-Directory information

Type: AppleWorks Database file
Mnemonic: ADB
Code: $19
Application: No
Folder:
Notes: If you have your AppleWorks disk mounted, you can double click this icon to run AppleWorks

Type: AppleWorks word processor file
Mnemonic: AWP
Code: $1A
Application: No
Folder:
Notes: If you have your AppleWorks disk mounted, you can double click this icon to run AppleWorks

Type: AppleWorks spreadsheet file
Mnemonic: ASP
Code: $1B
Application: No
Folder:
Notes: If you have your AppleWorks disk mounted, you can double click this icon to run AppleWorks

Type: APW Source Code
Mnemonic: SRC
Code: $B0
Application: No
Folder:
Notes: Text file used by APW

Type: APW Object code
Mnemonic: OBJ
Code: $B1
Application: No
Folder:
Notes: File generated by APW

Type: APW Library
Mnemonic: LIB
Code: $B2
Application: No
Folder:
Notes: File used by APW

Type: P16 or GS/OS system program
Mnemonic: S16
Code: $B3
Application: Yes
Folder:
Notes: The most usual kind of P16 or GS/OS application

Type: APW Run-time library
Mnemonic: RTL
Code: $B4
Application: No
Folder:
Notes: Used by APW

Type: APW shell application
Mnemonic: EXE
Code: $B5
Application: Yes
Folder:
Notes: May be run from the Finder or APW only

Type: P16 init (startup) file
Mnemonic: STR
Code: $B6
Application: No
Folder: */SYSTEM/SYSTEM.SETUP
Notes: Run by P16 on startup

Type: P16 temporary init file
Mnemonic: TSF
Code: $B7
Application: No
Folder: */SYSTEM/SYSTEM.SETUP
Notes:

Type: New Desk Accessory
Mnemonic: NDA
Code: $B8
Application: No
Folder: */SYSTEM/DESK.ACCS
Notes: Loaded by P16 at startup and called from the Apple Menu

Type: Classic Desk Accessory
Mnemonic: CDA
Code: $B9
Application: No
Folder: */SYSTEM/DESK.ACCS
Notes: Loaded by P16 at startup and called by OA-Ctrl-Esc

Type: Tool Set
Mnemonic: TOL
Code: $BA
Application: No
Folder: */SYSTEM/TOOLS
Notes: Loaded by P16 at startup

Type: P16 Printer Driver
Mnemonic: DRV
Code: $BB
Application: No
Folder: */SYSTEM/DRIVERS
Notes: Used by applications

Type: File System Translator
Mnemonic: FST
Code: $BD
Application: No
Folder: */SYSTEM/FSTS
Notes: Used by GS/OS

Type: P16 Document file
Mnemonic: DOC
Code: $BF
Application: No
Folder:
Notes:

Type: Compressed Super Hi-Res picture
Mnemonic: PNT
Code: $C0
Application: No
Folder:
Notes: Picture file used by drawing applications

Type: Super Hi-Res picture
Mnemonic: PIC
Code: $C1
Application: No
Folder:
Notes: Normal screen dump picture

Type: Font file
Mnemonic: FON
Code: $C8
Application: No
Folder: */SYSTEM/FONTS
Notes: Font files are used by GS programs, Superfonts and Publish.It!

Type: Finder data file
Mnemonic: FND
Code: $C9
Application: No
Folder: Everywhere ...
Notes: This file crops up in every directory viewed by the Finder

Type: Icon File
Mnemonic: ICN
Code: $CA
Application: No
Folder: */ICONS
Notes: Used by Finder

Type: Pascal partition
Mnemonic: PAS
Code: $EF
Application: No
Folder:
Notes: Pascal partition on a hard disk

Type: P16 and GS/OS file
Mnemonic: P16
Code: $F9
Application: Yes
Folder:
Notes: GS/OS application

Type: Applesoft Basic program
Mnemonic: BAS
Code: $FC
Application: Yes
Folder:
Notes: Usually run from Basic but may be launched from the Finder if BASIC.LAUNCHER and BASIC.SYSTEM are present

Type: EDASM relocatable file
Mnemonic: REL
Code: $FE
Application: No
Folder:
Notes: Used by EDASM

Type: P8 system program
Mnemonic: SYS
Code: $FF
Application: Yes
Folder:
Notes: The file name usually has the suffix .SYSTEM and is run by P8 on boot if it is the first file with this suffix in the directory

Linnet Modem

Nigel Bradley reviews an intelligent modem and describes the Hayes control codes

The Linnet modem arrived well protected in a polystyrene package and came with a small but very informative manual. The case is about the size of a disk drive, and being flat, allows in fact a disk drive to be sat on top. A separate plug in power pack is included with the modem with a very long length of cable, so allowing some freedom for moving the modem nearer to a phone which may not itself be near to the computer. The Linnet requires one of the new types of British Telecom telephone socket. The Linnet is connected to the telephone socket and the telephone is then connected into the Linnet. If the Linnet is not powered up the telephone will still work normally.

The Linnet requires a serial card and cable for connection to an Apple //e or][+ or just a cable if connected to a][GS. This presented me with a few problems and after quite a few telephone calls to our own Apple 2000 bulletin board sysop Ewen Wannop, I managed to make a cable which should have worked but didn't. (Ed: If we had been able to offer our new range of cables in time, Nigel would have been spared a session with the soldering iron!)

Ewen therefore suggested a call to PACE who were in fact very helpful. It was decided that the cable was correct and the modem should be returned for them to investigate. They found nothing wrong with the Linnet but upgraded the firmware to the latest revision. I again tried the Linnet but with nothing but garbage arriving back at the][GS I was quickly becoming frustrated at my first attempt at communications. I then tried the Linnet complete with my home made cable on another][GS (thanks to William Watson) and it worked quite well indeed. We concluded that I had therefore got a][GS with a faulty modem connector. I then put into the][GS an Apple super serial card and tried again. Success at long last!

Once connected, typing 'AT' at the keyboard produced an 'OK' from the Linnet. I loaded a copy of Point to Point (see my review) and within minutes was logged on to the Apple 2000 bulletin board where there was a six week old message waiting for me from Ewen actually congratulating me for persevering with all the problems and getting there in the end.

Apart from connecting the thing up there is little or nothing for the actual user to do because the Linnet is a very intelligent beast which will auto dial a telephone number and then automatically adjust itself to the correct baud rate of the system logged on to. There are commands for the user should he require them to do various things with the modem. These commands consist of single capital letters eg. D. These letters must be preceded by 'AT'. In other words typing 'ATD' followed by a suitable telephone number will instruct the Linnet to auto dial the number. 'ATH' will instruct the Linnet to hang up the phone and drop the line. The following table is a complete list of commands:

A :Answer call
C :Carrier control
D :Dial number and originate call
E :Echo AT commands
H :Hook control
I :Display identity
M :Monitor status
N :Display/set number store
O :Go back on line
P :Set pulse dial mode
Q :Result codes
R :Revert to answer after dial
T :Set tone dial mode
S :Display/set S registers
V :Result codes
W :Wait for secondary dial tone
X :Extended result codes
Z :Reset S register commands
&F:Restore factory defaults
&S:Display current settings
&W:Write back user settings

Being new to communications I am not going to fully describe all the above codes but will try to give a beginners description of what they do.

'ATA' will force the modem into answer mode immediately, this is for use where a voice connection with someone has already been established and data is to be received from that person.He should put his modem into originate mode and type 'ATD'. The modem will then wait for a carrier and establish a data link.

'ATC' is normally used for test purposes only to force the modem into generating a carrier tone.

'ATD' as stated earlier will cause the modem to switch into originate mode and dial a number.

',' This can be inserted after the 'ATD' command to cause a delay before dialing should it be required. ie.ATD, (telephone number) will cause a delay before dialing the number. This delay is dependent upon the value found in register S8 and can be 4-12 seconds; this delay can be increased by adding more commas ie.ATD, (telephone number)

'ATE' Will turn on or off the echo of AT commands to the computer screen.

'ATH' will cause the modem to be on or off hook just as a telephone is on the hook when not being used or off the hook when being used.

'ATI' will cause the Linnet to print it's version number on the screen and therefore identify itself.

'ATM' is used to specify when the Linnet's internal speaker is switched on or off. It is normally on so that the dialing etc can be heard.

'ATO' is used to tell the modem to return to on line mode. It is normally used when local mode has been selected whilst on line.

'ATQ' is used to enable or disable result codes. Result codes are messages such as NO CARRIER, CONNECT or BUSY.

'P' is used with the 'ATD' command to instruct the modem to use pulse dialing ie. 'ATDP' (telephone number)

'R' is also used with the 'ATD' command to make the modem switch into answer mode after dialing ie.'ATD" (telephone number)

'ATSn' is used to set values into special registers where n is the register number (see later)

'ATSn?' is used to instruct the Linnet to display the S register values currently in force.

'T' is used with the 'ATD' command to instruct the Linnet to use tone dialing ie. 'ATDT' (telephone number)

'ATV' is used again with result codes V0 will generate error numbers V1 will generate messages as previous ie. BUSY etc.

'W' is used to tell the modem to wait for a secondary dial tone. This is for use where a 9 is dialed say in a company before a line is available for normal dialing.

ie. 'ATD'9 W (telephone number)

'AT&F' is used to restore the factory default settings of the S registers

'AT&S' displays the current settings of the C, E, M, P, Q, T, V and X commands

'AT&W' writes all current values of the S registers and the settings of the AT commands to non volatile ram in the Linnet so that these will always be as the user requires. Using 'AT&F' along with 'AT&W' will write the factory defaults into ram.

'AT?' will display the command set summary as shown earlier.

'ATNn' is used to store telephone numbers inside the Linnet where n is any number between 1 and 32. The Linnet is capable of storing 32 telephone numbers and descriptions which can be 16 characters long. eg say that 'ATN4' is used to store 0225 743797 along with the description APPLE 2000 then the number can be dialed in two ways.

'ATDN4'
or 2...'ATDN APPLE'

This worked quite well and I found it an easy way to auto dial.

The Linnet is fully Hayes compatible and therefore works from most commercially available software such as Pinpoints Point to Point and Gazelle written by Ewen Wannop and supplied by Kolour Software. It also works from Freeterm which is a shareware package available for downloading from Apple 2000 bulletin board.

The Linnet operates in V21 or V23 mode, but there is now a new V22 Linnet multispeed modem which will work at 1200/1200 baud with automatic speed buffering.

Footnote:

Nigel is a newcomer to communications, and his experiences are typical of the new user. Ideally a piece of hardware should be suitable for taking out of the box and working straight off. However, communications is fraught with pitfalls. Once connected though, and online, things are usually trouble free. At the present time, the Linnet is one of the cheapest and most reliable of modems, and the new Linnet with V22 is remarkable value.

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GS-OS

Dave Ward examines the latest in operating systems for the remarkable Apple IIGS computer

GS OS is the true 16 bit operating system for the Apple IIgs that we have, for the last eighteen months, been waiting for has finally arrived after it's introduction at the San Francisco Apple Fest in September 1988.

In the US of A the GS OS (Apple IIgs System Software version 4.0) can be purchased for around $40 and consists of two diskettes and the appropriate, prolix, manuals; they contain a very high word count but are low on information. The two diskettes of software are, by themselves, available free-of-charge from many sources including Apple Computer (UK) who have been supplying them to user groups for further distribution. Presumably newer Apple IIgs Computers will be supplied with these two diskettes and the manuals.

To use GS OS you will require an Apple IIgs, of course, with at least 512K of memory and ROM version 01. You can check that you have ROM version 01 because this legend appears at the bottom of the screen every time you cold-boot the Apple IIgs with ROM version 01.

Two diskettes /SYSTEM.DISK/ and /SYSTEM.TOOLS/ are supplied because there is insufficient space on a single 800K 3.5" diskette. The contents of these two diskettes are shown in the tables on page 28. These listings were produced with the aid of INFO.DESK from the ProSel package and modified to fit in these pages.

You can boot the /SYSTEM.DISK/ and after a moment the whole screen assumes the colour of the border and a small horizontal 'thermometer' appears in the centre of the screen.

The 'temperature' of the thermometer rises until a maximum when the GS OS has loaded and the screen soon changes and you find yourself in the Finder.

The speed increase is particularly noticable.....

Advantages of GS OS

GS OS has much faster disk access and in general will load data from the disk better than twice as fast as ProDOS 16 versions. For instance you will find yourself in the Finder after just 35 seconds from booting compared with well over a minute for ProDOS 16 versions.

This speed increase will, of course, be diluted because once a file appears in memory it has to be relocated and there are other system overheads too. This speed increase is particularly noticeable when using the Finder to copy files where speed increases greater than 3:1 can be expected since there is none of the aforementioned dilution.

The Finder is different, too and is much more like the Macintosh version. File copying operations are accompanied by the 'thermometer' which shows the extent of the copying process. You cannot quit from the Finder now as that particular facility has been removed from the File pull-down menu to be replaced by shut-down in the —— menu. This is another move towards the Macintosh.

GS OS has a disk cache to improve disk access and this works by taking some memory so that disk reads are stored in that memory and tagged to the location on the disk. Next time you attempt to read the disk the data comes from RAM at the speed of light!

There is a New Desk Accessory CACHE which allows one to change the size of the RAM buffer. This accessory is stored in the DESK.ACCS folder in the system folder on the /SYSTEM.DISK/ and is automatically installed when the diskette is booted. You access this New Disk Accessory (NDA) by pulling-down the menu from the little apple on the menu bar of a window. By default its size is 32K but this can be increased to as much as you like providing that you have enough system memory. Remember though that this memory reduces the amount of free memory for your applications.

Let's now take a look at the structure of the two diskettes:

/SYSTEM.DISK/ - This diskette is bootable and has a file PRODOS in the volume directory which is just 4 blocks long and simply acts as a pre-loader for the GS OS system. As usual the SYSTEM folder in the volume directory and contains all the necessary files to install the system and execute the START file.

TOOLS is a folder that contains the latest version of RAM based tools and these are installed during boot-up. These tools augment those in ROM and may even supersede some of them if the RAM versions correct bugs etc.

DRIVERS are installed to allow GS OS to communicate with disk drives and printers etc. Note that

there is no SCSI driver in the DRIVERS folder in the /SYSTEM.DISK/ but it is available in the same folder in the /SYSTEM.TOOLS/ diskette.

Booting the /SYSTEM.DISK/ will produce a system that does not recognise a SCSI card. This can simply be corrected by copying over the SCSI.DRIVER to the /SYSTEM.DISK/SYSTEM/DRIVERS folder and re-booting the diskette. We'll return to this problem later, though.

DESK.ACCS is the folder containing Desk Accessories; there are two types New Desk Accessories (NDA) and Classical Desk Accessories (CDA). All files of both of these Desk Accessories are installed during boot-up. New Desk Accessories are only available if you are using a DeskTop application under ProDOS 16 or GS OS by pulling down the menu from the little apple in the top left-hand corner of the menu bar. Classical Desk Accessories are, however, available from any operation system once they have been installed and coexist with the Control Panel and are accessed by pressing the Open-Apple+Control+Escape keys together.

FONTS are installed too but are only available to DeskTop applications under GS OS or ProDOS 16. Programs such as AppleWorks GS have a pull-down menu allowing one to access these fonts.

FSTS contain the File System Translators. Which are utilities to allow GS OS to read different disk formats. At present there are just three supplied for reading ProDOS disks, High Sierra formatted CD ROMs and characters. Others will almost certainly become available most likely from Apple Computer Inc. and possibly third parties. Most likely are FSTs to read Macintosh disks and IBM formats. It would even be possible to write FSTs to read the old DOS 3.3 and DOS 3.2 formats!

The SYSTEM.SETUP folder also supports files to load a super resolution picture of your choice at boot-up and files to change the system beep from the usual bong to almost anything you like.

GS OS still supports ProDOS 8 and the latest version 1.7 is supplied with BASIC.SYSTEM version 1.2.

After all this installation is complete the file START is executed. START on the /SYSTEM.DISK/ is in fact the Finder but you could, if you wish, change this to any executable S16 file. Most users will, of course, use the Finder to launch their applications. ProSel version 3.8 works fine under GS OS and I prefer to use this excellent utility to launch both GS OS applications as well as ProDOS 8 ones. Incidentally ProSel's START file is one block long and uses a further 14 blocks making a total of 15 blocks. The Finder is just 133 blocks in size!

..... much more like the Macintosh....

If you look at the /SYSTEM.TOOLS/ diskette (see the table on page 28) you'll notice that its structure is basically the same as the /SYSTEM.DISK/ (see table 1). You will, however, notice some new files: INSTALLER, ADV.DISK.UTIL and the folder (directory) SCRIPTS.

INSTALLER is supplied to aid users, particularly hard disk and large RAM disk users, to install the system painlessly. This useful utility uses text files from the SCRIPT folder to direct it.

ADV.DISK.UTIL is a nice utility to partition hard disks and also format disks.

In conclusion GS OS addresses itself to most of the problems with ProDOS 16 versions but is two years late. Disk access is generally at least twice as fast as ProDOS 16 versions and the new Finder version 1.2 supplied with the system has seen much improvement. With the massive sales of the Apple IIgs computer in North America we can expect to see many more improvements in both GS OS and the Apple IIgs in the future.

If you have the correct hardware mentioned above then get yourself a copy of GS OS. Apple 2000 will supply the two diskettes at a small cost to cover postage and packing. If you haven't got the right hardware go out and get it and then goto the beginning of this paragraph!

Dave Ward

The listings showing the OS disc contents are on page 28.

All of the files are available for download from our TABBS bulletin board.

Alternatively, if you love snail-mail, send two 3.25" discs with a cheque for £3.50 to cover the carriage and we will copy the GS OS onto the discs and return them asap.

COMPUTER SEEN RUNNING ITSELF!

Apple IIGS computers have been recently seen in homes, offices and schools, mysteriously running programs when started, loading documents, printing them, running other programs, typing pages of text, all without anyone nearby.

Other computer users report being able to create previously unheard-of commands for familiar applications, and using the same set of commands in many different applications.

Students doing homework were observed typing entire pages of text at 600 words-per-minute, error-free!

Although many Apple IIGS owners were still unaware of the exact explanation for this phenomenon, observers report that in all cases, a disk marked simply with the word MacroMate™ was seen nearby.

Detailed information on this exciting development can be obtained by writing or calling:

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```
Directory: /SYSTEM.DISK/

Filename                Blocks  Type

PRODOS                       4  SYS
SYSTEM                       1  DIR
  START.GS.OS               23  $F9
  GS.OS                     86  $F9
  ERROR.MSG                 10  $B5
  FSTS                       1  DIR
    PRO.FST                 42  FST
    CHAR.FST                 4  FST
  DRIVERS                    1  DIR
    APPLEDISK3.5             5  DVR
    CONSOLE.DRIVER          14  DVR
    IMAGEWRITER             46  DVR
    PRINTER                  5  DVR
    MODEM                    5  DVR
    PRINTER.SETUP            1  BIN
  SYSTEM.SETUP               1  DIR
    TOOL.SETUP               1  $B6
    TS2                     30  $BC
  DESK.ACCS                  1  DIR
    CACHE.NDA                6  NDA
  START                    133  S16
  TOOLS                      2  DIR
    TOOL014                 40  TOL
    TOOL015                 20  TOL
    TOOL016                 18  TOL
    TOOL021                 26  TOL
    TOOL018                 33  TOL
    TOOL020                 15  TOL
    TOOL022                  8  TOL
    TOOL028                  8  TOL
    TOOL032                 15  TOL
    TOOL029                  5  TOL
    TOOL027                 27  TOL
    TOOL026                  9  TOL
    TOOL025                 13  TOL
    TOOL023                 24  TOL
    TOOL019                 25  TOL
  FONTS                      1  DIR
    COURIER.10               6  FON
    COURIER.12               7  FON
    GENEVA.10                6  FON
    GENEVA.12                7  FON
    HELVETICA.10             6  FON
    HELVETICA.12             7  FON
    SHASTON.16              12  FON
    TIMES.10                 6  FON
    TIMES.12                 7  FON
    VENICE.14                9  FON
    FONT.LISTS               3  BIN
  P8                        32  SYS
FINDER.DEF                   1  FND
ICONS                        1  DIR
  FINDER.ICONS              32  $CA
FINDER.DATA                  1  FND
APPLETALK                    1  DIR
BASIC.SYSTEM                21  SYS
BASIC.LAUNCHER               3  SYS
```

```
Directory: /SYSTEM.TOOLS/

Filename                Blocks  Type

INSTALLER                   54  S16
ADV.DISK.UTIL               81  S16
SYSTEM                       1  DIR
  FSTS                       1  DIR
    HS.FST                  20  FST
  SYSTEM.SETUP               1  DIR
    ATSETUP                  1  $B6
    ATSTART                  1  $BC
    ATINIT                   1  $E2
    ATPATCH                 14  $BC
    ATRESPONDER             17  $BC
    SPLOAD                  23  $BC
    ATROM                   22  $BC
  DRIVERS                    2  DIR
    SCSI.DRIVER             14  DVR
    UNIDISK3.5               5  DVR
    IMAGEWRITER             46  DVR
    IMAGEWRITER.LQ          46  DVR
    LASERWRITER             74  DVR
    PRINTER                  5  DVR
    MODEM                    5  DVR
    APPLETALK                7  DVR
    APPLE.MIDI               4  DVR
    CARD6850.MIDI            4  DVR
    EPSON                   45  DVR
    PARALLEL.CARD            5  DVR
    APPLEDISK5.25           13  DVR
    AT.IW.PSETUP             1  BIN
    AT.IWLQ.PSETUP           1  BIN
    EPSON.PSETUP             1  BIN
    IW.PSETUP                1  BIN
    IWLQ.PSETUP              1  BIN
    LW.PSETUP                1  BIN
  DESK.ACCS                  1  DIR
  TOOLS                      1  DIR
  FONTS                      1  DIR
APPLETALK                    1  DIR
  NAMER                      1  DIR
    MTXABS.0                31  BIN
    NAMER.II                 3  SYS
    NAMER.0                 61  BIN
  CHOOSER                    1  DIR
    CHOOSER.II               3  SYS
    CHOOSER5.OVR             8  NON
    CHOOSER4.OVR             7  NON
    CHOOSER3.OVR             6  NON
    MTXABS.0                31  BIN
    IWEM                    61  TXT
    CHOOSER2.OVR             5  NON
    CHOOSER1.OVR             4  NON
    CHOOSER.0               61  BIN
ICONS                        1  DIR
SCRIPTS                      2  DIR
  ADV.DISK.UTIL              1  TXT
  APPLE.MIDI                 1  TXT
  APPLEDISK5.25              1  TXT
  ATIMAGEWRITER              4  TXT
  ATIMAGEWRITERLQ            4  TXT
  CARD6850.MIDI              1  TXT
  CATALOG                    1  TXT
  CDROM                      1  TXT
  CHOOSER                    5  TXT
  DCIMAGEWRITER              3  TXT
  DCIMAGEWRITERLQ            3  TXT
  EPSON                      3  TXT
  FONTS                      3  TXT
  INSTAL.SYS.FILE           11  TXT
  INSTALL.ALL               17  TXT
  LASERWRITER                4  TXT
  NAMER                      4  TXT
  SCSI.HARD.DISK             1  TXT
  UNIDISK3.5                 1  TXT
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Folders in the above directory listings are indented and have the file-type DIR.

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Hotline News

BASIC compilers for Apple // computers come up quite often in Hotline enquiries, so perhaps it is appropriate to discuss the current situation here. For convenience w'ell divide them into three types: DOS3.3, ProDOS and those that are designed for the Apple IIgs.

In the beginning there was Integer BASIC written by Steve Wozniak. This was soon replaced by Applesoft BASIC which is still supplied today with all Apple // machines including the Apple IIgs, in ROM. Since then there have been many incarnations of BASIC an recently at least five Apple IIgs specific BASICs have appeared.

In the next month a resume of all the BASIC incarnations will be discussed in this column followed later by some reviews.

Copy II plus versions 8.2 and the latest 8.3 appear to have a rather obscure bug. When using the Sector editor from the 'Bit copier' menu it is not possible to print to any other slot than slot 1. The obvious method of doing this is to first choose the Manual 'Bit copy' option and change parameter 48 to the slot number and then exit to the main menu and back to the Sector editor.

When contacted Central Point Software indicated that this method should work, probably without trying it!! because the printer slot is unfortunately changed to 1 on entry to this routine. If you have Snapshot running you can exit to the monitor change the value in location $0858 to reflect the printer slot required and then return to the Sector editor If any readers can offer a better solution please write and let us know.

Richard Wilday directed my attention to an article in Call A.P.P.L.E magazine by Peter and Alan Baum, "Speaking of Hardware" May 1988 pp50. The article describes how Zip Chip and other accelerators work and is certainly worth reading. The two authors, who have been intimately involved in the evolution of the Apple // computer, end there article as follows: "Hurray for the Zip Chip and the changes that it is sure to bring to the Apple // world".

Jeremy Quinn also wrote to me after reading the Zip Chip review to say that he has written a modified driver for the Glanmire Clock so that it will work properly with the Zip Chip working at system speed (4.0 Megahertz). I don't think that it will take too much arm twisting to get him to let us all into the secret!

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Technical TABBS

Our TABBS bulletin board has a very busy developers forum - here is a brief selection of the messages

From: STUART ANDERSON
To: EWEN WANNOP

Ewen, I have a problem with APW. Hopefully you can point me at the right LINKED command.

I have a routine in 65816 that I want to call from TML Pascal. So far easy yes !? Done it before, but the routine MUST live in bank 01 in order to work (I'm checking slots for signature bytes). If I load the routine into the debugger it works fine in bank 01 but will refuse to work if I call it from the APW command line (presumably because it is not in bank 01 ?)

So, I placed a KIND $60 statement in the source to persuade the linker it needed to be an absolute bank segment. Problem is how do I tell it that it must be bank 01 (or I assume bank 0 or E0 !).

I agree I may have missed the glaringly obvious in the manual but this is driving me nuts, and Waystation V2 is awaiting this routine urgently.

From: EWEN WANNOP
To: STUART ANDERSON

To load at a particular address, you have to specify an Origin in the original source code. Use [label] ORG memloc [comment], however you cannot be sure that that memory is clear. You can use a LinkEd ORG command as well. If your code is relocatable, why not simply ask for a specific bit of memory in Page 0 or wherever, and then relocate the code to there.

I do this with my serial port routine. I made sure no JMP's all BRA or BRL and then ask Memory Manager for Page 0 space, and shunt it over ...

From: J KISHIMOTO
To: ALL

Can someone tell me what the current version of TML Pascal is now? Also how the heck do I get an upgrade . I sent in the registration card (last year) but haven't heard anything yet. Any suggestions?

From: DAVID THOMAS
To: J KISHIMOTO (Rcvd)

Latest version is 1.50A which I have and obtained over the 'phone by quoting my registration number and VISA card - cost is $10.00 which I think is not bad at all. Good luck.....

The developers forum on TABBS welcomes software enthusiasts of all grades and abilities, whether you use an AppleII+ or a Mac IIx.

The debates are lively, interesting and informative. This small selection only scratches the surface of the mass of information available.

To share your knowledge and learn from others, call TABBS now on Data Line [illegible]

From: ANDREW MASKELL
To: ALL

Thanks to Stuart Anderson for prompting me to ask this question. Does anybody know anything about how the finder passes file data to an application such that it can open the selected file(s) automatically on startup. Likewise, I know that Basic.Launcher can directly launch a basic program from a selector program but I can't recall where I saw the explanation for how it was done. Any ideas? Thanks, Andy.

From: SYSOP
To:ANDREW MASKELL

Sorry to have missed this message first time round ... The Finder passes messages through the MessageCenter, take a look in the ToolSetup calls to see how it works. It is quite simple and neat. I have successfully circled about 20 icons and had them open a program up, and all were reported correctly. Nice to be able to circle a text file, a parm file and a few other things, load the program and then load the stuff in. Just like the Mac, where you click on a file and the host program opens up, loads the thing in, and leaves you where you last finished it!

From: SYSOP
To: ALL

Those of you horrified at the cost of downloading through IPSS from MAUG (Compuserve), will be pleased to know that you can now do it with a simple call to a London number for an overhead of $22 an hour on top of your CIS charges. IPSS gives you an overhead of £45 an hour when you download at 1200 baud! I can explain why if you wan't me to, but it really does cost that much, my first PSS bill proved it! The access is through Computer Science Corporation, and can be made at most speeds up to 2400 baud (V22bis). The process is this:

Dial 01-439-4055 and wait till you get a connect. You will see no prompts, but hit <CR> till you see a '#' Type a 'C' <CR> and wait till you get a prompt. Type 'CPS' <CR> and wait till it asks for Host Name. Type 'CPS' <CR> again and at the prompt log in to CIS as usual. I found that the carrier was a little touchy, and reduced register S9 to a value of 1 to make sure I did not drop the line too easily. It seems a faster and cleaner access than IPSS, and a joy to download at 2400 baud.

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* * * * WORKSHOP 2000 * * * *

Those of you who remember the Apple II workshop held last year at Bidmuthin on Appleworks enhancements and the P.C.Transporter will agree the only complaint was that the day went too quickly. The meeting was full to bursting. Steve, Mark and Lizzie of Bidmuthin found it difficult to keep up with your questions and enthusiasm for the products on display. I have at long last pinned them down to a date for another Workshop, so get your diaries out and make a note for Saturday 11th March, 1989. You will be sure of a very warm welcome and much to interest you.

Date and Time
Saturday
March 11th 1989
10am - 4pm

Subjects
Latest Apple II developments
G S Works
Networking Mac and GS
GS Operating System
Lots more that's new to you

Venue
Bidmuthin Technologies Ltd
214 Kenton Road
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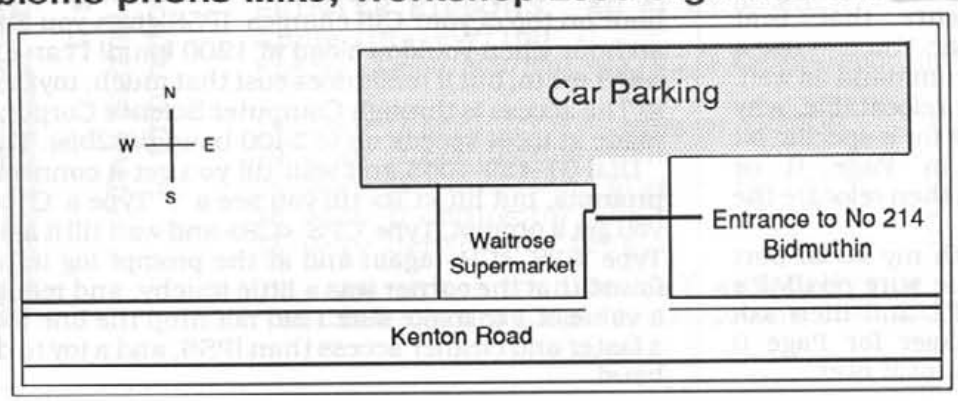
Middx

Last time some of you had difficulty locating Bidmuthin. It is situated above and behind the Waitrose Supermarket. Ample car parking facilities are available at the rear. Nearest tube station is Northwick Park (5 mins walk) or Harrow-on-the-Hill (5 minsTaxi). Both on the Metropolitan line.

Any problems phone Mike, Workshop 2000 organiser on [redacted]



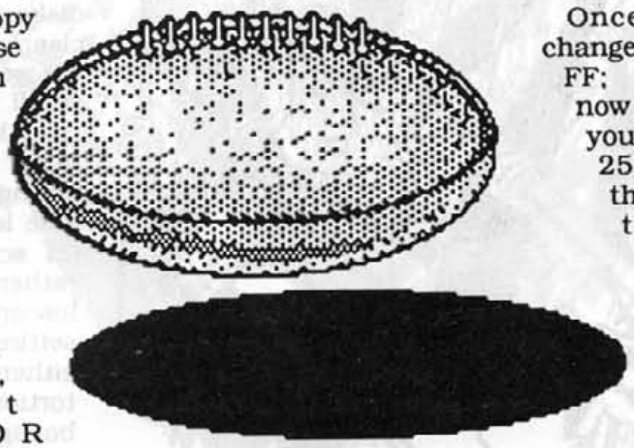
Cheats Corner

If some of those "entertainment" programs are getting to you, Len Cavanagh's tips just might help

Beyond Zork

This cheat allows your character to start the adventure with the maximum attributes possible. But first I advise you to make a copy of your original Beyond Zork, as we will be writing directly to the disk.

Boot up your copy of Beyond Zork and begin a new game. You must now create your own character, giving each attribute 11%. This character must now be saved to disk.



Using Copy II Plus choose COPY from the main menu. Then select BIT COPY 3.5 from the option menu. Once the 3.5 utilities are loaded, select SECTOR EDITOR and press 1 or 2 depending upon which drive your copy of Beyond Zork is in. Now press S for scan, then H for hexadecimal. Enter the following sequence of numbers:-

0B 00 0B 00 0B 00 0B 00 0B 00 0B

(0B being 11 in Hexadecimal).

Once found, change these six 0B's and the following 01 to any number between 00 and $63 ($63 being equal to 99 in decimal); the 01 indicates your Armour class. Now write this sector back to disk.

Your character should now be somewhat better prepared for the forthcoming encounter.....

Silent Service

With this game you normally have 80 shells for your deck gun, which, just never seems to be quite enough.

Using the SECTOR EDITOR as above, scan for the following sequence in Hex :-

08 C6 19 F6 50

Once found change the 50 to FF; this will now increase your shells to 255. Write this back to the disk (which isn't the original ,is it?).

For anyone with the IIe version of the game, the sequence to look for is :-

08 AB 43 F6 50

Len Cavanagh.

If you have discovered something unusual about a game, or you have a tip about a serious piece of software, share your knowledge with other Apple2000 members by writing to the editor at the PO Box address.

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SuperSounds

Paul Warwick reviews an add-on board for the MDIdeas stereo card for the Apple IIGS

As mentioned in my review of the MDIdeas stereo card in the December 1988 issue here is a review of an add on card that allows audio sounds to be captured by the Apple IIgs, edited and finally saved to disk for future use.

After my impressive encounter with the stereo card I decided to purchase the audio digitizer add on for this card so that I could capture audio sounds in digital format which could then be later used in various applications. The card arrived in a few days in the same type of well padded box that contained the stereo card, this time the contents included a 3.5" disk containing the editing and digitizing software, a dozen or so pages of manual and the card itself.

The Stereo card was not the largest of cards measuring only 100 x 70 mm but the add on digitizer card is even smaller at only 60 x 70 mm. The card has a edge connector socket at one end and this plugs onto the stereo card, this and general notes on installation are well covered in the manual and no difficulties were experienced with the installation.

Unfortunately no lead is supplied in order to connect the phono socket on the card to your audio source and this is something you will have to make or buy from a local electronic or Hi-Fi store but this should not present any problems. It is mentioned early on in the manual that the digitizer is slot dependent and you should therefore make a note of the slot in which you install the card, I used slot 2 which would be shared with a modem on port 2.

At this point I think I should mention that if your machine has less that 512k installed you will soon find that audio digitizing is RAM hungry and when digitizing at 27kbytes per second 512k will only enable about 19 seconds of sound to be stored, you can however lower the sampling rate (min 10kbytes per second) to extend the sampling time but below about 20kbytes per second severe quality loss sets in, however having an excess of RAM ie. 8megabyte will be great until you come to store the sound on disk, you will require an 80 megabyte hard drive to store ten files!!!!

A compact disk is suggested as the sound source for best results, I also used turntable, cassette and a microphone plugged into the cassette deck all with excellent results.

The software supplied with the digitizer card allows audio to be entered via the IIgs Ensoniq chip then modified, played back and finally stored onto disks. The manual clearly describes the setting up of a small preset on the card that tailors the input signal strength to a suitable level using an on screen display rather like an oscilloscope. Incorrect setting will cause either chronic distortion or excessive background noise. Once set up you may run the editing software where you are presented with the familiar menu bar type screen all of whose commands are explained in the manual and with the aid of this I found entering single channel audio from any of my sources was a simple matter although saving an 800kbyte file to a 3.5" disk becomes a rather tedious business and the hard drive speeded this side of things up considerably.

Capturing a stereo signal is not so simple, this must be done one channel at a time, and it involves

some trial and error in appertaining how much time to allow for one channel in order not to use more than half the total RAM available, for example if you have 1megabyte of RAM and use 756kbytes for the left channel (which by the way is always the one entered first) you will only have 256kbytes remaining for the right channel and this channel will therefore finish long before the left channel. I think some form of RAM usage meter on the screen would have made this option simpler to use, there is then the problem of editing the channels to ensure the start and end is synchronized.

The editing, which is applicable to both mono and stereo samples gave me a few problems, although the manual explains how to move and delete parts of the displayed wave form I had tremendous difficulty in achieving the desired result and more often than not when I did eventually get the finished product I was not sure exactly how I done it! Under preferences you may change the sampling rate, the playback rate, auto-repeat, reverb and volume as well as specify which slot your card is in (you did make that note before putting the cover back on your GS didn't you?).

The manual also contains a troubleshooting section and some hints and tips. I spent several hours playing with the digitizer card and saved about eight or so 3.5" disks of sounds some of which are quite impressive, well I think so! While I was initially impressed with the card I have not used it a great deal since and feel it is not as useful an item as the stereo card, unless you want to impress your friends with your Apple IIgs introducing itself in YOUR VOICE !

If you have some software for the Apple IIgs capable of playing sound files and the full 1megabyte expansion card installed then I can offer anyone interested who sends up to four blank 3.5" disks with the return post paid some samples of sound files saved with this system they include a Fair Organ, Drum solo, Music 1, Music 2.

Please send to SOUND FILES, P.Warwick, 34 Heather Shaw, Trowbridge, Wiltshire, BA14 7JS.

I purchased both cards from MGA Microsystems, Kent, since then the price has been reduced so call them for details.

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and

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FALCON TIP

If you have had difficulty getting your copy of F-16 Fighting Falcon to run on your Macintosh, then the cause of your problems may be very simple.

Falcon is very sensitive to any changes to the Mac's memory map. Any "inits" loaded into memory before Falcon has booted will cause the program to hang.

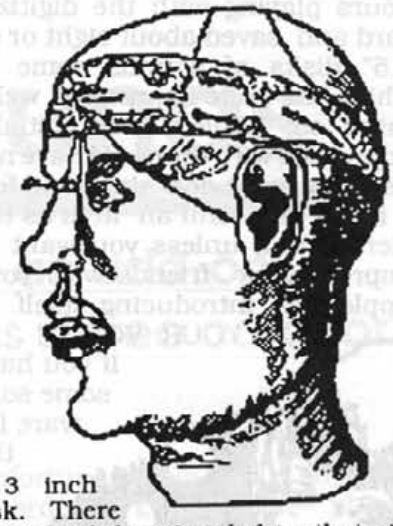
Most people are on to System 6 by now, so the best thing to do is to boot from floppy. However, one final bit of memory juggling could have overlooked your attention. The RAM cache values are held in battery backed RAM, so you must turn off the cache from the System 6 control panel before rebooting the machine from the Falcon floppy.

Yes it is horribly messy, and it gets worse if you have a large screen because you have to disable it as well. You can automate most of these chores using the Macromaker, but is it worth it???

Find out in the April issue, when a RAF navigator joins us on a flight in the Falcon and gives his comments!

The Boffin

The Boffin answers your problems



Dear Boffin,
I use a Mac SE with 20 mbyte hard disk, linked via AppleTalk to a LaserWriter+ and via MacLink Plus to an Amstrad PC1640. I also output from a DEST 2000 scanner for graphics and OCR. My Amstrad is linked to a DMP 4000 printer.
1. Can I output text from the Mac SE direct to the DMP 4000 to save the cost of toner etc?
2. Can I print from the Amstrad PC 1640HD20 to the LaserPrinter if I want better quality?
3. I have an author using an Amstrad PCW8526. My DEST OCR software does not like his dot matrix output. What is the best and most economical way of accessing his work? Can I buy a stand alone disk drive for his disks, or would a modem be a better bet to access his files?
Clive Read, Alicante, Spain

❑ 1) The printer port of the Mac SE outputs serial data at 9600 baud. If your DMP printer is capable of serial input, then you could possibly use it to print from the Mac in draft mode. There are adaptors available that will convert serial data to parallel allowing the use of normal Centronics style printers on the serial port of the Mac. However, the Mac always thinks that an ImageWriter is connected to its port. It will therefore usually only send bit-image information, rather than the usual ASCII. You may therefore find that only draft mode produces any usable printout.
2) The LaserWriter is usually interfaced with AppleTalk, though it does have a conventional serial port as well. The Amstrad PC 1640 will have a parallel printer port. Even using the serial input you will have problems with sending data to the LaserWriter. You would be only able to print with a limited range of fonts and sizes. If you have a PostScript driver on your Amstrad you would be able to do more. The IBM AppleTalk card should fit into your Amstrad and can link directly to your existing AppleTalk and LaserWriter. This card comes with software allowing laser output from the most popular of IBM programs.
3) The PCW series of Amstrads all use a 3 inch disk. There is no stand alone 3 inch drive that will connect to the Mac. The simplest solution is for you to use a modem at both ends, and transfer the text files over the phone. Initially try transferring files using Xmodem. If you have problems with garbaged characters (see the answer to the following problem), then try transferring using Xon/Xoff flow control and a word format of 7 bits even parity and 1 stop bit. However you may have loss of data integrity depending on the quality of your phone lines.

Dear Boffin,
1) I have a Sinclair Spectrum that I use for writing text. I have tried to get this text into the Mac using its RS232 like interface. I have succeeded in getting it into IBM and BBC computers, but Red Ryder does not like it. It would be nice to transfer Prestel Screens. ASCII text would be good enough though.
2) When using Multiplan on a Mac Plus, recently upgraded, I find I continually run out of memory with a modest sheet. I don't think I found this problem before the upgrade. Any suggestions for a cure?
EG Matthews, Wimborne

❑ You may be having a problem that often arises with direct connect of two computers and data transfer. ASCII only needs bits 0-6 of the byte to hold the data. Often the 7 bit is used for other purposes. In the Macintosh and the IBM this is used for alternate character sets. If the data has this bit set, then it can come over as complete garbage. The answer is to use 7 bits even parity and 1 stop bit to strip any spurious hibits from the data.
The other problem concerns the handshake flow of data. This is done in one of two ways, either by hardware or software. Hardware handshake requires that all the control lines be correctly made. The Carrier Detect line or CTS line then controls the flow. The alternative method is by using Xon/Xoff flow control.
With Red Ryder I would suggest using a word format of 7 even 1, with Xon/Xoff flow control and capture the data to a text file.
Prestel or Viewdata screens are not constructed from normal ASCII. There are many embedded control codes with the text and graphics. Programs are available that can strip out the control codes from these screens, but they may still leave a great deal of spurious data from the graphics. It really needs a custom routine to be able to make much sense of it all. Such a routine is included in the enhanced version of Gazelle for the Apple II.
Running out of memory is a common problem these days. Your upgraded Mac has much larger Roms in it than it had before. You may well be using a newer system as well. Each new system is larger than before. What you may have just got away with before, may no longer be possible. If you use Multifinder, this takes up a great deal of space as well. Desk accessories and fonts are also great eaters of memory. Try cutting out the fonts, desk accessories and init files that you do not use very often.

Dear Boffin,
I own an Apple //c which I use on an occasional basis only. What reasonably priced printers are compatible with the //c? Preferably single sheet feed and with easy to change type. It would only be used as a word processor.
H Skilbeck, Ringwood

❑ There are too many printers to be able to make any recommendation. You should try and get hold of an ImageWriter if you can, either new or secondhand, as they will give you the most compatibility with word processors.
The //c like all the Apple computers with built in ports, outputs serial data. Most of the cheaper printers have only a parallel printer connection. You should look for one with serial input.
Only daisy wheel printers have truly interchangeable fonts. If however you use a dot matrix printer that has a graphics mode, then you can use the many programs that will allow printing with custom fonts. AppleWorks with Timeout SuperFonts for example uses standard fonts that are used on the IIgs and the Macintosh. This means you have many many fonts available.

Dear Boffin,
Is there an Apple version of Logo for a II+ and is there an Apple version of Prolog for my II+?
Can I alter my II+ to generate lower case letters and if so how is this done?
I have a printer connected to a Nimbus, what cable do I need to connect the printer (an Epson MXIII) to my Apple?
B McHugh, Bishops Waltham

❑ Terrapin Logo is listed in the MGA

Softcat catalog for £87.95. I cannot find reference to Prolog on the II+.
If your II+ is one of the later models (these have a piggy back control board attached to and under the keyboard), then you can replace the character generator ROM with a 2716 EPROM. This EPROM can be burned with a suitable lower case character set. You will not however be able to generate lower case directly from the keyboard, though many programs designed for the II+ allowed you to toggle lower case with command such as Ctrl A or Ctrl L.
You will first need to get a parallel printer card such as the Champion card, to be able to connect to your printer. You will need the correct Champion card and a cable to go from the card to the Centronics connector on the printer. MGA supply both the cards and the cables.

Dear Boffin,
I have an Apple IIgs, ImageWriter II and Supercalc 3a.
When I had my Epson RX80 printer, Printer card in Slot 1, I had no problem sending spreadsheets to the printer.
Now I have the ImageWriter in Port 1, and selected the correct information and Apple IIc Port from the menu, it refuses to send to the printer.
What am I doing wrong, or is this program not compatible with Apple IIgs Port 1?
DB Pearce, Bishopstone near Seaford

❑ I am not sure how Supercalc is using the printer port to know precisely what is going wrong. The hardware of a IIgs port is not the same as a //c port. It is only a 'lookalike' to the Super Serial card or //c port as far as firmware is concerned. Supercalc may be trying to address the //c port directly, in which case it will fail. Try using another printer option and see if you can get one of them to work. Try the Super Serial card option for instance. Make sure you have the Control panel set to 9600 baud. All the ticks should be on.

Dear Boffin,
I have a number of IIgs machines connected to an ImageWriter on an AppleTalk network. I have successfully printed from AppleWorks on to the net, despite Apple UK telling me it could not be done. Can I print Pascal files as well?
Will it be possible to partition a hard disk for both Pascal and ProDOS?
Will the method for connecting a 5.25 drive mentioned in the December Apple2000 allow the Scan option to be used?
We wish to transfer AppleWorks files to a Mac Plus. I can use Apple File Exchange to read the 3.5 discs, but not sure how to get MacWrite to accept the word processor files.
IBN Smith, Chelmsford

❑ Apple Pascal can only think of the printer port as being in Slot 1, so it will be unable to print to Appletalk directly. You would need to convert the text files to ProDOS and send them from that environment.
At present, GS/OS has only got FST's (File System Translators) for ProDOS and the CD Rom. We expect FST's for Pascal, Macintosh etc. to come along later. When these do, you will be able to format a partition as any of these language types.
If you connect a 5.25 disc in the way that was suggested in the December issue, the Scan optiom will work correctly.
The predecessor of Apple File Exchange was called Passport. This came with a full set of Visas to allow you to convert AppleWorks text and spreadsheet files to MacWrite and Excel format respectively. Although these Visas appear to load into AFE, they do not seem to work there. Try to get hold of a copy of Passport and its Visas. It was originally issued to software developers through APDA and the ADG.

Dear Boffin,
I have an Apple II clone that does not seem to want to run ProDOS. When I try to boot a ProDOS disc it gives me the message 'Unable to Load ProDOS'.
Is it possible for me to use a ProDOS disc on this computer.
Nick Hunter, Bath

❑ ProDOS checks to see if it is in an Apple computer. If it is not then it refuses to run. You can patch a copy of ProDOS that will run however.
Do the following from Basic:

] CATALOG (to see the ProDOS file length)
] UNLOCK PRODOS
] BLOAD PRODOS,TSYS,A$2000
] CALL-151
* 265BEA EA <CR> for ProDOS 1.0.1
* 269EEA EA <CR> for ProDOS 1.1.1
* 280C:EA EA <CR> for ProDOS 8 1.2
* 282B:EA EA <CR> for ProDOS 8 1.4
* Ctrl C <CR>
] BSAVE PRODOS,TSYS,A$2000,L the length it has
] LOCK PRODOS

This patch is from a letter in Nibble Vol.5,#8.

Dear Boffin,
I tried changing the filetype of fonts to $F4 to use with Publish It! as mentioned in the December issue, and have had no success. What did I do wrong?
Les Roberts, Trwobridge

❑ Ewen Wannop has an appology to make. He did not check the filetype carefully enough. It should be $F7 not $F4 as he said. Make sure you have the altered fonts in the same directory as the Publish It! fonts.

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The Nibbler

On the IIgs front, the big news to report is that Claris have finally released AppleWorks GS. Those of you who have been following the story so far, will know that this program started off life with SyleWare as GSWorks. It was due to be released as such last summer, but after Claris took one look at it, they liked it so much they bought the company! The future of the other titles from StyleWare's stables is in question.

The launch was delayed while changes were made to the program, and now finally we have seen it released in the States. At the time of writing, we understand that Claris UK will be releasing the program, in due course. It should retail for around £200.

AppleWorks GS is a suite of six programs, twice as many as its parent AppleWorks. The programs include a word processor, a page makeup program, a spreadsheet, a database, a terminal program and a paint program. The idea is that you would never have to buy anything else!

As of course expected, it handles all existing AppleWorks files. It is recommended that you have a minimum of 1.25mb memory (basic memory and 1mb GS expansion), but if you want to use large files that you may already have, it is reccommended that you have at least 3.5mb!

It suffers from the loading problems that have plagued all GS users from the start. However, like its parent, all the various options are in modules. You can configure the program to load the modules you want on boot. You either save time here, or later, depending on your choice.

I was very impressed with my first look at the program. It is the first piece of serious software for the IIGs. The wordprocessor is a much improved MultiScribe, the page makeup program is like PageMaker, the spreadsheet is mouse driven, the database gives full control of report layout, the terminal program has file downloads and the paint program is simply MacPaint in color!

We shall be bringing you a full review in due course.

Need a spare part?

We carry an advertisement in this issue for the Acme Computer Service Company. This company sells, beside other products, spare parts for the Mac. I know other dealers do supply these things, but none are so positive about the 'do it yourself' approach to Mac repairs. I had often thought what I should do if a mouse or keyboard went down. Now I know where to get them and what it will cost me. Other dealers should take note, and also offer to supply such things. Bidmuthin already list logic board exchanges, but wouldn't it be nice if you could simply drop in to your local dealer and buy a new mouse off the shelf? I may find myself shot down over this suggestion if the dealers already provide this service, but how many members have received the response "We shall have to order this from Apple, they may not have it in stock, and it does take time ...".

Fax for all ...

The Acme Computer Service Company also list a Fax modem for the Macintosh. The FAXstf allows full Group III Fax facilities from the desktop. Those of you who are members of The Force have been able to send a Fax from your mailbox from last December. The service is operated much like the Telex service. You will need to go to the Gold prompt and type 'FAX' to send a message. Messages can be prepared in advance in the usual way, and they will be sent as a text image to the receiving machine. At the moment, you cannot receive a Fax, but I gather they are working on this using OCR technology. The cost is a minimum of 45 pence for a short message and rises according to the length of text. Type 'HELP FAX' at the Gold prompt for further details.

Battery packing up?

Some members owning IIgs computers have had a problem with the failure of the battery that backs up the clock Ram. This battery is a Lithium type and should have a life of 5-8 years. If it has failed, you should take the machine to your dealer for a replacement battery. The assumption here is that the computer is only expected to last for 5 years! From the Macintosh SE onwards, these batteries have been fitted to keep the clock going when your are powered down. As the battery is soldered onto the motherboard, do Apple expect us all to change our machines after 5 years?

Compatability

We have been asked if we could publish a list of programs that will not run using the new IIgs Rom or GS/OS operating system, and where to get upgrades for these programs. Firstly there are too many programs and not enough time for any of the existing team at Apple2000 to be able to do compile such a list directly. However, if anyone can list their own findings and send them to us at Apple2000, we shall compile these into a list for a later issue of the magazine.

If you have registered your program with the distributor, you should write to them initially for updates. You could try dealers like MGA and Bidmuthin who may also be able to help. MGA is in the process of becoming a Beagle Buddy update centre. We wish them well in this venture, as it will mean they can provide updates to the excellent Timeout series at a more reasonable cost and route than writing off for them to the States.

Incompatiblity

On the same update theme, we have had some interesting information supplied to us from Peter Davis. He heard that Claris were

releasing the 2.1 upgrade to AppleWorks (part 8-35-008B). It was announced in the American press that this was to be a free upgrade to registered users. Peter promptly registered his copy with Claris in the States, and for the cost of the stamp, received his 2.1 upgrade. Think of his amazement to see an advertisement from Frontline Apple Products Division of Basingstoke, offering AppleWorks 2.01 upgrade for £50. Note that this is not even as new as the 2.1 version that he already has received from Claris in the States. He also thinks that the 2.01 version is simply version 2.0 with a Claris UK label.

Ticking off time

As this upgrade offer for AppleWorks ran out at the end of December last year, Peter chides Apple2000 for not telling its members about the offer in time. He points out that we must have known about it through electronic mail in plenty time. I can only apologise on behalf of the group. Our excuse, we are overstretched as it is, we need more help to be able to keep you up to date with all that is happening.

Those who have got the 2.1 upgrade for AppleWorks from the States, will find that many of the Timeout utilities will simply not work anymore. By the time you read this, Beagle should have released updates to cope with this. The No Slot Clock patches to ProDOS will need upgrading as well.

Do it yourself

The American Computer Shopper has published a series of articles on building your own Hackintosh from component parts. I would like to hear from any members undertaking this project. Whether they have had difficulties getting the parts, and whether there were any pitfalls over the construction. If they are successful, we would love a blow by blow account for the Apple2000 magazine. The same magazine has had a series of articles on building your own SCSI drive as well. I am in the process of converting my 20SC, which has at its heart a Seagate 225N unit, to a 60SC. This I expect to cost me around £320, some 5 minutes to physically change the units, and a little time getting it formatted. I shall sell the spare drive to offset the cost of the upgrade. If you want to do this kind of thing yourself, lookout for a Seagate 277N SCSI drive. If you want to build your own 20mb SCSI drive from scratch for as little cost as possible, all you need is a Seagate 225N unit (around £200), a small power supply with standard IBM power connector, a miniature 12v fan, a 50 pin IDC connector, a 25 way D plug on a piece of ribbon cable and of course some time and a soldering iron. If anyone succeeds in doing this, can we again have a blow by blow account for the magazine please.

A new Magazine

The American Computer Shopper has spawned a UK version. This is published monthly by Dennis Publications of MacUser fame and is excellent value at 78 pence. Amongst other computers, the magazine features the Macintosh and the Apple II. Take a look, it makes an excellent alternative to the ubiquitous Byte or Personal Computer magazines.

John Molloy gives Apple2000 a mention in his piece in the December issue.

The Nibbler

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PlusDisk SC

Ewen Wannop takes a look at a supersonic SCSI drive

The first thing that every computer owner discovers is that however much memory or disk storage you have, you can always do with more. Many of the programs we use these days are so large they may not be able to hold themselves completely in memory and will in fact layer themselves in and out of memory as needed. With programs that handle large files the actual file may be held as a virtual file on disk rather than in memory. Those who use DTP will be used to constant disk access as they make alterations to the page.

It is now almost impossible to use many programs without a hard disk, and in the case of PageMaker 3.0 it cannot even be run without being first installed on a hard disk.

This constant disk access all takes time, and even with the fastest of hard drives, it can be quite frustrating waiting for things to happen.

It is possible of course to create a Ram disk in memory, and use this to store the working file. However, on a basic 1 megabyte Macintosh, this may not leave enough memory for the program to run.

The solution to these problems on the Macintosh is now at hand.

A small company in Scotland has been making Ram cards and other devices for the Apple II range for some time. One of their most successful devices has been a Ram card using low power Cmos devices and fitted with battery backup. This card can hold data for up to three months after the machine has been switched off. It is possible therefore to write a letter, save down as a word processor file, take the Ram card out of the computer, mail it around the world, plug in and read the file in another Apple II computer.

Cirtech, for such is the company called, has now put the contents of this Ram card into a box, fitted it with a SCSI interface, and marketed it as the PlusDisk SC. This box can be connected to and formatted with any SCSI interface, from the Apple II through to the Macintosh.

The main drawback at the moment, and the reason that this kind of thing has not appeared before, is that memory is still very expensive if it is in the form of a chip. Byte for byte, the hard disk is still the cheapest form of storage.

Advantages

The main advantage, and the reason to consider a PlusDisk SC in the first place, is the very fast access it gives. The Ram disk is much much faster than even the fastest hard disk. Formatting a disk is almost instantaneous, and copying files is achieved at a phenomenal rate.

This means that it can dramatically cut the long waits that you would normally experience when working with programs like Pagemaker.

The disk behaves exactly like any other SCSI device, and can be named, erased or copied in the normal way.

A note of warning here for the Macintosh Plus users, their SCSI interface has a maximum data transfer rate that is about half the speed of the SE or the Mac II, so they will not get quite the same improvements in speed.

The PlusDisk SC is much smaller than a normal hard disk, and with very little inside of it, is very light in weight. There is very little heat generated, and so the PlusDisk does not need a fan, also chips do not emit noise, so the PlusDisk is totally silent in working. The box is a little taller, but of the same size as an external disk drive. A separate battery charger and power supply is provided in a plug, rather like those issued with cassette recorders.

Disadvantages

Memory chips are still expensive, and so to fill the PlusDisk with a great deal of memory is very expensive indeed. I would suggest that a configuration of about 1 to 2 megabytes would be quite sufficient to hold average files, and to allow plenty of space for most programs to comfortably work with. You would not realistically use a PlusDisk for any long term storage of data, rather you would use it as an adjunct to a normal hard disk to speed up access times.

Data is lost of course after the battery runs out, though Cirtech guarantee three months or more before this happens. The unit must be connected to its battery charger while you are working, and is constantly under charge.

Conclusions

For those who find that valuable time is being lost during heavy disc access with some programs, the PlusDisk offers a considerable saving of time. If the day comes that chip prices tumble to a sensible level, then it will offer a superior alternative to the ubiquitous hard disk.

Look out for new products from Cirtech. They have a long way to go yet! Apple II users for instance can now get a Ram card only 7 by 2 inches having 16 megabyte of dynamic Ram on board. This gives the storage capacity of the average hard drive on a single card inside the computer. Apple II users often have more than one slot free and so can fit more than one of these beasts!

Timings

Timings were made with PageMaker 3.0 and a fifteen page document 281k long. To open the document from a hard disk took 16 seconds, PlusDisk took 12. To change from one page to another and redraw the screen took 10 seconds on the hard disk and 4 seconds on the PlusDisk. To SAVE AS the file took 22 seconds on the hard disk and only 6 on the PlusDisk. These timings give an idea of the time you will save.

Availability

PlusDisk SC is available from Bidmuthin, MGA, dealers and of course Cirtech themselves.

Ewen Wannop

Prices

PlusDisk SC 1mb	£348.00
PlusDisk SC 2mb	£579.00
PlusDisk SC 3mb	£849.00
PlusDisk SC 4mb	£1019.00
upgrades per 256k	£64.00

info

Product : PlusDisk SC
Manufacturer: Cirtech
Available from :
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SECURITY
Mac Security Kit–protects and immobilises you Macintosh. Can be installed on the Mac II, Mac SE, Mac Plus or Mac 512K in less than five minutes.

CARRY BAGS
Mac Carrying Bag–made from high quality cordura fabric with good padding. Allows you to transport your Macintosh easily and safely.

DUST COVERS
Plastic Dust Covers–protect your Macintosh from damaging environmental elements : smoke, dust particles. Fold for easy storage when not in use.

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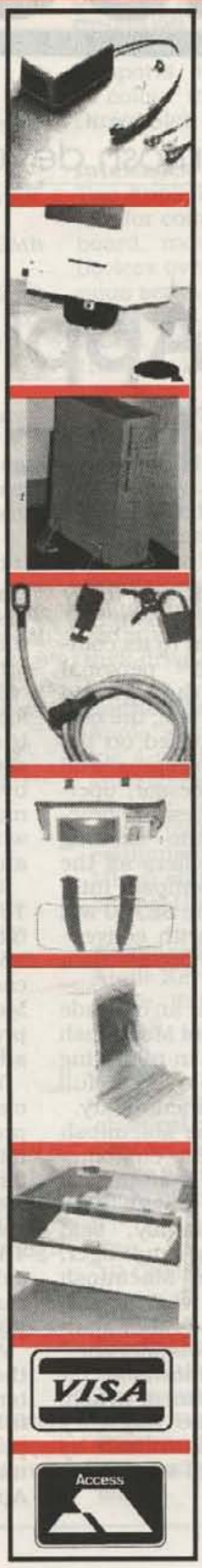

Macintosh Accessories

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MacChat

Apple Announces New Machine!

Latest Macintosh developments.

Apple's latest - The Macintosh™ SE/30

Apple Computer UK Ltd today announced the Macintosh SE/30, a major extension to its compact Macintosh SE™ personal computer family. At the high end of the Macintosh SE line, the new Macintosh SE/30, based on the Motorola 68030 processor and 68882 math co-processor, operates at up to four times the processing speed of the existing Macintosh SE and offers all the advantages of the compact integrated SE design. The SE/30 will also provide users with convenient MS-DOS™ and OS/2™ data file compatibility.

Apple will also make an upgrade kit available to current Macintosh SE users interested in migrating their technology to receive full Macintosh SE/30 functionality.

"As we broaden the Macintosh product line to meet customer demand, Apple is maintaining consistency and a growth path within its product family," said product marketing manager, Chris Calvert. "The Macintosh SE/30 achieves this while significantly increasing the functionality and power of the compact line." The product announcement reflects Apple's commitment to help people transform the way they work, learn and communicate by providing exceptional computing products.

Macintosh SE/30 Features

The Macintosh SE/30 is based on the same compact design as the other systems of the SE line. It offers the advantages of a small footprint, transportable and easy to set up machine. The computer accomodates up to eight megabytes of memory (RAM) on the motherboard, a 9-inch black and white high resolution video screen and an expansion slot.

The Macintosh SE/30 uses the 16 MHz Motorola 68030, a full 32-bit microprocessor with separate 256-byte data and instruction caches and a built-in Paged Memory Management Unit which provides hardware support for advanced software cpapbilities.

The system also includes Motorola's companion 68882 floating point co-processor which dramatically increases system performance when executing numerically intensive mathematical software such as spreadsheets. The 68882 can perform certain calculations over 100 times faster than the Macintosh SE, depending on the application.

As an extension to the family, the SE/30 includes identical external interfaces supporting the full range of Apple and third party peripherals, networkingand communications products, such as Apple's built-in LAN, AppleTalk™.

A key feature of the Macintosh SE/30 is the Apple FDHD (Floppy Drive High Density), an internal 1.44Mb floppy disk drive that makes the Macintosh SE/30 well-suited for operation and co-existence in a multi-vendor environment. The drive can read and write Apple II™ ProDOS™, Macintosh, MS-DOS and OS/2 diskettes. The FDHD works with 400 and 800 kilobyte Apple II diskettes; 400, 800 and 1.44 megabyte Macintosh diskettes; and 720 or 1.44 megabyte MS-DOS or OS/2 standard density diskettes.

When used with the Apple File Exchange™ utility found in Apple's System Software, Macintosh SE/30 FDHD users gain additonal adaptability and a convenient way to quickly and easily change information between different operating environments. The Macintosh SE/30 user in a multi-vendor office can then share documents, spreadsheets, and other data files simply by transferring a diskette from one system to another. In addition to Apple File Exchange, several third party translation programs are also available to handle the process of converting files from one program format to another.

The Macintosh SE/30 allows access to versatile expansion

cards by means of a single expansion slot mounted vertically inside the machne, the 030 Direct Slot. Several established hardware development companies have already endorsed the 030 Direct Slot strategy and will introduce products to expand Macintosh SE/30 customers' options in communications, external colour and grey scale monitors, add-in memory with parity, and digital signal processor-based (DSP) sound.

Because the SE/30 processor runs at 16 MHz, cards developed for the 8 MHz SE are not compatible.

At MacWorld, to be held in San Francisco from January 20 to January 22, Avatar Corporation, SuperMac Technology, Creative Solutions, Digital Communications Associates, Digdesign Inc., Dove Computer Corporation, Epit Technology, Kinetics, MacPEAK Systems, Micron Technology and Sigma Designs will introduce products. In addition, most existing Macintosh SE software applications are compatible with the Macintosh SE/30 with little or no modification.

The SE/30 contains colour support in ROM which allows external colour screens to directly access the colour capabilities of the Macintosh Operating System.

The Apple Sound Chip provides four voice stereo and full compatibility with Macintosh sound applications.

Detachable SIMMs (Single In-Line Memory Modules) are used for the main memory as well as the 256K system ROM for ease of service and localisation of the ROM by country.

Configurations
The Macintosh SE/30 adds two configurations to the SE family:-

- Macintosh SE/30 Hard Disk 40SC shipped with 2 Megabytes of RAM, an internal 40SC hard disk and a 1.44 Mb FDHD floppy disk drive.

Suggested retail price is £3420.

- Macintosh SE/30 Hard Disk 40SC shipped with 4 Megabytes of RAM, an internal 40SC hard disk and a 1.44 Mb FDHD floppy disk drive.

Suggested retail price is £3935.

Both configurations ship with the required Apple System Software 6.0.3 and HyperCard™.

Macintosh SE/30 systems will be available from authorised Apple dealers from March 1989.

****

Price Changes
Adjustments to suggested retail price of other machines:-

Macintosh Plus	£1355
Macintosh SE with twin floppy drives	£2165
Macintosh SE 20HD with 2Mb RAM	£2665
Macintosh SE 40HD with 2Mb RAM	£2965

Speed Comparison
Unofficial benchmarks:-
1. 10 million SINE conversions

Macintosh SE/30	4 mins 55 secs
Macintosh IIx	4 mins 45 secs
Macintosh II	5 mins 08 secs

2. 2000 SINE conversions on the standard SE 29 secs
2000 SINE conversions on the SE/30 without using 68882 math co-processor 7 secs
1 million SINE conversions on SE/30 using the 68882 math co-processor 29 secs

****

Technical Specifications

Processor
MC68030, 32-bit architecture
15.6672 MHz clock frequency
(supports paged memory management).

Coprocessor
MC68882 floating point unit
(follows IEEE standards).

Memory
2 or 4 Megabyte expandable to 8 Megabyte (expandable to 128 Mb when SIMMS with higher density DRAM chips become available; additional expandability through 030 Direct Slot)
256 Kb ROM
256 bytes of user-settable parameter memory.

Disk capacity
1.44 Megabyte on high density, double-sided 3.5 inch (floppy) disks (external second unit optional).

Internal Apple SCSI 40 Mb hard disk. Optional external SCSI hard disks.

Video displays
Built-in 9-inch diagonal, high resolution 512 by 342 pixel bitmapped monochrome display. Supports optional monochrome or colour monitors through 030 Direct Slot.

Interfaces
Two Apple DeskTop Bus connectors for communication with keyboard, mouse and other input devices over low-speed, synchronous serial bus.
030 Direct Slot supporting full 32-bit address and data lines through 120-pin Euro-DIN connector.
Two RS-232/RS-422 serial ports, 230.4K baud maximum (up to 0.920 Mbit per second if clocked externally).
SCSI interface for external hard disks, scanners, CD-ROM drives and other SCSI devices.
Stereo sound port for external audio amplifier.
External 1.44Mb FDHD floppy disk drive port.

Sound generator
Apple Sound Chip (ASC) including 4-voice wave-table synthesis and stereo sampling generator capable of driving stereo mini phone jack headphones or stereo equipment.
Mixed stereo monophonic sound output through internal speaker.

Keyboards
Apple Keyboard (Standard)
Apple Extended Keyboard (Optional).

Mouse
Apple DeskTop Bus Mouse mechanical tracking, optical shaft or contact encoding 3.94 ± 0.39 pulse per mm (100 ± 10 pulses per inch) of travel.

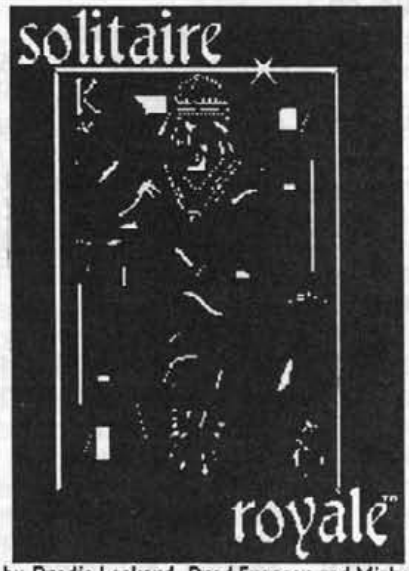
Fan
10 CFM radial.

Input
Line voltage: 120/240 volts AC, RMS automatically configured.
Frequency: 48-62 Hz single phase. Power: 75 watts maximum
Clock/calendar: CMOS custom chip with long-life lithium battery.

Solitaire Royale ™

A review of this interesting card game by Tom Wright.

When a copy of Solitaire Royale arrived for review I was initially a little puzzled at the prospect of a program which has been produced to allow Mac][users to play card games, particularly when I discovered that Solitaire includes games that I had previously called 'Patience' (and still do). It's a long time since I played Patience and I have to admit that I rediscovered the fact that this type of game can be a welcome break from the other kinds of 'management relaxation' packages that are available, keeps the brain active but not too demanding. I hope that this brief review will give sufficient information about the package for you to decide whether or not to add it to your 'must get' list. My apologies for the quality of the screen dumps, some of them haven't undergone conversion from colour to monochrome too well.

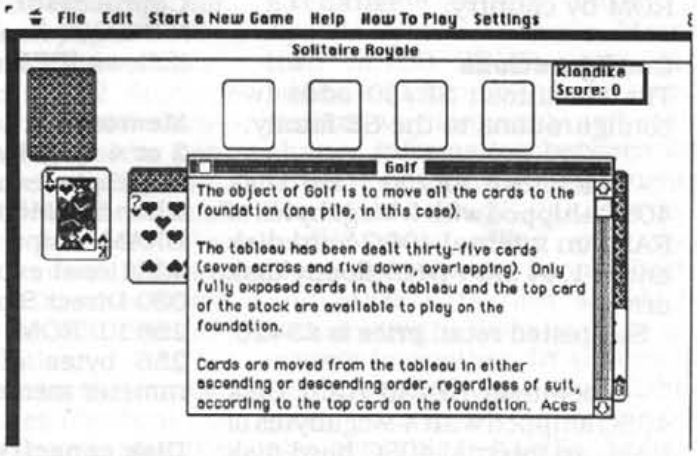


Designed by Brodie Lockard, Brad Fregger and Michael Sandige
Mac version by Brodie Lockard; Original graphics by Dennis Fregger
Cards colored by Brodie Lockard; other color graphics by Jody Sather
A Software Resources International Production
Copyright 1987, Software Resources International

Solitaire Royale's origins are as shown above on the display which appeared when I clicked on the 'about Solitaire Royale' item under the Apple menu, Spectrum Holobyte are the distributors. No information was supplied regarding U.K dealers or selling price, but I see that MacLine are advertising 'Solitaire' @ £29-00, presumably that is the monochrome version but they should be worth an enquiry about the colour version.The review copy was clearly marked 'MAC][' and since the manual doesn't appear to mention anything about hardware specifications I am unable to say whether or not the colour version of the game will run on a Mac 1 at all, it will obviously run in mono on the Mac][.

The manual is generally well written and includes a short history of 'solitaire' and 'Patience' as well as references to both old and modern books on this type of game. Guidance and explanation of the various games included on the disk is provided from within the program after booting. The following dump shows the main Help menu which provides access to both a description of 'solitaire' and general rules of play; as you can see it also enables cheating if that is the way that you prefer to 'play' card games.

Help and advice specific to each of the games available on the disk is provided from the 'How to Play' menu in the manner shown on the next dump. The descriptions given are clear and easy to assimilate.

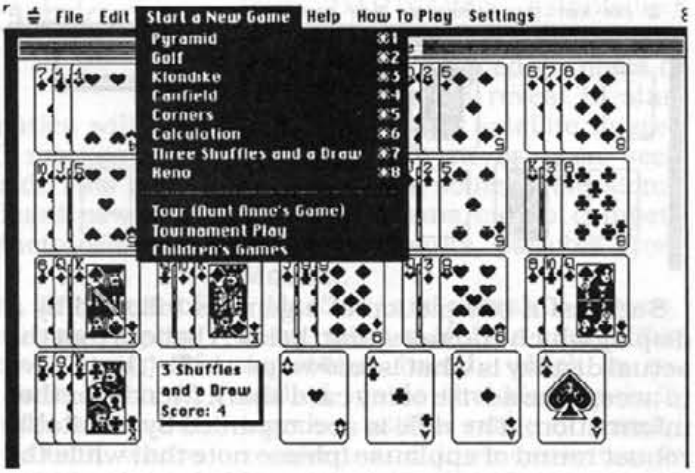


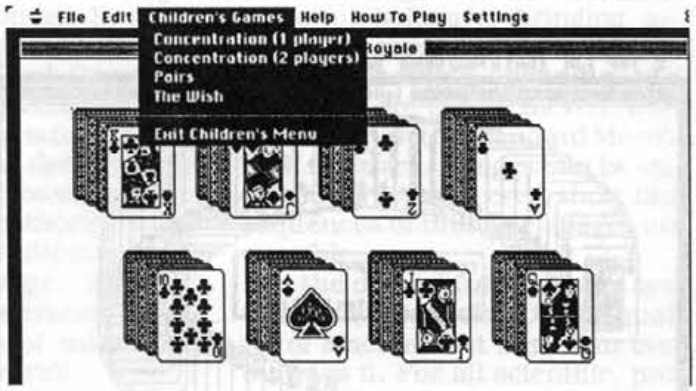
At any stage during or before play it is possible to change various features of the game by accessing the options available under the 'Settings' menu. Al-

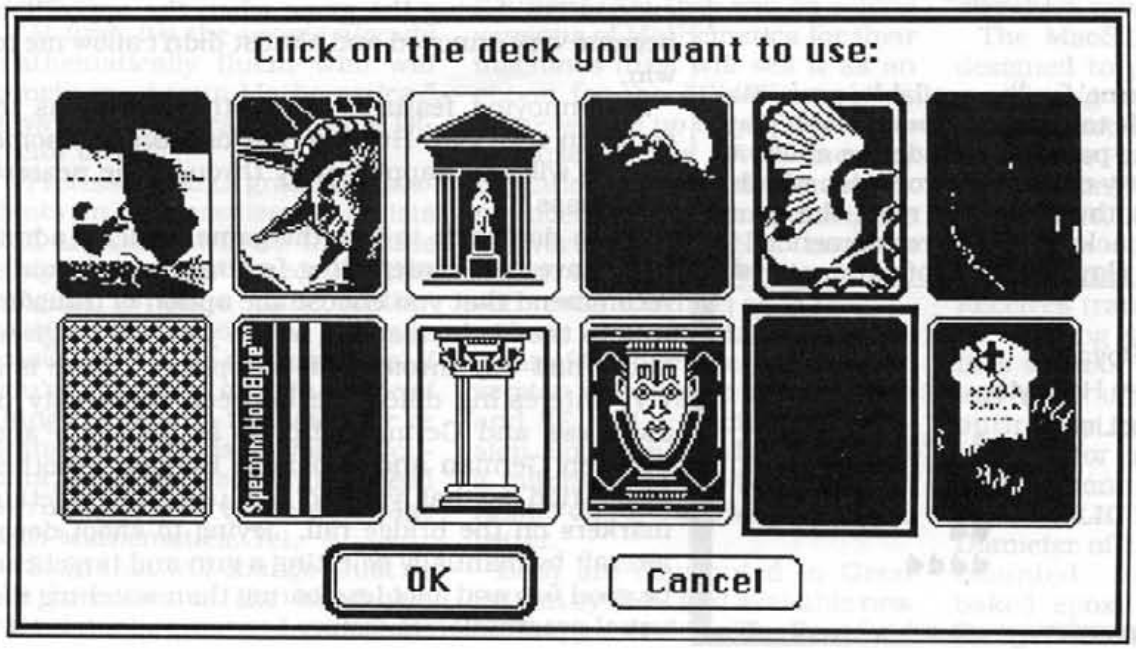
though sound effects is included as an option the choice available is limited to a very basic clicking noise to simulate the card deal, or no sound at all, this is just about the only feature that did not impress me too much about the package. 'Drag Cards' is there if you want it but it is in practice a cumbersome method of moving the cards. Rodent haters will be pleased to note that 'Command Key' equivalents are available so that you can get on with the game instead of fooling about with the Mouse.

Choosing a new design for the deck simply involves clicking on the preferred design and then the 'O.K' box. Selecting a new deck also changes the design used for the front of each card while all of them are very attractive individually some of them are none too clear when used in an actual game due to the confusing nature of the resultant multi-coloured display. The available twelve options for the back of the playing cards are shown below and an idea of the designs for the front of each card can be obtained from some of the other dumps.

Eight adult games plus another four for children are accessible from the 'Start a New Game' menu. The 'Tournament Play' option enables competitive play. 'Tour' results in each of the adult games being presented in turn for you to solve them (some chance of that !). A Tour score card is available which displays your level of achievement in each of the games played during the tour. I hadn't heard of most of the available options before and had to resort to the 'How to Play' menu on a number of occasions, even with that help I didn't manage to solve any games in several of the options, patience is very definitely necessary.

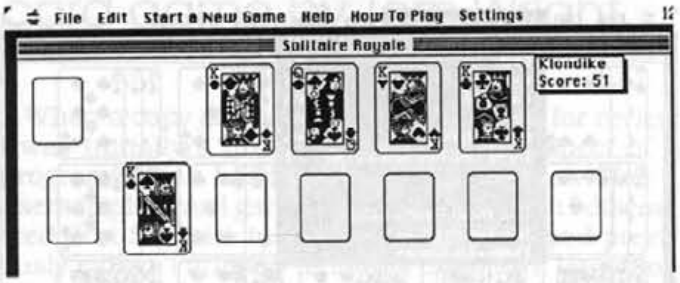




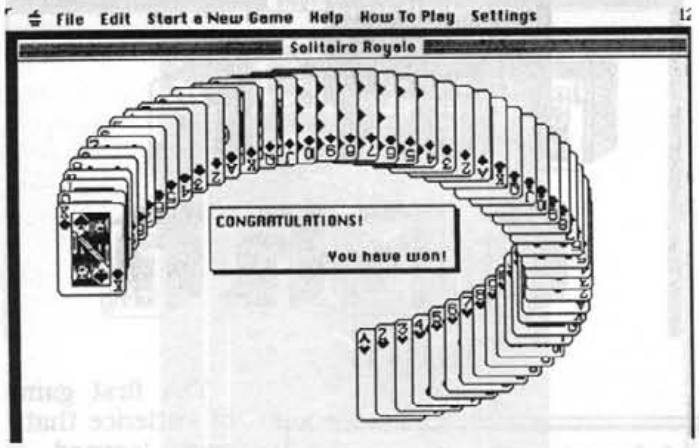


The first game of Patience that I ever learned is called Klondike in Solitaire Royale and is used to demonstrate the game score card in action below. All of the games available either involve achieving movement of cards to the foundation or from the screen, Klondike is one requiring movement to a foundation. As each card is placed on the foundation or removed from the

screen the score card is automatically updated. Klondike is shown one card from solution in the following dump. An interesting point about Solitaire Royale is my suspicion that you are always allowed to win the first game, possibly I was just lucky each time that I tried the package but all my first games were solved when playing both Klondike and Pyramid. On reflection I never did choose any of the other games for the first outing of each session, perhaps somebody can let us know if all games are winnable on the first outing ?



Successful completion of a game is followed by a display which ends as shown below, I believe that the actual display is what is known as a 'riffle', but I have to accept the advise of my card shark friends for that information. The riffle is accompanied by a suitably robust round of applause (please note that while the applause may be gratifying to the player it doesn't go down too well with the rest of the family at 3 a.m.).



There is a 'Save Game' facility available, presumably in case you decide to engage in tournament play. Other features of the package include the ability to set the desktop to any colour that you wish which I found useful, as is the ability to reset the score board.All in all this package is to be recommended to anyone who enjoys playing games of patience.

info

Product : Solitaire Royale
Publisher : Spectrum Holobyte
Available from : MacLine
Price : £ 29.00
Value :
Performance :
Documentation :

More on PT-109

Tom Wright adds a few comments on PT-109

MORE ON PT-109

While looking through the advertising booklet which accompanied Solitaire Royale I noticed the PT-109 game that was reviewed in the last issue of our magazine and thought that one or two more comments might be of interest to anyone thinking of buying the game.

First Ceri's impression of the game slowing down under certain conditions is correct, not just the effect of an adrenalin jag.

Second, if you are a serious wargamer don't bother with PT-109, it is very much in the 'toy' class and despite a superficial appearance of simulated realism it's simplicity does become boring very quickly. My reasons for making this sort of comment include having sunk a Japanese cruiser with a machine gun !! Playing red indian to a group of six destroyers and continually moving round them firing continuously until they were all 'sunk' without any sign of retaliation. Charging head-on into a cruiser merely to be informed that we had collided with another ship and very quickly being restored to full working condition without any reaction from the cruiser. There were a number of other instances of being able to play red indian as well as winning a dual with a cruiser (again with only machine guns). There were only three encounters during the game when the opposition became very annoyed and almost didn't allow me to win.

An annoying feature, which the game has in common with Sub Hunt is that on occasion some vessels will sail happily away through the nearest land mass !

If you do decide to buy the game, which I admit does have some interesting features as a 'game' I recommend that you choose the option of transferring to the Mediterranean which you will be given about half way through the campaign. There is a very interesting difference between the ability of Japanese and German aircraft as depicted, and between German and Japanese Barges. Another suggestion is that you do not use the targeting markers on the bridge rail, trying to shoot down aircraft by manually selecting a gun and target can be good fun and a lot less boring than watching the usual progression to victory.

BETT 1989

The British Education and Training Technology Exhibition at the Barbican.

BETT '89 took place at the Barbican, London during January 18-21 1989. This comprised an exhibition of Computer equipment , software and Book publishers, with a number of free seminars available during the weekdays. Most, if not all, the exhibits were in the Education area. This year again Apple had a stand, with a number of firms showing their latest software, some of which are detailed below.

Mathematica

TMC has been appointed sole UK distributor of Mathematica for Macintosh.

The arrival of Mathematica, from Wolfram Research Inc. of Champaign, Illinois, marks a major milestone in the history of mathematics... and computing. The implications are enormous. Mathematica is software that enables a computer to do just about any kind of numerical, symbolic or graphical mathematical manipulations you can think of.

"At first, it's the people already mathematically fluent who will benefit most from Mathematica," says Jim Mangles, Managing Director of TMC.

"Professors and graduate students in universities, scientists and engineers will be the prime early users. That's because this program is not a tutor. Mathematica assumes you already know how to use mathematics. If you've not been able to think of things to do with the scientific or statistical buttons on your calculator, you'll not feel any great need to rush out and equip your Mac with Mathematica. Yet.

"Soon that will change. Just as the invention of the hand-held calculator has married arithmetic to silicon, Mathematica will now take the rest of mathematics down the same road. This could be the most significant new software product for Macintosh since PageMaker."

Stephen Wolfram, President of Wolfram Research, was responsible for the overall design of Mathematica. He was born in London in 1959 and educated at Eton, Oxford and Caltech, where he received a PhD in theoretical physics in 1979. He is Director of the Center for Comlex Systems Research and Professor of Physics, Mathematics and Computer Science at the University of Illinois. Wolfram's goal is to establish Mathematica as the defacto standard for computer-based mathematics, just as PostScript is established as the defacto page description language. (In fact, Mathematica generates PostScript as its way of interfacing with the outside world).

Sun, Silicon Graphics, Ardent Stellar and IBM have all announced that they will be selling versions of Mathematica for their machines (IBM will sell it as an option for the AIX/RT machine. There will be no MS-DOS version because of the 640K memory limitation. Autodesk have announced that they are porting the software to the PS/2 environment). NeXT will bundle a copy with every machine sold.

There are two Macintosh versions of Mathematica: a Standard version running on the MacPlus and SE and a Macintosh II version. Both require a hard disk and a minimum of 2.5 Megabytes of RAM. Four or more Megabytes are better.

Both are distributed in Great Britain by TMC and available now from Apple dealers. The Standard version retails for £495 and the Macintosh II version retails for £795. (Prices exclude VAT)

MacSat

Weather Satellite Image Aquisition and Processing on the Macintosh II.

MacSat provides a revolutionary method of displaying meteorological satellite pictures on the Macintosh II, in colour. Evolved from DARTCOM'S established NIMSAT system, the increased power and enhanced graphics of the Macintosh II reveal in startling clarity, the satellite images as they have never been seen before. Even some professional weather stations, cannot compete with the results possible from MacSat.

MacSat is a complete system, comprising a NuBus compatible Aquisition board, which is installed inside the Macintosh II, together with a range of aerials, receivers and down convertors to bring the signal to the computer.

The strength of MacSat is its powerful software, bringing astonishing control of the images on screen. Zooming, panning and scrolling are all achieved with ease through the standard Macintosh interface. Images can be visual, infra red and even short film sequences of multiple images are possible.

In the distant future, some systems may come close to the quality of MacSat, but none can ever surpass it. For all scientific, professional and educational uses MacSat is the standard by which all others must be judged.

The MacSat system has been designed to provide the display, processing and analysis of all current meteorological satellite Automatic Picture Transmissions (APT) to the FULL TRANSMITTED RESOLUTION of the satellite sensors.

VHF AERIAL

Receives transmissions from polar orbiting meteorological satellites without the need for tracking. Two crossed dipoles with optimally spaced reflectors phased for right-hand circular polarisation.

PARABOLIC DISH

Diameter of 1 metre, wall or pole mounted. Protected by oven baked epoxy matt black paint. Designed to prevent electrolytic

corrosion of aluminium nuts and bolts.

MAST HEAD PRE-AMP 136-138 MHz

Low-noise R.F. pre-amplifier giving sufficient gain to make up feeder losses of up to 10 dB. Good out of band rejection of unwanted signals. Normally only required if feeder run exceeds 20 metres. Design prevents intermodulation in following receivers. Powered via aerial feeder from the receiver.

DOWN CONVERTER

Converts 1,6945 GHz and 1,6910 GHz Meteosat transmissions to 137.5 MHz for reception by F.M. Receiver. MGF1202 GaAsFET design provides sufficient gain for reception of noise free pictures using a 1 metre dish and feed without the need for a pre-amp. Thermally controlled MIL-SPEC crystals ensure channel stability. Typical results are a S/N ratio of 32dB for 9KHz deviation for a signal input to the converter of -112dBM or 0.5621 µV PD.

SYNTHESIZED RECEIVER 136-138 MHz

Specifically designed to receive FM APT transmissions and to act as a microwave receiver in the 1.9 GHz band when used in conjunction with a down-converter.

Synthesizer provides 10KHz steps between 136 and 137.990MHz with specific channels stored in EPROM (negating the need for crystals). Fully programmed for all known APT and beacon channels.

-LCD Frequency display mode
-'S' meter with remote output
-volume, squelch and tape control
-cassette motor control output
-memory page. Meteosat ch1/ch2, scan (hold, overide, up, down) and DC to feeder controls.
-three Af outputs (internal speaker, 1 volt p-p for aquisition card and adjustable level for tape recording)
-110-240v @ 500 MA (12voption)
-RF bandwidth 3 MHz
-IF bandwidth 50 KHz
-Image rejection > 70dB
-AF bandwidth 400 Hz - 4000Hz

The receiver is housed in a rugged steel case and finished in light grey.

Size: 220mm x 280mm x 65mm.

AQUISITION BOARD

Processes and digitises the analogue signals from the receiver. Demodulates and filters the signal while recovering the synchronus clock. Entire digitisation is then locked to this clock, negating the effects of doppler shift on live signals and tape speed variation on recorded signals. Analogue - Digital conversion is at a rate equivalent to the maximum transmitted spacial resolution. Eight bit (256 level) conversions are performed and all bits are sent to the computer for storage and image processing.

Board is housed inside the MAC II.

Software requires a minimum of 1 Megabyte of FREE RAM. Picture data can be stored on floppy or hard disk and each data file takes up 0.64 megabytes (640K).

1. On screen control of image aquisition for geostationary and polar orbitals.
2. Special in-built software personality modules for satellite families of NOAA, COSMOS etc.
3. Full resolution APT images stored as 800 x800x 256 level picture data file.
4. Magnification of 1:2, 1:1, 2:1, 4:1.
5. Pan and scroll available in all magnifications.
6. Max 256 colours displayed from palette of 16.7 million colour hues.
7. Full colour control editing facilities.
   -Linear and logarithmic bright ness and contrast control.
   -Colour palette selection.
   -Interactive shading over any range of levels.
   -Start and end colours for graduated shading.
   -Individual or multiple palettes can be saved for any one image.
8. 2D image contour available for both N/S and E/W slices with interactive interrogation of image data values at any point along the slice.
9. 3D image display mode (SAR images from appropriate satellites).
10. Data file editing and overlay drawing permitted.
11. Animation mode available comprising 16 high quality animation frames.
12. 3 modes of animation (continuous run, run with n delay, or single shot).
13. Animation speed control including single step.
14. Animation frame library with full frame editing procedures.
15. Full control over selection of area and magnification of individual frames.
16. Automatic or manual production of animated sequences.
17. Text editor for creation of notes about images.
18. Automatic message loading available.
19. Utilities for image printing, image inversions, print, file creation etc.
20. Timetable support for geostationary satellites.
21. Keplerian prediction procedures for polar orbits.
22. Graphical display of polar orbital sub satellite points.

A single APT image or 16 animation frames is available as standard provided the system has 1 MB of FREE RAM. 2 images or 1 1800 x 1600 image (orbitals) are automatically available in systems with 2 MB of FREE RAM. This amount of free ram also permits a maximum of 32 animation frames.

Complete systems only available from Newcastle Computer Services Ltd. Belville House, Ponteland, Newcastle upon Tyne NE20 9BD

Interesting People

One of the most interesting people to talk to at the show was **Janet Beat** from the Glasgow Academy of Music and Drama. Janet was demonstrating her expertise with Intelligent Music's Jam Factory and a Yamaha DX7 synthesizer.

Janet is well known for her interest in combining live performance with taped electronic music realised using Jam Factory, 'M' and Sound Designer on an Apple Macintosh Plus.

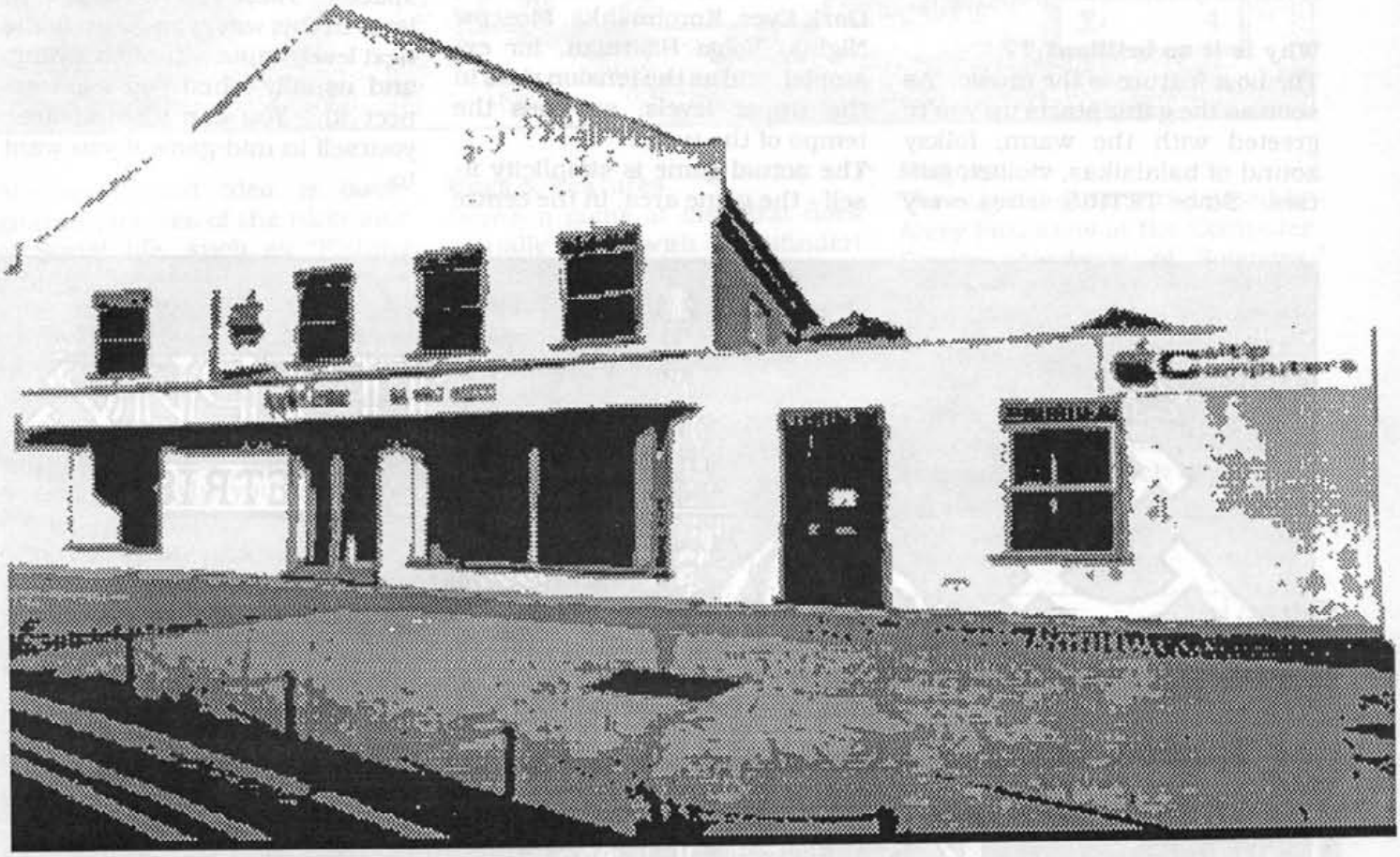
One of her works, "A Vision of the Unseen," is to be performed during a one-day festival of music featuring electronics and improvisation to be held on 19th February, 1989 at Merton Schools Music Centre, Chaucer Buildings, Canterbury Road, Morden, Surrey. There will also be free demonstrations and a workshop. Tickets for the concert are £2.50/£1.50.

Craig Whitehead was at the show representing the Geography Department of the London School of Economics.

Craig is an expert in using the Macintosh for both low-cost map production and publication quality cartography.

Interesting things to do in Kidderminster Part 1.
Go to the AppleCentre and buy some Apples.

Interesting things to do in Kidderminster Part 2.
Go to the AppleCentre and buy some more Apples.



Celtip Computers : AppleCentre

Lower Mill Street, Kidderminster, Worcs., DY10 2JG Telephone (0562) 822222

(Mind you! Have you ever been to Stourport?)

Tetris Review

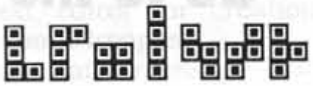
Ceri Fisher looks at one of his favourite Macintosh games.

This is it ! This is the last word in MacGames ! This game will charm you, amuse, entertain, and annoy you. It will take over your MacTime, probably your office, possibly the Whole Company, and maybe even the country, if not the world. This game will become a classic, Comrade, played and loved for years to come.

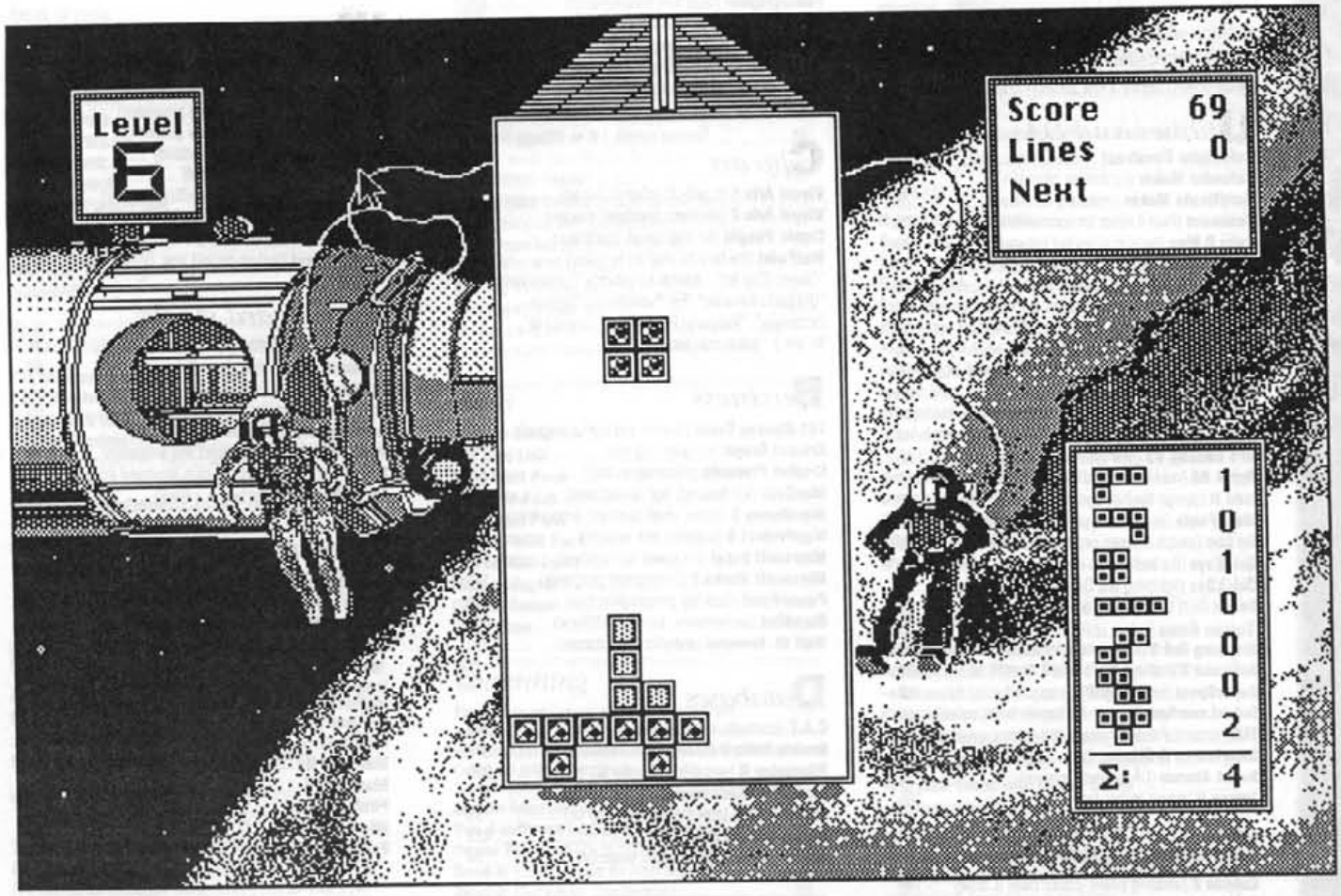
Why is it so brilliant ??

The best feature is the music. As soon as the game starts up you're greeted with the warm, folksy sound of balalaikas, violins, guitars. Since TETRIS seizes every available clock cycle to serenade you, everything else grinds to a standstill - it takes forever to summon the Control Panel to turn the volume up, (you can see the Mac drawing every line & button !). Each of the ten levels of play has its own tune - they all seem somehow familiar, (although the names of the 'tune files' don't - Dark Eyes, Korobushka, Moscow Nights, Volga Boatman, for example), and as the tension rises in the upper levels, so does the tempo of the tune !

The actual game is simplicity itself - the game area, in the centre of the picture (** pic file: "level 6 (Pic)" **), initially blank, fills up as shapes, like those below :-



(all made of 4 squares - (tetra ... gettit ?)) descend one at a time from the top at a speed which depends on the level of play - 8 seconds for level 5, less than 4 for level 9 ! Using the number pad, (not the mouse), you merely have to steer the shape into a suitable gap so that the area doesn't fill up so fast. You can also rotate it 90° as well - as many times as you want to. If you happen to combine the shapes so that there are no gaps across one or more 'lines' of the play area, those lines are removed which gives you extra space ! After you've cleared 10 lines in this way, you go up to the next level, (quite without warning, and usually when you least expect it). You can also advance yourself in mid-game if you want to.



Another quaint idea is background pictures of the nicer side of Soviet life, such as "Fishing Village", (level 3), and "Morning Ride near Yakutsk", (level 4). Unlike the tunes, these don't relate to the game so much, unless you're late for the train at "Komsomoloskaya Metro Centre", (level 7, with a very fast Cossack-style dance), or maybe you're in tournament mode at level 8, ("Soviet WIngs vs Team USA") !

A stroke of pure genius is to supply the bare game as a DA (**pic: "the DA (pic)" **)- with all the features that matter, but only a picture of Soyuz liftoff and no music, ("Shame" !). So there really is no getting away from it once you're hooked. The DA has an "About ..." item which declares that it is not Share or FreeWare and hints at the wondrous featurefullity of the full game.

It's a peaceful game, folks ! Buy it for your children, there's not a drop of actual or implied violence in it. And it's far from 'mindless', in fact I think it works the neurons rather hard ... !

Bugs & Features

Here's a game at last that does actually work with Multifinder! Apparently needing all of 444K, although I didn't try winding it down.

You can use all your DA's ! So this review was written to the accompaniment of the Vulgar Boatmen, or whoever they are, plinking and plunking away behind "Acta".

the rolled Citröen button on the level-choice screen ensures fair play for a two-person game by dropping the shapes for the next player in exactly the same order ! And a "Tournament Mode" allows up to six people to enter their names on a Score Board, so that TETRIS will indicate when they should take their turn. You can set a time-limit for each player, and choose what level the tournament starts at. At the end, TETRIS gives the results in rank order - no arguments !

I discovered no Bugs - not one !

History

The original game was devised by Alexy Pazhitnov at the Computer Centre, Academy of Sciences, Moscow, and the original programmer was Vadim Gerasimov at Moscow University. Folks, this game is a product of glasnost !

This Macintosh version was programmed by Roland Gustafsson at Sphere Inc, (which was probably quite some exercise in perestroika !).

info

Product : TETRIS
Publisher : Spectrum Holobyte
Available from : MacLine
Wren House
Sutton Court Road
Sutton, Surrey, SM1 4TL
Price : £24.00

Value :
Performance :
Documentation :

MacLine

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MacLine

ImageWriter LQ

The Technical Reference Manual for the LQ reviewed by Geoff Wood.

Those who have been involved with Apple computers since the early days will recall that when you bought your computer, the manuals contained a mass of technical data in addition to the operating instructions. When new models emerged, the manuals gave less technical data, perhaps to avoid frightening the novices. Experienced users now have to pay extra to buy information that used to come free with the appliance

When I bought my ImageWriter I, the two manuals contained all the information I needed. When I traded in this printer for an ImageWriter II, I found that the manual contained less technical data but I managed to sort out the few problems that occurred.

When I traded up to an ImageWriter LQ (the poor man's LaserWriter) again I found insufficient data in the Owner's Guide. For instance, it doesn't describe the software switches. With Apple Writer or AppleWorks on an Apple II, you may have problems if you want to insert Escape codes. So when Irene Flaxman asked me to review the LQ Technical Reference Manual, I jumped at the chance.

It's a hardback of 264 pages (with a tear-out Quick Reference Card of 8 pages) and it's published by Addison-Wesley. In the USA it's priced at $22.95 but the lowest price in Britain is £21.95 post free from Apple 2000.

There are ten chapters and seven appendices plus the usual glossary and a good index. Half of the contents are in the Owner's Guide but it's the other half that really matters. By the time I had read it all, I had a much better understanding of how the LQ works.

Chapter 1 describes the main features of the LQ and explains how characters and graphics are printed. The LQ has 27 wires compared to 9 wires on the ImageWriter II but only 24 are used at a time because data is sent in 8-bit bytes, so the number of wires used must be a multiple of 8. Thus the internal font letter b uses wires 1-24 whereas the letter p uses wires 4-27.

Chapter 2 deals with sending commands to the LQ through control codes and Escape sequences. It describes how to configure packaged programs and it includes a step by step explanation of using a colour ribbon with AppleWorks to highlight words in red.

Chapter 3 describes the use of the DIP switches. Some of this information is in Appendix B of the Owner's Guide but there's more detail in this chapter including instructions on switches 3-6 to 3-8 to adjust the vertical alignment of dots.

Chapter 4 outlines the software switches for controlling the language character set, line feed, carriage return, slashed zeros, ribbon sensor and perforation skip.

Chapter 5 describes the codes for page formatting and paper handling.

Chapter 6 covers the characters sets (three print qualities and eight language sets) and character features (pitch, height, underlining and bold). It includes a useful diagram showing which of the 27 wires are used for half-height, subscript and superscript.

Chapter 7 deals with graphics and colour printing. Using the information in this chapter, the LQ can achieve incredible effects, given plenty of time and patience.

Chapter 8 covers miscellaneous commands such as character repetition, cancel the current line, internal font ID, self ID, software reset and colour/black ribbon sensor.

Chapter 9 outlines the three hardware options (cut sheet feeder, LocalTalk card and memory expansion).

Chapter 10 describes mechanical features such as paper feed, ribbon movement and the print head. (The LQ offers tractor pull as well as tractor push and friction feed.)

I had hoped that the manual would help to explain why my printer worked all right with a colour ribbon but used only the top part of a black ribbon. (Black ribbons have a tab which is detected by a microswitch in the printer; colour ribbons have no tab.)

The manual says that when a black ribbon is installed, the printer moves the ribbon up or down periodically to even out the wear of the ribbon but it does not say how often it is supposed to move.

When I visited the MacUser show I asked Apple. Nobody there knew the answer but they said they would let me know. Such is my experience of previously unfulfilled promises that I was astounded to receive a telephone call three days later to say that the black ribbon should shift vertically after printing each page. (The new regime at Apple seems to have realised that customers need answers to their problems.)

I tested the ribbon shift and found that it worked all right with a colour ribbon but not with a black ribbon. Then I found that the tab on the black ribbon was touching the microswitch but not depressing it. I adjusted the switch and the ribbon shift worked all right.

Be warned that if you use an LQ to print mainly single page documents, it will use mainly the top quarter of the ribbon. (One answer is to give the ribbon a half twist and wind it through by hand, thus bringing the bottom edge to the top. Ribbons for the LQ cost much more than those for the ImageWriter II so it's worth the trouble.)

The eight appendices occupy 84

pages.

Appendix A gives a complete listing of all the LQ printer commands and DIP switch settings.

Appendix B lists all the ASCII codes, both low and high.

Appendix C uses 36 pages to explain how to send data to the LQ from programs in Applesoft Basic, Pascal, 6502 assembly language, 65816 assembly language, Macintosh Basic and Macintosh Pascal. It also explains how to use the Macintosh and Apple IIGS print managers.

Appendix D deals with Macintosh fonts. These are displayed on the screen with 72 dots per inch but the LQ prints them at 216 dots per inch, using a font in the System File that is three times the size of the screen font. (If the Font Manager can't find a font three times the size of the screen font, it uses an algorithm to find an appropriate font, either 6 times the size, half the size, or the next larger or smaller size. It then scales this font to three times the screen size but the result will not be as good as with the correct printer font size.)

Appendix E compares the ImageWriter LQ and ImageWriter II printers. Apart from such obvious differences as carriage width and number of print wires, there are many detailed differences in features and commands.

It's comforting to know that the LQ has a mean time between failures of 6000 power-on hours compared with 4000 for the ImageWriter II and that the print head life is 200 million characters rather than 150.

Appendix F lists the printer specifications and Appendix G describes the interface specifications including the optional cards.

If you want to get the best out of an LQ printer, this manual is essential.

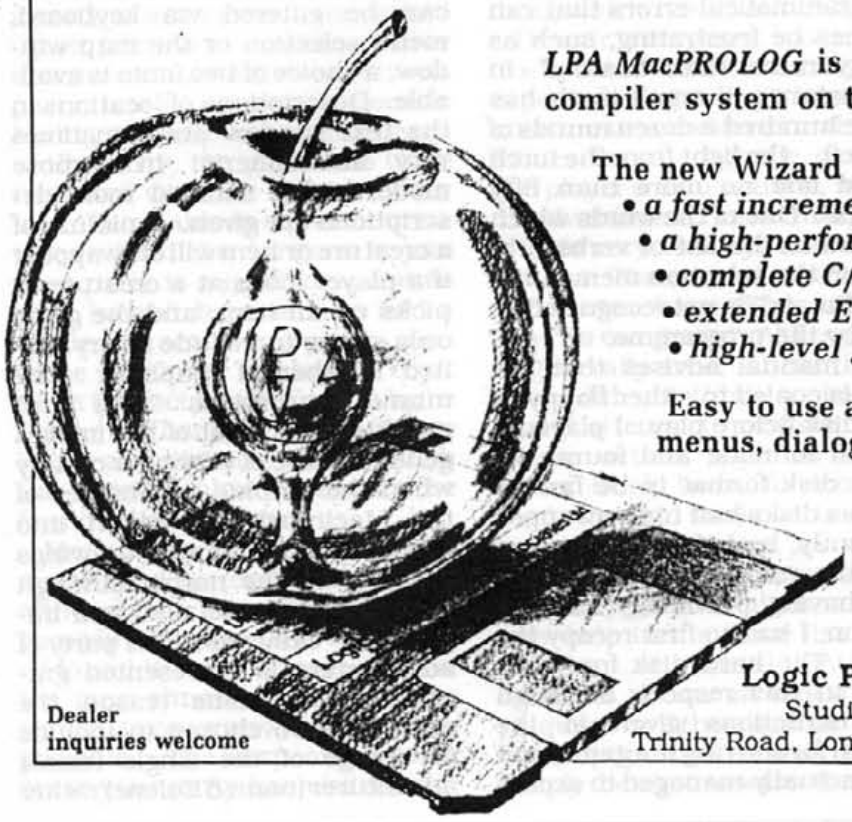
Apple should be ashamed that customers who have spent £1000 on a printer have to spend another £22 to buy this manual.

Of course, some customers may never need this manual, but perhaps Apple could include a postcard with the printer so that purchasers could get the reference manual free or for a nominal sum to cover postage and packing. At the very least, the Quick Reference card should be included with the Owner's Guide.

info

Product : ImageWriter LQ Technical Reference Manual
Publisher : Addison-Wesley
Available from : Bookshops, Apple Dealers
Price : £ 22.00
Value : ●●●
Performance :
Documentation : ●●●●●

Mac made intelligent



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Quarterstaff

An adventure game simulation reviewed by Angela Wright.

"Quarterstaff", published by Simulated Environment Systems, is an adventure game in which a party of adventurers explore a dungeon in search of treasure. There are a great many such games on the market already, but, like many others, "Quarterstaff" claims to be different. The difference lies, the manual states, in that "Quarterstaff" is not merely a game but an adventure game simulation. What this apparently means is that both the environment and the creatures within it react to the courses of action you take. Monsters are not automatically programmed to attack you regardless, and it is possible to befriend some creatures to the extent that they join your party. There are also no puzzles of the type normally featured in adventure games ("...either nothing happens, you die, or you solve the problem") - the aim is to provide the player, whether novice or experienced, with as realistic a setting as possible.

"Quarterstaff" is set in the Tree Druid colony of Threa. The plot of the game seems to be simply that the party of adventurers explores the colony (dungeon), collecting treasure on the way. There are no princesses to rescue, and nothing is at stake except the lives of the adventurers. This might sound dull to those already experienced in adventure game-playing, but there are many variations in location and the types of creature encountered, and plenty of magic and surprise to keep most players happy.

Whilst reading the manual prior to playing the game, I came across the following passage in the Foreword:

"Warning: Simulated Environment Systems is not responsible for any effects, mental or physical which may result from playing this game. The degree of realism may be too graphic for some players. This could cause some players to lose their ability to distinguish between fantasy and reality."

This gave me the impression that the authors had put a great deal of effort into perfecting the game in order to heighten the sense of realism for the player. Looking at the adjacent page, however, I was greeted instantly with a misspelled "Quarterstaff". This appears in the top margin of every even-numbered page, leading me to wonder whether this careless slip would be repeated in the game itself. Unfortunately it was discovered that the game does contain many misspellings and grammatical errors that can at times be frustrating, such as "healty" rather than "healthy" - in one instance, a small torch has "...one hundred a dozen rounds of light left... the light from the torch should last no more than fifty rounds". One of the words which appears in the list of verbs provided in the selection menus, the verb "Rotate", is not recognised as valid by the programme.

The manual advises that the game is copied to either floppy or hard disk before play. I played it in both formats, and found the floppy disk format to be far too slow, as disks had to be swapped frequently, and if wishing to restart the game at the beginning after having previously saved a position, I had to first recopy the disks. The hard disk format is faster in this respect, although the instructions given in the manual for starting the game, and how I actually managed to access it, differ greatly - I had to open a series of files in a particular order before the game would start, and I was unable to access a saved game without first starting the game at the beginning, then opening the file corresponding to the saved game.

(I must stress at this point that I played the game on a Macintosh II, which may have caused me problems that would not have been encountered on another machine of the series, such as the loading problems described above. Not being very knowledgeable of the differences between the machines, I am unable to say for certain whether this is the case. It is not stated in the manual or game whether the game was written for a specific machine in the Macintosh series, or for the series in general.)

The first time the game is run, it requests that the user input his or her name, which is then saved onto disk. Although it seems very nice to be able to personalise your game, it does not serve any purpose, and your name will not appear onscreen unless "About Quarterstaff" is selected from the menu.

The game screen consists of three windows; a text window, in which all descriptions of actions and rooms appear, a map window and a picture window. All moves appear in the text window, and can be entered via keyboard, menu selection or the map window; a choice of two fonts is available. Descriptions of locations in the text window are sometimes very atmospheric; in verbose mode, highly detailed room descriptions are given. A picture of a creature or item will only appear if a player looks at a creature or picks up an item, and the game only seems to include a very limited number of graphics. The manual promises "real life" graphics, but most of the images generated are of very poor quality when the graphic capabilities of the Macintosh are taken into consideration - simple drawings seem to be the norm, although some are more detailed and impressive. Only one of the party of adventurers is represented graphically; for some reason the authors have chosen to include an image of the single female adventurer (named Eolene) rather

than her male colleagues (Bruno and Titus).

Another disappointment for me was that I could not generate my own characters and either create a party or add extra characters to those provided on disk. Three characters is a small number for a party, and it can rapidly become boring when, following the death of the party, the game has to be restarted with the same characters. Being able to convince creatures within the dungeon to join your party is a good idea, but as yet I haven't been able to add a single character to my party - even those which are not hostile don't seem to react to attempts to bribe them. Neither have I been able to locate any invisible items, which the manual also states can be found in the dungeon.

Mapping in the game is automatic, and generally very good, although the map window as the game first displays it is very small - I found it an advantage to have the map almost as large as the screen, to cover as wide an area as possible. The map only covers areas your party has visited, and marks your present position. It also only shows the level of dungeon you are currently in - should your party fall down a pit into another area, for instance, the map showing your previous progress disappears. The entrance to the Tree Druid colony is labeled "Level 1" - I have not yet discovered whether this refers to several structural levels within the dungeon, or whether the game itself has multiple levels.

The game boasts digitized sound - this is generally fairly good, but like the graphics, is limited in quantity to a few short bursts of drinking, chewing, doors opening, screaming, etc. Occasionally a voice will warn that one or more members of your party are hungry, thirsty or sleepy, although the voice seems very indistinct - I had to have the computer volume at its highest before I could understand what was being said to me. If, for some reason, you decide half-way through loading the game that you don't want to play at the moment, the voice appears again, saying something which I find unintelligible.

Despite the game having distinctly more variety than might be expected regarding locations, creatures encountered and possibilities for altering the game by the player's own actions, a great disadvantage is that actual gameplay is very clumsy, and can be tedious. The manual states: **"You will never hear 'You can't do that' in our game".** Although this is generally true, where the authors did not think a character would attempt to perform a particular action, such as looking under bunk beds, for example, the command to do so is simply ignored, and treated as a Pass move. Because the manual gives only very general hints, and the only help in the game itself is in the form of general hints contained in poems on tapestries or plaques, or other similar items, some options are missed through simply being unaware that they existed. I wasted over one hundred rounds trying to open one secret door and failing, left it and jumped into a fountain in the next room (Why? Because I felt like it!), went back and opened the secret door on the first attempt. This worked every time, although I'm not sure whether it was a coincidence. Every time I tried to open the door and failed, it was again ignored by the programme, although I already knew a secret door existed there. In desperation I had already tried to put the loose brick which triggered the door in the backpack of one of my characters, take it away and drop it in another location. I was allowed to do this, and when my character returned to the secret door, the brick was still there.

It is also stated in the manual that characters attempting to enter or retrieve items from locations which are potentially harmful would be injured or killed, as they would in real life - yet one of my characters was able to retrieve a red hot poker from a fire several times without being hurt. The lack of hints also created problems in the most basic moves - I have never been able to work out how a bow and arrows carried by one of the adventurers is supposed to be used. It also seems to be impossible for an adventurer to carry more than one item in his or her hands - any surplus items are stowed in a backpack or dropped. This can be annoying if an adventurer has stowed a torch that enabled the party to see what they were doing. Often, I typed in a command for an adventurer to utilise something they were holding in their hand, only to be told that they were not carrying such an item, despite its presence in their inventory.

Despite the graphic image of the adventurer Eolene showing her as very clearly female, in the game she is often referred to in the masculine, which can be confusing (not least for Eolene, no doubt).

There is no option within the game to withdraw or undo moves, which can be extremely frustrating if a character who is doing very well suddenly commits suicide because of a slip of the mouse button. If such a mistake is made, the only option is to revert to a saved position - it would be far

better if commands which were likely to result in a great alteration of the situation also allowed the player to cancel them, thus avoiding serious mistakes of the type described above. Often, selection of items from menus also triggers a Return, and the end of the command, whether or not the command has actually been completed. The only way to avoid this is to either enter all moves via the keyboard, or only select menu items when you also wish to end the command. A Macro facility is included whereby certain complete commands can be entered into the memory, to be triggered by menu selection or an option/ numeric selection on the keyboard.

The party usually consists of two followers and a leader, although it can split at any time into individual adventurers or a smaller group. Every time the entire party falls down a hole, or sleeps, it splits automatically, which can be annoying as every group (or individual adventurer if the group has been previously split) has a separate text window, and must enter moves separately. When in a single group, there is an option to "toggle" the actions of the followers on or off, so only the leader needs to enter commands, and follower's moves will be entered as a Pass - this can be useful outside of battle, as it speeds up play and reduces tedium. Tedium often arises when moves have to be repeated several times.

All creatures within the dungeon are controlled by the computer, which decides their moves at the same time as the moves of the adventurers are selected. In effect, this means the player has a computer opponent; neither side can cheat by knowing the other's moves in advance. Whilst it is possible to persuade creatures to join your party, it is also possible to command members of your party to join with the enemy, although such characters then are out of your control, and their moves are controlled by the computer. If all adventurers join the other side, the party eventually expires and the game is over.

It is advisable that the party carries as many torches and lamps as possible, to avoid having to travel in the dark. A torch can be used as a weapon, and is also vital in successful mapping. When the party travels in darkness, the map cannot be viewed, and rooms traveled through cannot be mapped. However, the party is still aware of items in a room, and can attack creatures or get items, but they cannot examine anything, so they cannot see if a creature is carrying something of value to them, for instance.

It also helps if adventurers eat and drink before sleeping (all necessary to ensure health of characters), as not doing so can result in an adventurer being awakened by hunger or thirst, and losing health as a result.

Although the manual states clearly that there is always a way round a problem if some logical thought is given, I have nonetheless found characters in situations where they were completely stuck, which would suggest to me that the problem is how to avoid these situations the next time I play the game. One such situation involves a series of mist-filled rooms in which the party are unable to orientate themselves, and regardless of the directions they choose, go round in circles until they expire.

The game is generally fairly serious, although the authors have inserted the odd Infocom-style spark of humour, e.g.:

"The LEATHER GLOVES are on BRUNO. If this world contained bikers, and if those bikers were to wear gloves, these would be the gloves of choice. But this world does not contain bikers. That's in our second adventure, Buckaroo Bonzai and the Female Bikers from the N-Dimensional Continuum."

One of the most frustrating problems I had was the game's refusal on many occasions to save games. Although I followed the instructions for copying the game onto the hard disk correctly, I found I could generally only save a game provided I had started the game at the beginning and used a "Save As" command to save the game to a previously-created empty folder. Attempts to save the game by any other means usually made the game crash. Normally, the player can either save a game manually or by using a "Smart Save" facility, which automatically saves the game position every 25 rounds.

In general, I found "Quarterstaff" to be extremely enjoyable once I had got used to its faults. A great deal of patience is needed to play this game, and it is possible that many prospective players would lose patience with it before allowing it to unfold properly - it does take time to bypass earlier, more mediocre encounters. Some very good surprise elements are included, such as pits (which cannot be detected until they are triggered), and the fact that the adventurers do not have to follow a specific route or course of action helps create more variety, making the game far more interesting.

"Quarterstaff" would have been improved vastly, however, if the authors had spent more time "ironing out" faults of the type which slow the game considerably, such as the lack of an "Undo" facility to avoid wasting moves. Faults such as this will not endear the game to novices, and may also deter more experienced/ less patient users from discovering its better elements.

info

Product : Quarterstaff
Publisher : Simulated Environ -ment Systems
Performance :
Documentation :

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Press Release

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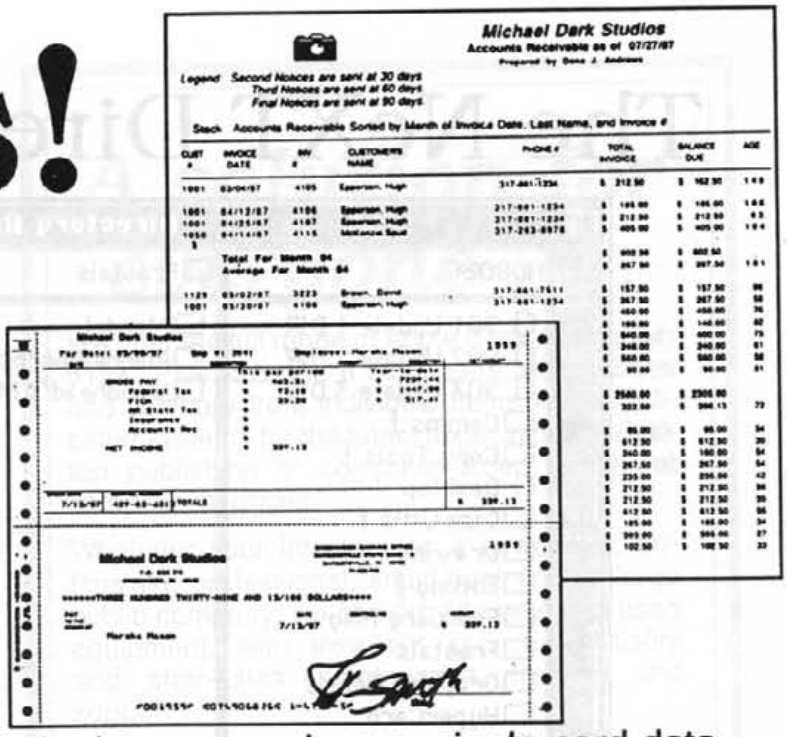

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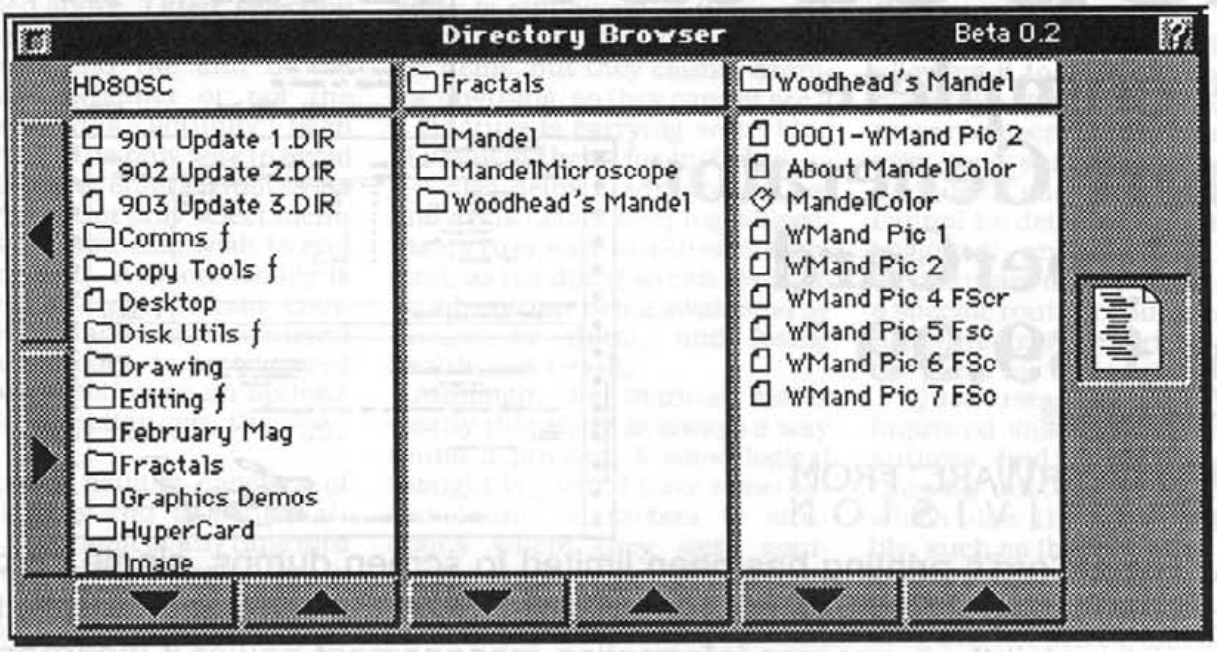
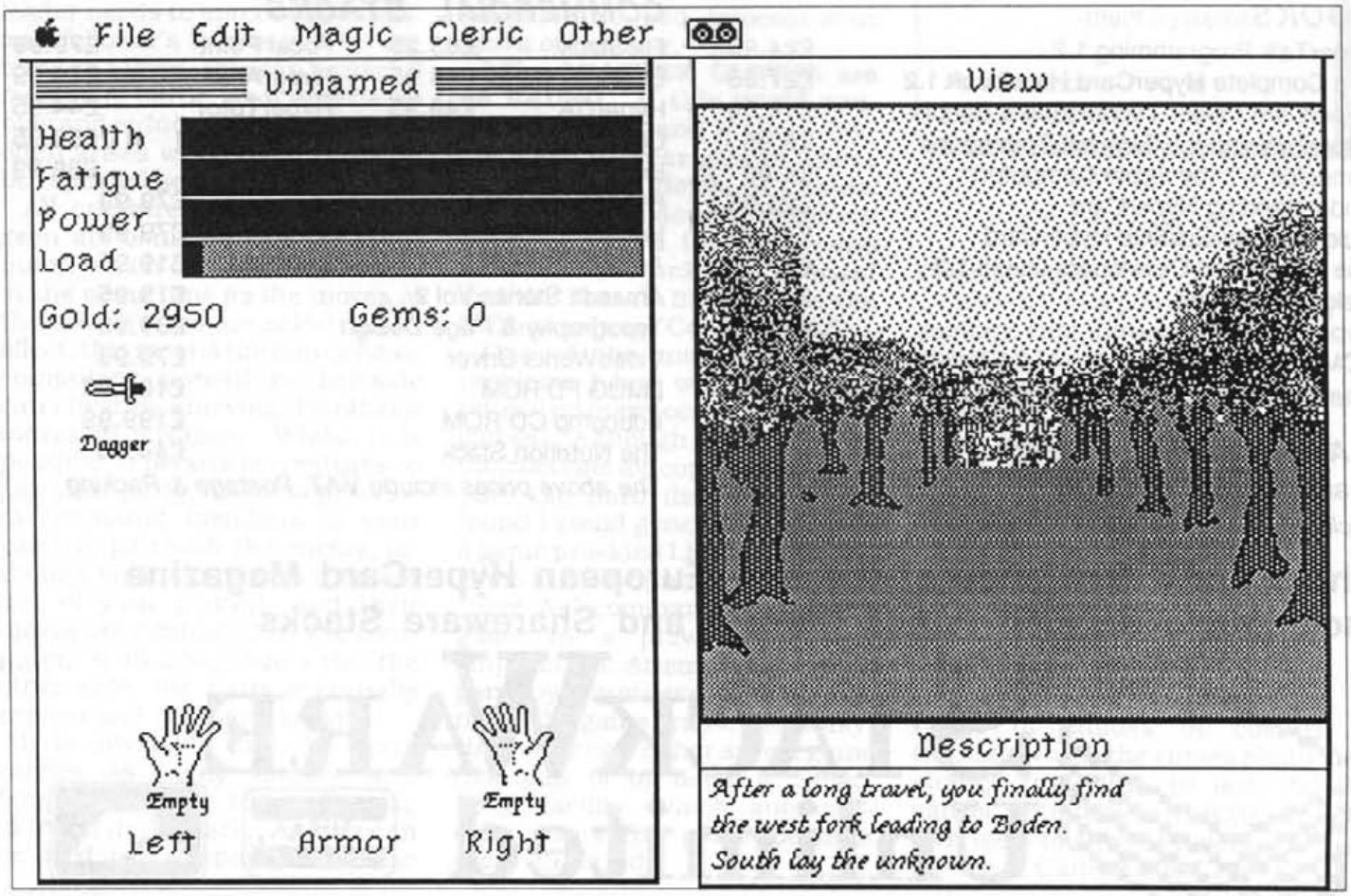
The NeXT Directory Browser

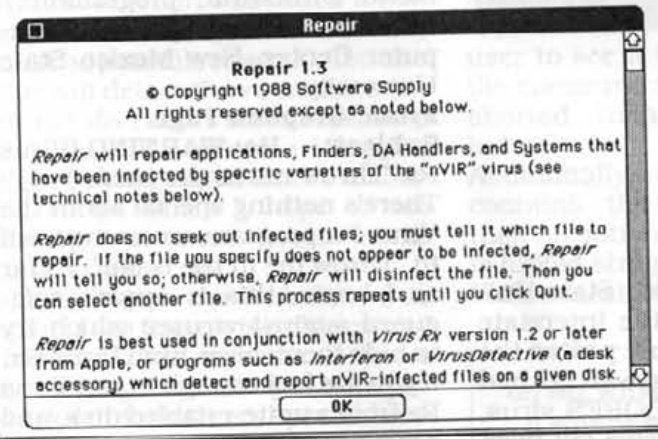


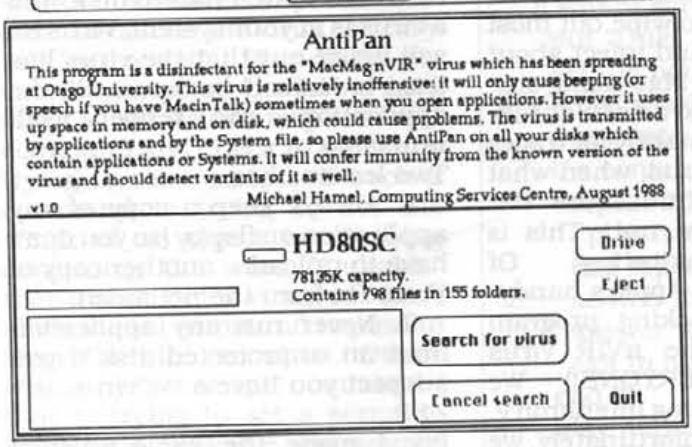
The screen dump above shows the NeXT Directory Browser as implemented on the Macintosh. The file was uploaded to the BMUG Bulletin Board Sysytem by the developer and passed to other boards because others might enjoy seeing what the NeXT Browser would like like if implemented on the Mac. The Macintosh implementation is available on Library Disk 901 Update 1.

Theldrow- available on Disk 904 Update 4



Anti-Virus Programs on MacLibrary Disk 902 Update 2





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File Edit Options

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WARNING: Many changes and improvements. READ THE DOCUMENTATION!

If Interferon helps you out, please consider making a donation to "The Vision Fund". This is a fund that gets all my shareware donations, and we are saving up the money to buy specia hardware for a visually impaired computerist. Send your huge cheques to:

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Interferon currently locates and destroys the following viral infections
(001) 04/06/88 "SCORES" Virus (now gets Desktop_ file)
(002) 04/07/88 "nVIR" Virus
(003) 04/07/88 "SNEAK" Virus: Common system folder files turned into INIT's
(101) 04/07/88 WARNING: VULT or ERIC resources or signature (referenced by SCORES vi
(201) 04/11/88 ANOMALY: Code Resource ID#0 jumps to last Code resource (with gap)
(202) 04/11/88 ANOMALY: Code Resource ID#0 jumps to last Code resource (no gap)
(203) 04/20/88 ANOMALY: CODE Resource found in non-APPL file
(204) 04/20/88 ANOMALY: INIT Resource found in non-INIT, RDEV or ZSYS file
(205) 04/20/88 ANOMALY: cdev Resource found in non-cdev or ZSYS file

These pictures are screen dumps taken from three of the anti-virus programs which can be found on Disk 902 Update 2.

More details of the programs on this disk are given on the MacLibrary pages 76 and 77.

Some of the programs are able to counteract only one specific virus, but others are able to warn if any virus attempts to alter system files on your hard disk.

It is sensible to read the instructions before using any of the anti-virus programs.

Network News

The latest news, tips and gossip from the networks.

From AUC

From: 67ESCANDON@cua .earn
Subject: WARNING
I think that this could be interesting... this message was posted in the VIRUS-L list.
From: David D. Grisham
To: "Manuel J. Escandon"
Subj: A new one on me.
Hi group,
One of our student consultants mailed this to me. Note: This happened in a Mac Lab, with 512s and SEs. I don't have a copy of this yet.
HAS ANYONE HEARD OF THIS TROJAN OR VIRUS?
This afternoon, I found that we have what I think is some form of mutated virus. IT CHANGED MY VIRUS RX PROGRAM TO A GENERIC DOCUMENT ENTITL -ED "PLEASE THROW ME IN THE TRASH". This is no joke. It did it right in front of my eyes.
I got a message box, which stated "There is a penetration attempt on VirusRx, if the disc is unlocked, it will be changed to "Please throw me in the trash"".
This sounded like so much BS to me, but when I looked, IT WAS NO JOKE! I don't have any time to devote to isolation because of comps this Wed. Joseph has the altered VirusRx (now a 44k generic document). Let me know your thoughts on this subject.
Dave Grisham
Senior Staff Consultant/Virus Security, Information Resource Center, Computer & Information Resources & Technology University of New Mexico Albuquerque, New Mexico 87131
From: dbirnbau@nmsu. edu
Subject: Viruses
Allow me to comment further on the virus problem:
ARRRRRGGGGHHHHHHHHH!!!!!
I work at New Mexico State University, just down the Interstate from UNM, which just posted the virus problem. I have so far had trouble with the SCORES virus, which managed to wipe out most of our lab disks and infect about 20% of the entire Mac-using student body. We have been checking our disks constantly for traces of the SCORES virus, when what should happen but.....the **** nVIR virus shows up! This is getting REAL irritating! Of course, Virus Rx, Apple's handy-dandy virus checking program totally misses the nVIR virus (NOTE THIS EVERYONE!) We found the virus using Interferon v. 3.0, now v. 3.1. Unfortunately, we have no clean way to kill the virus dead, other then a lot of finiking with ResEdit (not clean, but effective). Interferon simply deletes the file...clean, effective, but bad for lab PR when you start wiping out peoples applications. And, we weren't looking for the nVIR when we were spot checking, so now we have to start the whole quarentine process over from the beginning, with Interferon instead of KillScores.
The point of all this is that I AM SICK AND TIRED OF THESE VIRUSES!! I am just a lowly student (in search of revenge) but this means I have classes and other things to worry about, and I don't need to be putting in 40 hour work weeks telling everyone how they can kill a virus, organizing the effort, recopying lab disks, etc.
And now I find out that UNM, who is having the same kind of problems we are, has uncovered another potential nasty. With complete sympathy to UNM, I do hope that none of your disks make it down this far, or my hands will be full once again. If anyone out there who will ever read this message has written a virus, please let me know SO I CAN FIND YOU AND KILL YOU!!!
Ahem...please excuse the violence. It's been a long year.
David Birnbaum, programmer/consultant, Small Systems, Computer Center, New Mexico State University
From: Stephen Page
Subject: Re: WARNING (Virus Rx "Throw me in the trash")
There's nothing special about the Virus Rx program renaming itself to "Throw me in the trash". As far as I know, this is Apple's safeguard against viruses which try to hide themselves from Virus Rx. If you are fool enough to run Virus Rx from a write-enabled disk, and a virus is in your system, Virus Rx will figure out that the virus has tried to "infect" (tacky word!) the application, and render itself unusable.
Two lessons here:

1. Always keep a copy of any application on floppy (so you don't have to upload another copy of Virus Rx from the net again;
2. Never run any application from an unprotected disk if you suspect you have a virus.

- SP
PS: I made the same mistake once, hence the ability to pronounce wisely...
From: Sak Wathanasin
Subject: Dukakis virus???
At the risk of starting another wave of paranoia, I pass on something
that was sent to me.
Regards
Sak Wathanasin
— —
HyperCard: "Dukakis Virus"
Just a few weeks ago a stack was uploaded to CompuServe Information System which carried a virus written entirely in HyperCard. The uploader of this stack has since been banned from using the Macintosh area of CompuServe and may be banned from using CompuServe entirely.
The stack was downloaded by a handful of people, although it is quite possible that already these people have infected their own stacks and passed on copies of the infected stacks to others. This means the virus could possibly have infected hundreds of stacks in just a short space of time.
The virus is known as the

"Dukakis" virus since it aims to installed itself in every stack and present the message "Dukakis for President" whenever the stack is opened.
On first reading about this virus my first reaction was that if it was only written in HyperTalk then it must be possible to write a routine that will detect the virus attempting to infect other stacks and stop it doing so. I spent a sleepless night putting together the following script which I hope to see installed in most users "home card" stack script.
I haven't seen the Dukakis virus but as I see it there is only one way the virus could spread and that is by setting the script of other stacks to include its special handler. To do this the virus can only call "set script". By putting my vaccine script on the home card stack script we can trap the "set" command and check to see if it is trying to set a script. If such a command is trying to set the script of an object to anything containing the word "Dukakis" then it must be the virus, so I don't allow the set command to pass to HyperCard for execution. Otherwise, any "set script" command that is trying to set a script to something allowable will prompt the user whether or not they want it to procede.
This vaccine could save lots of stacks from becoming infected with both the "Dukakis" virus and anything similar that may come along.
You may either key the attached script into the "stack script" of your "home" card or download the file from AppleText and use cut and paste to install it.
Should you have any problems with the script then please contact me and I'll be interested to talk with you.
Ian Summerfield
AppleText "SYSOP": H e m e l
(0442) 230202 V21/22/23

— —

THIS SCRIPT SHOULD BE INSTALLED IN THE "HOME" STACK IN THE STACK SCRIPT.
Script to detect the spread of the "Duk-akis" virus (note: the hyphen in this word is placed there to stop the vaccine thinking these comments are the virus). It works by trapping the "set" command. I haven't seen "Duk-akis" but I should imagine it works by setting the scripts of various objects to whatever they were plus something like an "on openstack" handler. Well by trapping the "set" command we can then find out if we are setting a script and if we are then we can sort of work like "Vaccine" does, i.e. I prompt the user to see if they want to allow the command to continue. If it is aborted then all scripts are halted.
Additionally, if the new script contains the word "Duk-akis" then no option is given, the script is halted straight away.
You can test this script by making a new stack, then try keying the following examples into the message box:
"Set script of this stack to empty"
"Set script of this stack to field 1 — where field 1 has data in it"
"Set script of this stack to "Duk-akis" — take the hyphen out and try it!
Try it, I'll think you'll like it!

Ian Summerfield-
Technical Support Supervisor-
Apple Computer UK Ltd.

Ian Summerfield's HyperCard Script is given in full below.

```
on set what,what2
  if what="script" or what2="script" then
    put "Duk" & "akis" into duk
    get the params
    if last word of it="to" then put it & " empty" into it
    put it into s
    if s contains duk then
      repeat 10
        play harpsichord tempo 300 "a b c b a b c b"
      end repeat
      answer duk & " virus detected." with "Abort Scripts"
      answer "OK you're safe now! It didn't spread."
      exit to hypercard
    end if
    play harpsichord tempo 200 "e c e c e c e"
    answer "Warning: Script change requested" with "Show me"
    repeat
      answer s with "Allow" or "STOP!" or "Show more"
      if it is "Allow" then pass set
      else
        if it is "STOP!" then
          answer "All scripts aborted!"
          exit to HyperCard
        else
          put the userlevel into thesafe
          set userlevel to 5
          domenu "new field"
          get number of card fields
          set rect of card field it to 0,19,512,342
          set style of card field it to opaque
          put the params into card field it
          choose browse tool
          wait until not the mouseclick
          wait until the mouseclick
          choose field tool
          click at loc of card field it
          domenu "clear field"
          choose browse tool
          set userlevel to thesafe
        end if
      end if
    end repeat
```

From Infomac

From: "Jim Shaffer, Jr."
Subject: Possible new virus [forwarded message from Virus-L]
From: "Shawn V. Hernan"
Sender: Virus Discussion List
Hello,
Just yesterday we discovered 'nVIR' here, and now we have something I've never heard of. Does this look familiar to anyone: We used Virus Rx to check a program for the nVIR virus and found this:

Invisible files and INITs embedded in system files
@#$% FILE– – Bostb Be Evill-:

Warning: Files are too new. *
ZSYS MACS– – – – System-:

SUMMARY: Invisible Files & Questionable INITs: 1
*One or more questionable files were found. *
*These don't seem to be of immediate concern. *
*You may wish to check their resource forks. *
*Relax for now but run this program again later. *

The file 'Bostb Be Evill' has us somewhat concerned. Anyone know what this
might be?
Shawn Hernan Valentin University of Pittsburg

[Moderator's Note: I don't know what that file is, but I'd sure like to know too! As an aside, I haven't had much success getting Virus RX to even notice nVIR infections. Has anyone else had this problem? - Lance]

From: "Phillip J. Heil"
Subject: Detecting nVIR
I have found that the desk accessory Virus Detective is pretty effective for detecting the nVIR Virus. Other than that, the only other way is to peek into the resources to find nVIR.
If you would like more information on how to detect and vaccinate against nVIR
please let me know, and I will forward information from the local bboard here at CMU.
Phillip Heil

From: "Maj. Doug Hardie"
Subject: CMS Drives with virus
I recently purchased a CMS SD43 40 meg hard disk for my Mac. I like the drive real well. However, the utilities provided by CMS for the disk and the associated System contain the nVIR virus. I know they were on the floppy disk, but am not sure about the original versions on the hard disk. I ran the utilities off the floppy before I discovered the hard disk came with them already there.
After this wonderful discovery, a friend also bought one of those drives and found the same critter. The CMS utility program can be cleaned up and then works nicely.
Doug

From: J.A.HAYES
Subject: Recent infestation by nVIR
I posted this to my local Mac board, and perhaps there is some general interest in this kind of situation in info-mac land.
- - - - - - - - - - - - - - - -
We recently got infected by a virus of the nVIR persuasion, and upon checking departmental disks with Interferon (3.1), found that damn near all the disks in the entire department had been infected by the little booger. Most of the privately owned Macs around the department were infected, most with hard disks. At least two faculty members had their Macs at home infected as well....the moral is, viruses are real, and worrying about them is not, NOT paranoia.
I suggest the following for folks who run/use public Macs or Mac clusters:

1. Install Vaccine in ALL system folders to be used on the net. It ain't perfect, but it works pretty darn well.

2. Check your disks fairly frequently– it takes all of thirty seconds for me to check my 60M hard disk. It's worth the time for the peace of mind it provides. If you don't have some program to check for viruses, GET ONE.

3. Keep up with technology. READ the info-mac and usenet digests, which this board subscribes to. It is there that new viruses will first be reported, and it is there that programs to combat those viruses will be posted.
I used to be vaguely embarassed by my concern about viruses, like it would never come to my neighborhood. No more. A virus may endanger a serious investment, about 5K in my case (on a graduate student's salary, yet!), and more for most Mac users, in equipment and software. I can't risk that kind of money. Can you?
Josh Hayes, graduate student Zoology Department University of Texas, Austin
Austin, TX 78712

From: Christian Falk
>From: NORUNIT
Subject: nVIR found in Stella!
Today, I received an upgrade disk from High Performance Systems INC, containing
STELLA 2.0 for Academe. Both STELLA and System files contained the nVIR-resources.I have advised the company.
Please forward this note !

From: John Norstad
Subject: Viral Resources
Someone asked for a list of known Mac viruses and their resource identifications, so that users of Virus Detective could update the list of suspicious resources, and so that users of ResEdit would know what to look for.
Here's what I know about Scores and two strains of nVIR:
Scores infected system files:

Type	ID	Size	Files
INIT	6	772	System, Note Pad File, Scrapbook File
INIT	10	1020	System, Desktop, Scores
INIT	17	480	System, Scrapbook File
atpl	128	2410	System, Desktop, Scores
DATA	-4001	7026	System, Desktop, Scores

Scores infected application:

Type	ID	Size
CODE	n+1	7026

where n = the id of the first unused CODE resource.
For example:-

if the application has CODE resources numbered 0,1,2,3,4,5, then

n=6 and the viral CODE resource is numbered n+1=7.

nVIR infected System file:

Type	ID	Size A	Size B
INIT	32	366	416
nVIR	0	2	2
nVIR	1	378	428
nVIR	4	372	422
nVIR	5	8	8
nVIR	6	868	66
nVIR	7	1562	2106

nVIR infected application:

Type	ID	Size A	Size B
CODE	256	372	422
nVIR	1	378	428
nVIR	2	8	8
nVIR	3	366	416
nVIR	6	868	66
nVIR	7	1562	2106

Unlike Scores, nVIR does not infect any files in the system folder other than the System file itself. The two columns "A" and "B" above
are the sizes for what I call "nVIR strain A" and "nVIR strain B".
Hope this helps.
John Norstad Academic Computing and Network Services Northwestern University

From Usenet

From: Chris Borton
Subject: Re: nVIR virus found in "Kill Virus"
In article
<2223@sunset.MATH.UCLA.EDU> hgw@math.ucla.edu (Harold Wong) writes:

>In article <garbage #> ll12+@andrew.cmu.edu (Laura Ann Lemay) writes:
>>Kill Virus is equipped with a foil for the nVIR virus, which will keep it from getting infected. However, since the resource is called "nVIR", it trips up Interferon and other such programs.
Kill virus is currently the best program for getting rid of nVIR. THE PROGRAM IS ***NOT*** infected!!!!<<

Does KillVirus protect all applications or just those who were infected? With applications (pd and others) going through and being copied onto my drive how will I know if the real (the bad one) nVIR shows up? It might start infecting other applications that did not get KillVirus protection.

It seems to me that KillVirus will add confusion to this virus problem<
There seems to be plenty of confusion around about nVIR, which is understandable. I'll summarize this as I know it; please add corrections if necessary (but only if you REALLY know—discuss it otherwise) and spread this information around as widely as possible to avoid this confusion.

nVIR has a built-in inhibitor, probably so that the originator wouldn't infect his whole system as well. The virus checks for the existence of the resource 'nVIR 10' in the System file, and if it's there then it doesn't infect anything.
The KillVirus INIT from Matthias Urlichs is an INIT that installs this prohibitor resource into the System file.
[Programmer note: given the confusion this now causes, it might have been more appropriate to build that resource on the fly]. Hence, with the KillVirus INIT your system will be immune to attacks of nVIR and further spreading of nVIR.
To my knowledge, KillVirus does NOT do anything to applications at all. Hence, if you have an infected application, it will be benign on your KillVirus- protected system, but if you give it to your friend who is not protected, then he will become infected.

The best solution I know of:

1) boot from locked positively-healthy system

2) Run "Vaccination" on ALL programs you have. This will remove the virus if it exists, preventing further spread.

3) Replace all Systems with a known good System. If this is too painful, it can be done with ResEdit hacking, but you'd better know what you're doing. Just remove all 7 nVIR resources and INIT 32.

4) Replace the Finder and DA Handler, as the original version of Vaccination did not recognize these and they infect.

5) Keep KillVirus, VirusWarningINIT, and/or Vaccine in your system folder. The differences:

KillVirus: defends attacks, will not allow spread. Installs benign nVIR 10 resource in System file. Does not, I believe, alert you when an attack has occurred.

VirusWarningINIT: emits a series of beeps when an attack (attempt at infection) has occurred. Does NOT prevent the infection, but you will know about it and hence can immediately kill it.

Vaccine: will cause system bomb when nVIR attacks. This is because it is trying to use a dialog/menubar at a time when that isn't allowed. Thus, if you have a consistent bomb under MultiFinder with a program you know works, immediately check it for nVIR.
I hope this clarifies a few things. There are plenty of items that might have been done much more clearly (the naming of these things, for one) but they usually originate in a crisis under duress and time pressure. The best prevention overall is user education — a little bit can go a long way.
[Personal note: unfortunately the media could use some as well in order to prevent wild rumors, spreading false information and blind fear.]
[[Oh a sample?
CNN during the InterNet Worm crisis: 4:12 reporter: "...but the virus apparently does not do any damage to data."
4:25 anchorperson: "stay tuned, in 10 minutes another report on the data-devouring virus attacking computers all over the country."]]
Chris Borton Rotary Scholar, University of Amsterdam CS

Info-Mac digests consist of submissions by individuals on the academic computer networks. Submission and distribution of these digests is by network, moderated by volunteers at Stanford University.
Usenet is a loosely-coupled network of co-operating academic and commercial computer systems. It is a non-profit network whose primary aim is the sharing of technical information and the spreading of research results.
Delphi is a commercial timesharing and bulletin board system. The Delphi Digests are made available thanks to Jeffrey Shulman of Rutgers University.

Maze Survival

Angela Wright reviews Maze Survival by Blue Whale Gameworks

Maze Survival by Blue Whale Gameworks runs on all Macintoshes and is distributed by Olduvai Software Inc.

The front of the packaging for Maze Survival depicts a colourful robotic bug towering over a complicated maze apparently filled with bug eggs. As is often (almost always) the case, the game itself produces distinctly different images from that shown on the cover.

The graphics used are very basic, taking into account the capabilities of the Macintosh, showing a maze as viewed from above (ie., plan view), which is populated with tiny simplistic black bugs. At the beginning of the game three of these bugs are created, which then move around the maze, recreating themselves at intervals by laying eggs, which in turn develop into more bugs. The major threat to the existence of these bugs is the maze itself; should a bug find itself in a dead end and bang its head against a wall for long enough, it dies and disappears. Two bugs which collide automatically kill one another, and if a bug comes across an egg it will eat it, even if it is its own. Meanwhile the structure of the maze is constantly changing with walls constantly moving about to create new pitfalls. The player's task is to ensure that the bugs do not fall victim to these threats, but continue to lead happy and fulfilled lives. This is achieved by the simple process of making walls appear or disappear to create safer passages. To do this, the player simply locates the mouse pointer where the wall is required/not required, and clicks once*

Another problem for the bugs is that they have a limited life span: they eventually age (by turning white) and die. The game itself helps compensate for this by occasionally placing an egg in a random location within the maze (spontaneous generation).

Maze Survival employs digitised sound (Fritzsound) to enhance the game further. Although the sounds generated are fairly simple, they do add a further "dimension" to the game and there is a facility to customise them to the player's own taste. Four menus are available during gameplay. The first provides a quick reference screen with instructions for play and an "About Maze Survival" screen, which is accompanied by a repeated short burst of digitised music. The Control Menu allows the player to start a new game, stop the game in progress, show high scores or quit altogether. The Level Menu allows reselection of game levels in between games; the final menu has a pause facility.

The manual, which is a brief booklet outlining the features of the game, states that most menu selections also have a command key equivalent, although these are not listed. There are five skill levels to the game; the higher the skill level selected, the faster the game.

Although Maze survival is a simplistic game, it is not as easy to achieve high scores as it might appear. Points are awarded for the length of time elapsing between the player's moves, and lost every time the player creates or destroys part of the maze. It is also very difficult to keep track of all movements of the screen at once; in many of my games only one bug was left after the first few seconds, despite attempts to prevent the other two crashing into their own environments. Consequently I never scored higher than 80 points, regardless of the length of game, because it was too difficult trying to watch all the bugs at once.

I would have liked to have seen more detail in the graphics, as basic outlines and silhouettes seem somewhat too basic for the Macintosh. Maze Survival is, however, quite addictive if played for long enough, its rules are simple and clear enough to appeal to all age groups, yet it has just enough threats to encounter to pose a challenge for the player. Many of the most played computer games have been those which appeared to be the most simple (such as the perennial Space Invaders), Maze Survival certainly has at least some of the potential of these.

*The locations where this function can be performed is limited according to the configuration of walls around the chosen location.

info

Product : Maze Survival
Publisher : Blue Whale Gameworks
Performance : ❦❦
Documentation : ❦❦❦

Kurta Graphics Tablets

Kurta Graphics tablets are intelligent grahics tablets for the Macintosh II and SE. Absolute positioning is enabled by the fact that every point on the graphics tablet coincides with a point on the screen.

The tablet will locate the position of the pen even with a thick document placed on its surface.

There are three sizes of tablet:- 8.5" x 11"; 12" x 12"; 12" x 7".

The tablet also has up to 23 programmable function keys and several pointing devices are available, both corded and cordless. Prices range from £295.00.

(Press Release)

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Macintosh Technical Note #205
MultiFinder Revisited

Written by: Dave Burnard , August 1, 1988
Revised by: Andrew Shebanow, December 1988
© Apple Computer, Inc.
This Technical Note describes several new features found in MultiFinder 6.0 and a few more commonly-asked questions.

Changes since October 1, 1988:
Added new 'SIZE' resource flag bits for 32BitCompatible and getChildDiedEvents.

How Can I Tell if MultiFinder is Present
Once again, you can't. Previous Technical Notes discuss how to check for the new services available with MultiFinder (i.e., _WaitNextEvent and the temporary memory allocation calls).

Currently, since an application cannot tell if MultiFinder is present, the application also cannot know how a sublaunch will behave (see Technical Note #126). Unfortunately, the two possible sublaunch behaviors are radically different; with MultiFinder the _Launch trap will return to the application and without MultiFinder it will not. For most applications,however, these differences in sublaunch behavior should not matter. Hopefully, the _Launch trap will be improved in a future System Software release.

_WaitNextEvent is Always Available
In System 6.0 and later, _WaitNextEvent is present whether or not MultiFinder is installed. Calling _WaitNextEvent without MultiFinder installed is virtually identical to calling it with MultiFinder installed. Your application can still "sleep" for a specified time and be notified if the cursor location is outside a specified region. The only difference is that your application will not be suspended or resumed when MultiFinder is not installed. If your application requires System 6.0 or later, we recommend calling _WaitNextEvent instead of _GetNextEvent in your main event loop.

_MFMemTop Errata
The *Macintosh Programmer's Guide to MultiFinder*, dated June 3, 1988 and distributed through APDA, incorrectly documents _MFMemTop on page 90. _MFMemTop does not return a pointer to the top of your application's memory partition as it is documented. It does, however, return a pointer to the top of the physical RAM of your machine.

_MFTempHandles Are Not Handles
The MultiFinder temporary memory allocation call, _MFTempNewHandle, currently does not return a "true" Handle in the sense that it can be used interchangeably with a Handle obtained from _NewHandle. Specifically, you cannot pass a Handle obtained from _MFTempNewHandle to any Memory Manager routine or Toolbox routine which, in turn, passes it to the Memory Manager (either directly or indirectly). Like a "true" Handle, however, you can still dereference a Handle from _MFTempNewHandle. You should treat a Handle from _MFTempNewHandle in the same way you would a fake Handle (i.e., a Handle not obtained from the Memory Manager—see Technical Note #117). This restriction on the use of MultiFinder temporary memory may not apply in future System Software releases.

Mouse-Moved Event Confusion
There has been some confusion over the mouseRgn parameter to _WaitNextEvent, and under what circumstances it will return a mouse-moved event. Most of the confusion is caused by the word "moved." Many applications have assumed that mouse-moved events are generated only when the mouse actually leaves the mouse region. In System 6.0 and later, _WaitNextEvent will return a mouse-moved event whenever the cursor is outside the mouse region. Thus, when an application receives a mouse-moved event, it should compute a new mouse region based on the new cursor location before calling _WaitNextEvent again, otherwise _WaitNextEvent will continue to return mouse-moved events until the user moves the cursor back inside the mouse region, or a new mouse region is specified.

New MultiFinder Features—Open Document and Quit
In System 6.0 and later, MultiFinder adds the ability to open application documents from the Finder even though the owner application may already be open. For the moment, MultiFinder accomplishes this by simulating a mouse-down event in the application's menu item for opening files. The application will usually respond by calling _SFGetFile, which MultiFinder short circuits into returning the document opened in the Finder layer. This is similar to the way that MultiFinder triggers applications to quit when the user selects Shut Down or Restart from the Finder's Special menu.

In future System Software releases, this mechanism will probably change to a more straightforward method of notifying the application that it needs to open a document or to quit.

How does MultiFinder find the Open item, you ask? By default, MultiFinder looks for a File menu with an item named Open..., Open ..., Open..., etc. Of course some applications will not have a File menu or will have named their Open item something different like Open Document. To allow for this, MultiFinder will look first in the application's resource fork for resources of type 'mstr' or 'mst#' in the range 100–103. An 'mstr' resource has the same format as an 'STR ' resource (just a Pascal string) and

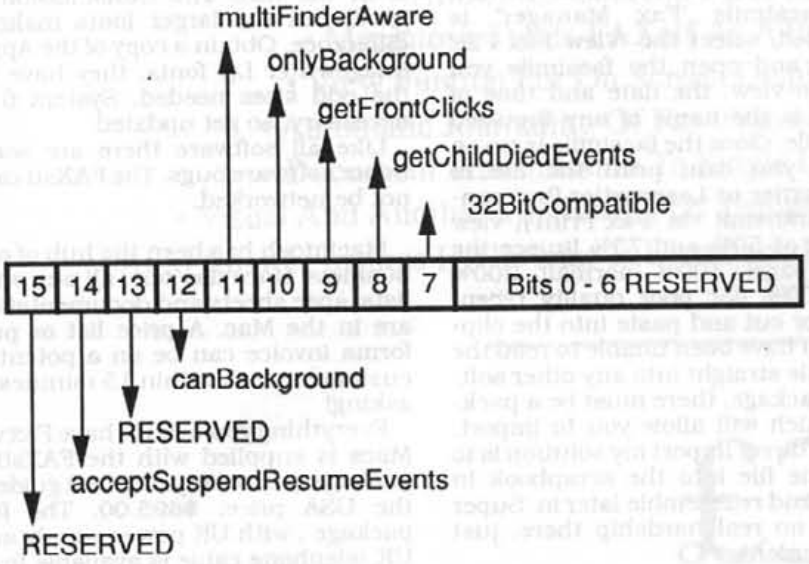
contains the name of the menu or menu item for which MultiFinder should look. An 'mst#' resource has the same format as an 'STR#' resource (a list of Pascal strings) and contains a set of names for the menu or menu item for which MultiFinder should look. MultiFinder uses the same mechanism to locate the application's Quit command.

Res ID	Meaning
100	Name(s) of the menu containing the quit command
101	Name(s) of the menu item corresponding to the quit command
102	Name(s) of the menu containing the open document command
103	Name(s) of the menu item corresponding to the open document command

As always, be careful to avoid any "clever" tricks that rely on this information, MultiFinder will not always work this way.

New MultiFinder Features—Additions to the 'SIZE' Resource

The 'SIZE' resource has four new flags (onlyBackground, getFrontClicks, getChildDiedEvents, and 32BitCompatible) which communicate information about an application to MultiFinder. Figure 1 below illustrates the locations of these new flags. Setting both the onlyBackground flag and the canBackground flag informs MultiFinder that an application is a "faceless background task," that is, it has no user interface (i.e., no windows and no ports) and should only be run in the background. For example, the application Backgrounder is a faceless background task with both onlyBackground and canBackground set.



An application can set the getFrontClicks flag if it wants to receive the mouse-up and mouse-down events when the user brings the application's layer to the front. Typically, the user merely wants to bring an application to the front, so it may not be desirable to move the insertion point or start drawing immediately after coming to the foreground. If getFrontClicks is set, the mouse click will be passed to the application. If the click was made in the content region of the background application's front window, the application would receive a click in the content region of that window if getFrontClicks is set.

Clicking on a window that is behind a window within the same layer will cause the usual event processing (i.e., the mouse-down event will be visible to the application), for which the application will call _SelectWindow, bringing the window forward. This is true whether or not the bit is set. Ordinarily these events are not passed to the application, so setting the getFrontClicks flag is usually not appropriate. The Finder, however, is one example of an application which has the getFrontClicks flag set.

The getChildDiedEvents flag is used by SADE to get notification when an application it launched quits or crashes. When you get a childDiedEvent, the message field of the event record will look like the following:

$FD	Status	Reserved	Reserved

The Status parameter will be a system error code if the application crashed, or zero if it quit normally. The where field of the event record contains the process identifier (pid) of the quitting process. The _Launch trap returns the pid of the newly created application in D0 if the _Launch succeeds (if D0 is negative, it contains an OS error code).

Note:

Future versions of the Macintosh System Software may operate only in 32-bit mode on 68020 and 68030 machines, so applications which are not 32-bit clean will not function correctly with these machines. The 32BitCompatible bit will be used in future systems to warn users that running an application which does not have the bit set **may crash their system**. Developers should **not** set this bit unless they have tested their applications on a 32-bit system. Currently, the only 32-bit system available for testing is A/UX, so running under A/UX should be considered the "litmus test" for 32-bit compatibility until newer System Software is available.

Other Tech Notes on MultiFinder

TN158 Frequently Asked MultiFinder Questions 3/88
TN177 Problem with WaitNextEvent in MultiFinder 1.0 3/88
TN80 MultiFinder Miscellanea 3/88

Notes in Issue of 12/88

TN108 AddDrive, DrvrInstall...
TN202 Resetting the Event Mask
TN205 MultiFinder Revisited
TN207 Styled TextEdit Changes
TN208 Setting and Restoring A5
TN217 Font Icons
TN218 New High-Level File Mgr
TN219 New Memory Mgr Glue
TN220 Segment Loader Limits
TN221 NuBus Interrupt Latency

FAXstf™

If you need Fax which is easy to use, talks to your Macintosh and costs less than half the price of traditional Fax then read on:

INTRODUCTION

I stumbled across the FAXstf™ last September 1988, I had always found my facsimile bureau inconvenient and expensive, now I was being offered group III FAX straight from my Macintosh, I bought eagerly. This first unit was from the USA, the telephone cable needed modifying and the power supply required 110 Volts. The 'Black Box' which handles everything measures 86mm X 160mm X 30mm (it sits comfortably on top of my Mini Qisk), one cable connects to the Macintosh modem port and one cable connects to the telephone socket. Two diskettes contain 'System 6' (USA), 'Fax Print', 'Fax Manager', 'Fax Monitor' and 'Printing Tools'. 'Printing Tools' contains all the standard Apple printer icons.

'Fax Print' once placed in your system folder appears in chooser, yes the Mac treats the FAXstf™ as a printer.

'Fax Manager' has all the control and monitoring functions but is memory hungry wanting 700K in Multifinder. You have to define: the type of dialing FAXstf™ is to use (pulse or tone), how many rings before answering, your identification to other Facsimile equipment, how many attempts at redial FAXstf™ should make and which Mac port the FAXstf™ is connected to.

'Fax Monitor' automatically transmits and receives facsimile in semi-background running under Multifinder, and consumes only 96K.

TRANSMITTING

I opened a document in Microsoft Works WP, typed a few lines to a friend, selected chooser and clicked the 'Fax Print' icon. On my return I received the page width too great warning, a few reductions in page width later and seven inches was just right. 'Control P' brought up a new printing dialog box with the normal print options associated with Works. Choosing 'best' transmits the document at 200 X 200 DPI, 'faster' at 200 X 100 DPI, therefore 'best' takes longer, costs more on telephone line time but has the best quality, 'faster' seemed appropriate as my letter was short using Times 12 point. Another dialog box appears with my telephone directory, which contains regularly used numbers for ease of use, unfortunately the directory doesn't store the names and numbers alphabetically, but in the order they had been entered (It is possible to have more than one directory). I now selected the date and time the facsimile should be sent, for example if the fax was going to the West Coast USA there is little point in transmitting at 3pm (7am there). The FAXstf™ software saves the document in its own format with a default or user defined name, and that was that, I could go back to what ever I was doing. A few seconds later the 'Sending A Fax' dialog box interrupts, which; automatically dialed the number, carried out all the 'handshake' with the remote facsimile machine and transmitted my document, I was then returned to where I left off. The FAXstf™ has a built in loud speaker which allows audible monitoring of the transmission, fortunately it can be turned off with the software.

RECEIVING

There is little control over this, the phone rings, the FAXstf™ automatically answers and interrupts what your doing with the 'Receiving A Fax' dialog box, at this point go make yourself that coffee, there is no way of knowing how many pages are coming in (I've had a 15 page document arrive, which took 13 minutes), this is what I meant by semi-background, the software will answer from the back-ground in Multifinder, spools the incoming file to your hard disk (therefore no loss of memory) but you lose the use of your Mac while the fax is inputted. The FAXstf™ returns your Mac at the point you were interrupted, so far I have not had a bomb, or lock out, when returned. To view the facsimile 'Fax Manager' is launched, select the 'View Fax File' option and open the facsimile you want to view, the date and time of arrival is the name of any inputted facsimile. Once the facsimile is up on screen you can; print the file to Imagewriter or Laserwriter (but cannot retransmit via 'Fax Print'), view the file at 50% and 75% (to see the whole page), 100% (normal), 200% and 300% (for poor quality receptions) or cut and paste into the clipboard. I have been unable to read the facsimile straight into any other software package, there must be a package which will allow you to import. Failing direct import my solution is to copy the file into the scrapbook in pieces and reassemble later in 'Super Paint', no real hardship there, just inconvenient.

OTHER FEATURES

For those of you unable (or unwilling) to run Multifinder then; while the machine is in use through the day facsimile can be transmitted and received manually (via the software), at night or lunch times it can be set to automatic. In manual 'Fax Manager' is used, automatic uses 'Fax Monitor' (ie separate applications for separate needs).

A record of all facsimile activity is kept by 'Fax Manager' in the 'Activity Log', this record may be printed for archiving. The 'Activity Log' has a finite size and does need clearing.

A single facsimile document can be transmitted to more than one destination, this is referred to as 'Grouping', and like storing telephone numbers 'Groups' can be stored. One suggestion was to mail shot customers by creating a 'Group' of their facsimile numbers, then transmit during cheap rate time!

COMMENT

All software which prints using the accepted Apple printing routes will transmit successfully, you guessed it, there are packages which don't. I have encountered two, so far; an old copy of MacPaint and Quark Express 2.0 (latest version), Express 1 works. I have tried the popular word processing and graphics applications successfully, with quality of transmission excellent, an example in 'PageMaker 3.0' was a full A4 sheet of text typed in Times 8 Point, with 10% shading behind the text, transmitted to a traditional facsimile machine in low resolution (200 X 100 DPI) was easier to read than the same document printed on an Imagewriter II. The transmission took 2 minutes 10 secs.

To obtain the best quality text transmission the fonts you use are important, the FAXstf™ software when converting looks for three times the size of font you use, ie it looks for Times 36 Point when Times 12 Point is in the text. The transmission is good, but the larger fonts make a difference. Obtain a copy of the Apple Imagewriter LQ fonts, they have all the odd sizes needed. System 6 is necessary, so get updated.

Like all software there are some minor software bugs. The FAXstf cannot be networked.

Macintosh has been the hub of our business since day one, all our price lists, spec sheets and documentation are in the Mac. A price list or proforma invoice can be on a potential customers desk within 15 minutes of asking!

Everything you need to have Fax via Macs is supplied with the FAXstf™ package, prices vary, the best guide is the USA price: $695.00. The full package , with UK power supply and UK telephone cable is available from The Acme Computer-Service Co. in Derbyshire on 0246 590522 at £395.00.

Finally the unit is NOT approved for use on British Telecom equipment, however it is approved for use in the USA. Approval is being sought with British Telecom, I predict the price will rise substansially with that approval. **Peter Bradley**

FACSIMILE

WITH

MACINTOSH

Transmit and receive Facsimile with the ***FAXstf*** ™ via the Macintosh

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- On Line Directory, Autodial For Frequently Dialed Numbers •
- Total Compatability With Group III Facsimile Equipment •
- Immediate Or Delayed (Sheduled) Transmissions •
- Ability To Cut And Paste In-Coming Fax's •
- Macintosh Treats **FAXstf** As A Printer In The Chooser •
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Outside Bug Reporter

© 1986-88 Apple Computer Inc.

(Available on Library Disk 901 Update 1)

If you find a bug with Apple software or Apple hardware, the Apple Computer Bug Report Center would like to know about it. We would like to provide users and developers of Apple products with an easy method of writing, saving, and sending bug reports to the Bug Report Center at Apple Computer, Inc. Outside Bug Reporter standardizes the way Bugs are reported to the Apple Computer Bug Report Center. This enables our engineers to fix bugs, and create enhanced products for the future. As part of our ongoing commitment to customer support and user improve the communications and relations between Apple Computer, Inc., and the users of Apple Products.

Setting Things Up

On the Outside Bug Reporter disk, you will find the Outside Bug Reporter application, and these instructions. Copy the application to the disk of your choice. **You must have a Mac 512Ke, MacPlus, a Mac SE, or Mac II in order for Outside Bug Reporter to run.** Outside Bug Reporter is MultiFinder friendly. You can double click on a bug document to launch the application and load that document. If you try to open more than one document at a time, Outside Bug Reporter will just open the first one you selected.

Also, Outside Bug Reporter prints from the Finder. If you select a bug (or bunch of bugs) in the Finder and choose Print, the application and document(s) will open, and you'll get one print dialog for the set of documents you opened.

Starting the Application

When you discover a bug, first try to recreate it. Then, open the Outside Bug Reporter application. A General Information screen will appear with the information that was entered in the template of your particular copy. Outside Bug Reporter puts the current date in the Date Reported field whenever you open a new bug.

A normal, healthy Outside Bug Reporter app looks like this:

Outside Bug Reporter

The Outside Bug Reporter Menus

The Apple Menu (apple)

About Reporter...

This will give you the version number and any other pertinent information.

Below the About... item are the usual DA's that do the usual stuff in the usual way.

The File Menu

New Bug

This command is for creating a new bug. If a report is open and has been modified since its last save, Outside Bug Reporter will ask you if you want to save the changes before creating a new bug. If you continue, the old bug will be erased from memory. Outside Bug Reporter will then read the template on your disk and put the current date in the Date Reported field.

A normal, healthy Outside Bug Reporter bug looks like this:

Open Old Bug...

This is for opening a previously saved bug. You will see the standard Macintosh file dialog box. Choose a bug document and click open.

Save

If the bug you're working on hasn't already been saved, this command will prompt you with the standard save dialog box for a name and a folder/disk in which to place the bug. If it has been saved, then it updates the information on disk.

Save as...

The default name that you will see in this command's dialog box will be whatever is in the Refnum field (see page 4 regarding Refnum). If, for example, your Refnum number for a particular bug is "SD-KL016," then the default name will be "SD-KL016."

Save as Text...

This command will save the current bug in a text format. It suggests the name of the bug with the word "Text" appended to the end of it as the default name. The resulting file can also be read by any text editor.

Save as Text is only useful if you are going to put your bugs into some other database.

The text dump of a bug looks like this:

Save to Template

This sets your template to the current bug information. The old template will be erased and replaced with the new information. **Templates** are useful for storing information that generally doesn't change from bug to bug. Things like, your name. If you enter your name in the Reported By field and then save to template, your name will come up in that field every time you ask for a new bug.

So, the thing to do is type in your name, your hardware configuration and software configuration, and anything else that usually stays the same (you can always change it), and save it to the template.

The template is part of the Outside Bug Reporter Application, and so will follow it wherever it

goes.

Print Bug...
Choosing this command will print your bug. At the very end of the printout there will be a bug icon to signal that printing is done.

Note: Outside Bug Reporter uses the Times font to print. Make sure you have Times in your system file. If you're using a LaserWriter, the sizes of the font you have don't matter. If you have an ImageWriter, make sure you have the 12 and 24 point sizes.

Quit
This quits Outside Bug Reporter. If there have been any changes since the last save of the current bug, you will be asked if you want to save those changes.

The Edit Menu
Undo
Outside Bug Reporter doesn't Undo. This menu item is here just incase a DA wants to use it.

Cut, Copy, Paste, Clear
They're all here, and they work as you'd expect them to.

The Screen Menu
This series of menu commands allows you to move quickly from frame to frame. Thus, if you're looking at the first frame and want to get to the fourth, you can simply use one of these menu commands, or their keyboard equivalents as a shortcut.

Note: There are additional ways of moving from one screen to another:

- Click on the buttons at the bottom of the window that say Next Frame>> and <<Previous Frame.
- Hold down the Command key and press on the left or right arrow keys of your keyboard.

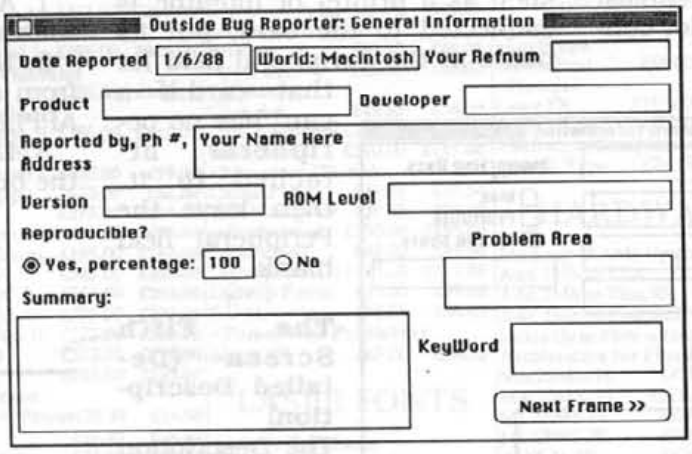
The Bug Screens
On the title bar of each screen you will find the name of the bug you're working on followed by the title of the screen.

Use the Tab or Return key to move from one field to the next.

Note that Outside Bug Reporter doesn't have scroll bars for its text fields. If you type in more text than you can see in a field, you can use the up and down cursor keys to move through the text. You can also click and drag through the text to artificially scroll it.

The First Screen (General Information)
Date Reported: The date you wrote this bug. This field is filled in with the system clock's date whenever you start a new bug.

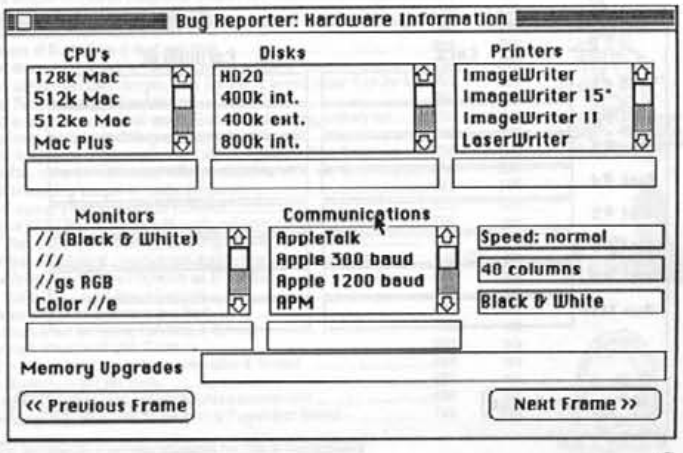
World: When you click on this area of the screen the World setting will change from Mac to Apple II and vice versa.



Your Refnum: It is suggested that you enter your initials and a number. Something should be entered in this field so that you can refer to this bug once it's in the BRC's database.
Product: This is the name of the product that the bug occurred in.
Developer: The name of the party responsible for developing the product, if known.
Reported By: Your name here, including phone number (extension) and mailing address. If you have an AppleLink or MCI Mail account, put that here also.
Version: The version of the product the bug occurred in.
ROM Level: This is the version of the ROM the bug occurred on. It's not always important. You may want to check the necessity of it.
Reproducible?: If you choose Yes, you should type in a percentage. How often does it occur? Meaning, when you try to reproduce it, does the bug occur 3 times out of 6? 10 out of 10? When you click on Yes, the percentage is automatically set to 100. When you click on No, it goes to zero. If the number in the box is zero and you type in a new number, the selection will be changed from No to Yes and vice-versa. This field only accepts numbers from 0 to 100.
Problem Area: This field is normally filled in by the folks working on the product. Some general terms to put here are System Software, Documentation, or Application. If you aren't sure what to put, just leave it blank.

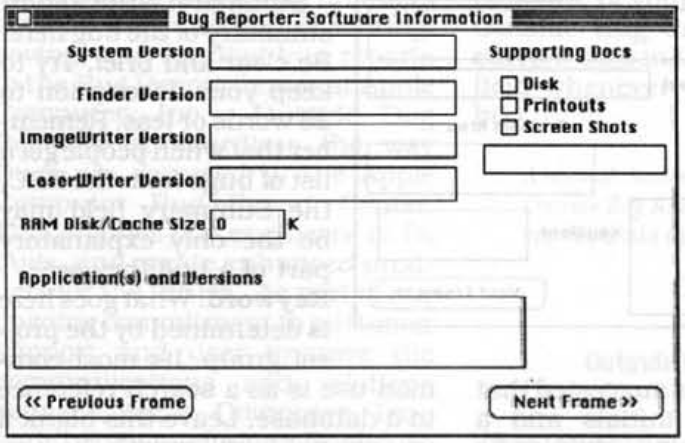
Summary: Write a short summary of the bug here. Be clear and brief. Try to keep your description to 25 words or less. Remember that when people get a list of bugs from the BRC, the Summary field may be the only explanatory part of a bug they see.
Keyword: What goes here is determined by the project group. Its most common use is as a search reference in a database. Leave this blank if you are not familiar with the keywords the group is using.

The Second Screen (Hardware Information)
The Hardware Information screen is made up of a number of windows listing the hardware used. Text fields are located beneath each window, so you can add equipment not listed to your hardware configuration. Outside Bug Reporter puts a semicolon (;) after each hardware entry when it prints out, so separate each



prototype entry with a semicolon if you enter more than one. To select more than one item in the list, hold down the shift key while selecting the items. To deselect all of the items in the list, scroll to the bottom of the list and click in the blank area.

To the side of the Communications window are three phrases which toggle when clicked the same way the World setting toggled in the first screen. The phrases are primarily for Apple II use. At the bottom of the screen is the Memory Upgrades field. This field is for those reporting Macintosh bugs. Apple II testers can list expansion cards in the slot configuration section.



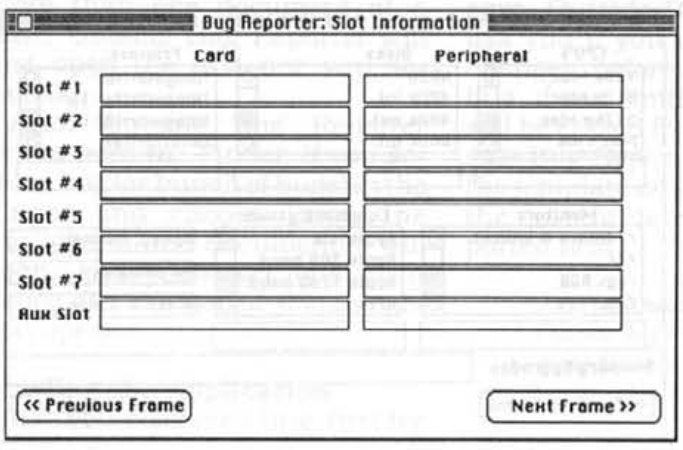
The Third Screen (Software Information)

The Software Information screen contains version fields which are simple text fields. Fill out only the ones that apply to your machine. In the ProDOS world, for example, you probably won't need to fill out the Finder Version field very often.

The RAM Disk/Cache Size field accepts numeric input only. The check boxes on the right are for indicating supporting documentation such as disks and printouts.

The Fourth Screen (Slot Configuration)

This screen used to be primarily for Apple II bug reporting, but now you can use it for Mac II or SE bugs.List the cards in the CPU where the bug occurred. If a peripheral, such as a printer or monitor, is connected to the card, put its name in the Peripheral field for that card.If a card has no peripheral attached to it, then leave the Peripheral field blank.



The Fifth Screen (Detailed Description)

The Description template is where you describe your bug. Try to be clear and concise. The best way to report a bug is to go through, step by step, how it can be recreated, much like writing a recipe. The bottom of the screen keeps a count of how many characters you have used in your description. It will not allow more than 1999. Use the arrow keys to scroll beyond the top or bottom of the field.

And Another Thing... Getting a Bug from Here to There

Once you've written your bug, you need to send it to the Bug Report Center. The first thing to do is save it. You do this with the Save... or Save as... command in the File menu. Once you've got your bug saved to disk, you can send it to the BRC in any of the following ways:

1. AppleLink: send the bug file to the account Apple.Bugs.
2. MCI Mail: send the text file from a Outside Bug Reporter to APPLEBUGS.
3. U.S. Mail: Send a disk with the bug to...

The Bug Report Center
Apple Computer, Inc.
M/S: 27-AN
10500 N. DeAnza Blvd.
Cupertino, CA 95014

MacDigitek

Itek Graphix have published the following press release about their product, MacDigitek. MacDigitek is a translation program which automatically converts Apple Macintosh LaserPrep PostScript™ files into a format suitable for typesetting. The MacDigitek connection allows direct typesetting from a macintosh to the Digitek typesetter from Itek Graphix. All text, rules and scanned graphics are output in position, as created on the macintosh screen.

Some of the enhanced capabilities of MacDigitek are:-

- High resolution output, up to 1333 dots per inch.
- High speed output, up to 95 lines per minute.
- 72 pica output, handling A3 and tabloid sizes.
- Access to the complete Itek Graphix font library, over 700 faces.
- Up to two Macintosh terminals on-line.

More information can be obtained from Itek Graphix, Ltd., Westlink House, 981 Great West Road, Brentford, TW8 8BR.

MacSoft

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Graphist Pnt II	£495.00	£399.00
•Altsys		
FONTastic+ II	£74.00	£45.00
Fontographer II	£294.00	£225.00
Keymaster	£99.00	£79.00
•Chang Labs		
C.A.T.	£295.00	£269.00
•Computa Label		
MacBarcoda	£566.00	£499.00
•Cricket Software		
Cricket Draw	£295.00	£199.00
Cricket Graph	£175.00	£127.50
Cricket Pres.	£375.00	£320.00
•Data Tailor		
Trapeze V2	£295.00	£175.00
•Deneba		
Canvas 2.0	£249.00	£195.00
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Foxbase Mac	£395.00	£319.00
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•Icon Technology		
MacAuthor 2	£245.00	£195.00
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Dreams	£322.00	£264.00
•Insignia Solutions		
Soft PC Mac	£395.00	£345.00
•Living Videotext		
MORE II	£295.00	£249.00
•MacroMind		
VideoWorks II	£195.00	£145.00
•MicroSoft		
Basic (Cmp.)	£135.00	£99.00
Basic (Intrp.)	£75.00	£60.00
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Flight Simulator	£45.00	£39.00
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Computer Atlas	£49.95	£35.00
•Software Supply		
Suitcase	£59.95	£44.00
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Click Art	£49.95	£35.00
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WriteNow II	£150.00	£117.00
•Symantec (Think)		
Capps Prme	£49.95	£37.50
HFS Navigator	£39.95	£27.50
inBox(starter)	£350.00	£235.00
LaserSpeed	£65.00	£42.50
LightSpeed C 3	£145.00	£112.00
LightSp Pascal	£85.00	£69.00
S.U.M.	£74.95	£59.00
•Turner Hall Publishing		
MacSQZ!	£65.00	£55.00

LASER FONTS

•Adobe Typefaces
(Mac or IBM & Compatibles)

	List Price	MacSoft Price
Helvetica Cond., Univers, Futura Cond., Memphis Light, ITC Eras		
each are	£302.00	£265.00
ITC Frank Goth, Univers Cond, Futura 1 & Med,Stones,Eurostile		
each are	£227.00	£195.00
Sonata, Carta and Park Avenue, Italia and Gowdy		
each are	£75.00	£60.00
All others	£150.00	£125.00
IBM Screen Fonts		
set of 10	£150.00	£139.00

These are prices for single printers. For multiple printers, prices are approximately twice single prices. Call for details.

•Casady		
FluentLaserFonts	£79.95	£59.00
•LaserPerfect		

LaserPerfect have produced some of the more obscure fonts. eg. Hebrew, Arabic, etc. Call for details

•Lexitrope		
BorderFont	£69.00	£59.00
•Postcraft		
Laser FX	£155.00	£139.00
Laser FX-Pak	£50.00	£39.00
•Software Complement		
Compl. Type	£79.95	£49.00

HARDWARE

	List Price	MacSoft Price
Memory (RAM) Upgrades		
Add 1Mb to Plus		£265
Add 2Mb to Plus,SE		£575
Add 4Mb to Plus,SE,II		£1150
Jackie Up to 20Mb in Mac II		call
Accelerators for Plus & SE		
Mac20MX-16	£795	£595
Mac20MX-25	£1295	£995
MC68881-16	£275	£199
MC68881-25	£645	£495
AOX-16 SE	£425	£265
Accelerator for Mac II		
33/030	£4995	£4250
•Dataflex (MODEM)		
Stradcom (BT apprvd)	£195	£179
(Vicom III	£175	£159)
•Irwin Tape BU		
40Mb	£985	£895
80Mb	£1280	£1195
•MacCable		
PhoneNet		call
Apple(Local)Talk		call
SCSI		call
•Nutmeg Displays		
19+ for Plus	£1795	£1495
19 for SE	£1545	£1295
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19 Gr/Sc for II	£2595	£2195
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HARDWARE BARGAIN OF THE MONTH

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S2260+ (2260Mb)	£13,400

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	List Price	MacSoft Price
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Grappler Mac(9 Pin)	£89	£79
Grappler LQ(12 pin)	£125	£99
•Miniscribe Hard Disk		
Internal for SE & II		
20Mb		£345
•Summagraphics (SE/II Digitizer)		
New Bit Pad Plus	£375	£295

*As soon as available.
*Unless program not yet released, discontinued, or sale subject to cheque clearance..

3½" Disk Laser Labels

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100 Sheets	£16
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Recharge JUMBO	£67	–

Keyboard Tilt £17.50

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PostScript Atlas UK
PostScript Maps–Europe
PS Maps–Country Modules
PostScript Tourist Symbols
PostScript 'Tourism' Font
GreyFonts LW+
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4Mb of images of children doing what children do..	£59	£29
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4Mb more of illustrations of food and drink.	£59	£29
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3Mb of images of sports. Skiing, cricket, golf, rugby etc.	£59	£29
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75 dpi files of the UK with roads, railways, counties, cities etc.	n/a	£29
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3Mb of women's heads in various activities.	£59	£29
3.2Mb of EPSF files of the UK with roads, railways, counties, cities etc.	£95	n/a
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Mac Library

Update Disks
There are four new Update Disks this month.
NB. Please note that all previous Update disks are withdrawn.

Disk 901 Update 1
Total files on volume: 50
Total directories: 16

The main items on this disk are:-
AppleScan Fixer 0.3; ArcMac.Arc; NeXT Browser (picture on page 60); Directory; Disk Switch; Facade; Gimme; MacEnvy; Ninja Term; OnCue Demo; Outside Bug Reporter; Reponer; SCase & Pyro Updaters; SCSI Evaluator 1.00; ToMultiFinder 2.2.

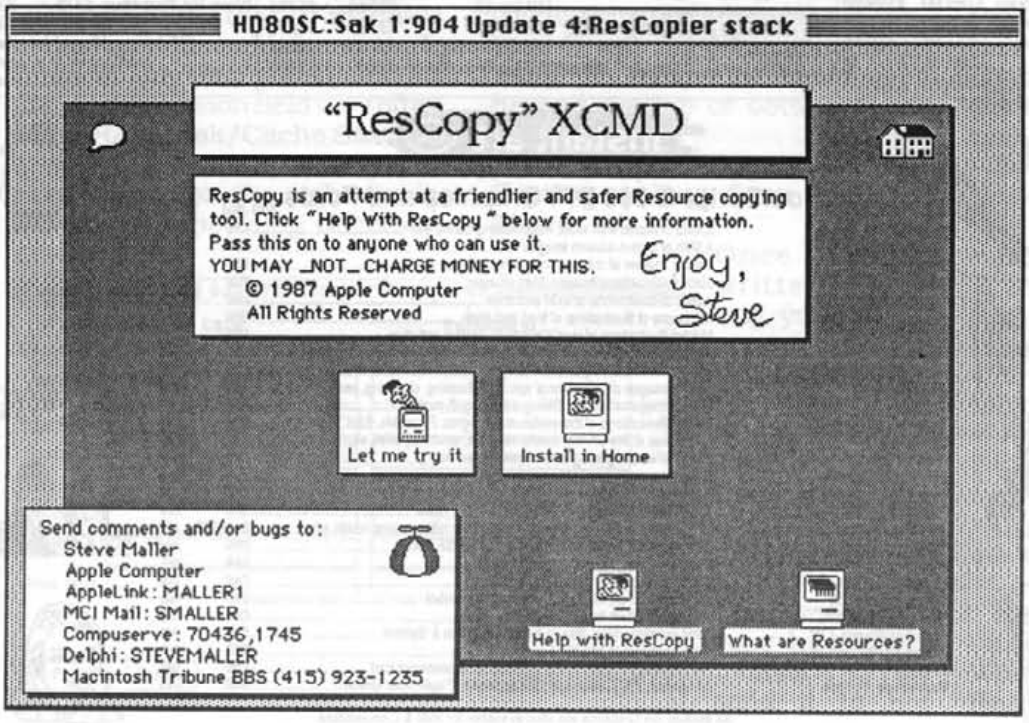
AppleScan Fixer
This has one purpose in life: it changes String # 7 of the STR# 1000 resource in AppleScan to "Untitled Set".
Why would anyone want to do a thing like that? Because, apparently (I don't have AppleScan), if you change some settings and then save the changes, you will (if you use the defaults) save to a file name of "Untitled Settings - 2" which is beyone the maximum length limit. The consequence apparently is a system error, ID =12.
How to: Run AppleScan Fixer. Select your AppleScan application (WORK ONLY ON A COPY. NEVER MODIFY AN ORIGINAL.) from the file selection box. AppleScan Fixer will report what the string originally was and what it set it to. Click the mouse and you're done. Bug reports to Lofty Becker, CompuServe 76703,4054.

ArcMac
This is an archiving program with a twist.

On Cue 1.3 Demo
On Cue is an INIT that installs an easily configurable menu of applications and documents. The menu is automatically available in almost all applications, so a single click of the mouse will take you to any application, or any document at any time! This demo will only allow you to install 4 applications and must be reconfigured after each restart.

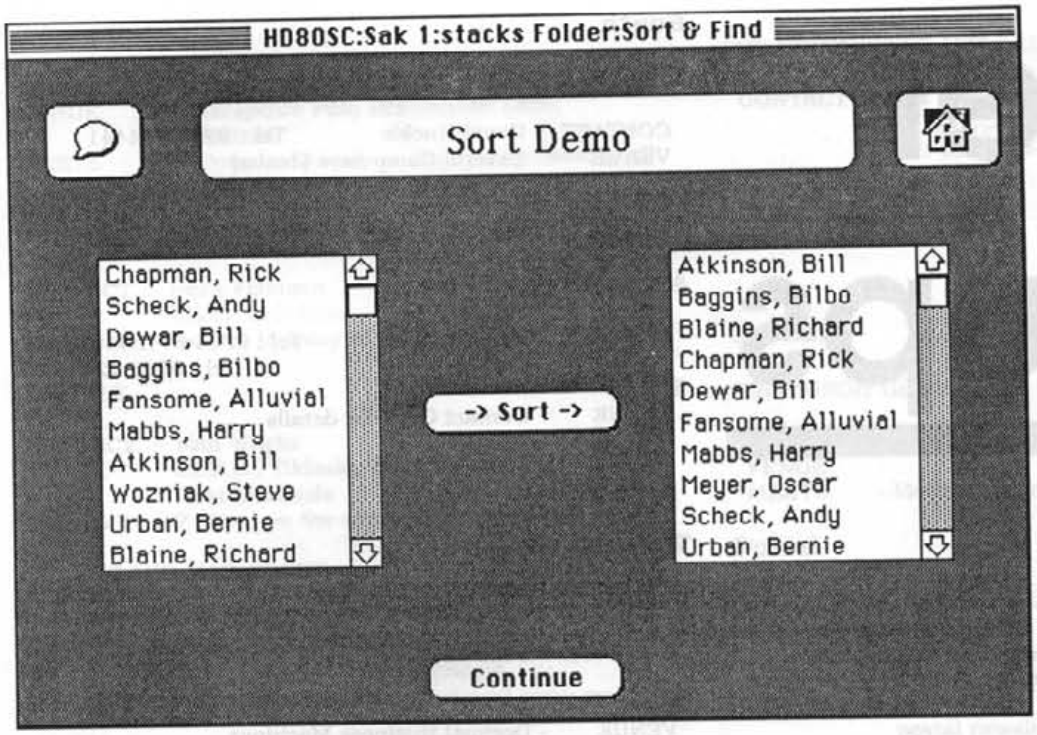
NinjaTerm 0.962
This is a terminal emulator capable of understanding both ASCII and JIS (Japan Industrial Standard) files. This program would be useful for the growing minority who understand Japanese and would like to communicate with their colleagues and/or friends in Japan in their native language. Otherwise, it is a darn good terminal emulator as well.
This piece of software has to be used in conjunction with the utility KanjiTalk by Apple. Also included in this package is a documentation file on NinjaTerm written in Japanese by its author Michael Ariza, where his e-mail address can be found.

MacEnvy 1.0d8 CDEV
MacEnvy is a control-panel device (CDEV) written by Ken McLeod. MacEnvy displays information about your Mac's environment: model, memory size, coprocessor type, ROM size and version, AppleTalk status, Finder and System version numbers, and other good stuff. It also has a small game of Life built in, for your casual amusement.



Gimme
[Gimme_Back_SysBeep INIT]
This INIT restores the old SysBeep for Plus or SE ROMs. Useful if you hate the new toy SysSqueek feature in System 6.0

Façade (a.k.a. FaceLiftPlus)
-by Greg Marriott, who writes: This is an INIT which allows a user to assign special ICN#s to their disks. It installs a patch to Control which watches for the "give-me-an-icon" call to mountable volumes. If the call is being made to a driver in the drive queue, it checks to see if that drive/driver combination appears in any VCB entry. If it



does, the volume name is extracted from the VCB and compared against Façade's dictionary of named ICN#s (loaded at INIT time). If a match is found, the patch returns the address of the dictionary entry instead of the driver's icon.
Since the dictionary lookup is performed every time the right Control call is made, a disk's icon can be changed by simply changing the name (and then making the Finder re-draw it by selecting and/or moving it). I've got icons for all the different servers I mount on a regular basis. HDs, floppies, tapes, AppleShare volumes, etc can all have custom icons. Place named ICN#s into the INIT file for each volume you want to "dress up."
Façade successfully returns an icon pointer even if the driver being called doesn't support the proper Control calls.

Suitcase Updater
Suitcase II 1.2.1 has a bug which prevents the suitcases being loaded in a
second machine under Tops while using MultiFinder. The author has now issued a patcher program.

Pyro Updaters
There is a patcher to update version 3.0 to 3.1, and 3.1 to 3.2. In both cases the Patcher programs first put up a dialog with details of the bug fixes etc so that you can read all about it bofore doing anything or quitting.

****

Disk 902 Update 2
Total files on volume: 50
Total directories: 15

Anti-Virus Programs
Many of the programs on this disk are now well known, but have been gathered together so that new users can obtain them on one disk. Many of them are highly efficient in dealing with a particular virus.

The main items on this disk are:-
AntiPan; Dukakis; Interferon 3.0; Interferon 3.1; Peeker; Repair; Vaccination; Virus Rx; Ferret 1.1; KillScores; nVIR Vaccine; Warning 1.0d2.

Warning INIT
This INIT tells you on startup when your System is infected with the nVIR and Scores viruses. Throw it in your System Folder and away you go. Nothing will happen if you don't have these viruses.

Interferon
Interferon 3.1 is the latest version of a program that detects and destroys digital viral infections. It currently recognizes the modus operandi of several of the virus strains, and will be updated to recognize other strains as they appear.

****

Disk 903 Update 3
Total files on volume: 32
Total directories: 13

The main items on this disk are:-
Apple Balls; Colour Fonts; Kiddy Colour Paint; le Artiste; Moire; PICT Control Demo; Colour Paint; Genesis Videos (Not for Mac II); MacRecorder src; Speech Intf; Number Talk; Sounds Folder.
Kiddy Colour Paint and **Colour Paint** are both good little drawing and painting programs for those with Mac II colour cards.

****

Disk 904 Update 4
Total files on volume: 67
Total directories: 18

The main items on this disk are:-
Colony Demo with Maps; Bob; Break Key DA; ClipDa; CloseFile; Code Unlocker; Dial CDEF; Dial sample; Icon Grabber; Pyro! Updater; ShowInit; Snow DA; MacHack Stuff; ResMenu; Theldrow; Sort and Find Stack; ResCopy stack.

Colony Demo with Maps
The map files are in PICT format; they can be read by MacDraw, SuperPaint and probably some other drawing programs.

Theldrow
This is also a game where characters can be created and pitted against an adverse environment (picture on page 60).

Also on the disk are two HyperCard Stacks:- Sort and Find stack and ResCopy stack. Screen dumps from these two stacks are shown in this article.

User Groups

London Region

ESSEX GROUP

CONTACT - Pat Bermingham Tel : [illegible]
VENUE - The Y.M.C.A., Victoria Road, Chelmsford
MEETS - Third Friday of every month

CROYDON APPLE USERS GROUP

CONTACT - Graham Attwood Tel : [illegible]
VENUE - 515, Limpfield Road, Warlingham, Surrey
MEETS - 7.30pm on the third Thursday of every month

HERTS & BEDS GROUP

CONTACT - Norah Arnold Tel : [illegible]
VENUE - The Old School, 1, Branch Road, Park Street Village, St Albans, Herts.
MEETS - 8.00pm on the first Tuesday of each month

KENT GROUP

CONTACT - Richard Daniels Tel : [illegible]
VENUE -
MEETS - Contact Richard

LONDON APPLE II GROUP

CONTACT - Chris Williams Tel : [illegible]
VENUE -
MEETS - Contact Chris

LONDON MACINTOSH GROUP

CONTACT - Maureen de Saxe Tel : [illegible]
VENUE - Room 683, London University Institute of Education, Bedford Way, London, WC1
MEETS - 6.00pm on the second Tuesday of every month.

M25 BUSINESS MAC GROUP

CONTACT - Jim Panks Tel : [illegible]
VENUE - Sir Mark Collett Pavilion, Heaverham Road, Kemsing, Sevenoaks, Kent
MEETS - Phone Jim for details

SOUTH EAST ESSEX MAC GROUP

CONTACT - Mick Foy Tel : [illegible]
VENUE - D.P.S. Acorn House, Little Oaks, Basildon, Essex
MEETS - First Monday of each month

South

POOLE MACINTOSH USER GROUP

CONTACT - David Huckle Tel : [illegible]
VENUE - Deverill Computers (dealer) Itec House, 34-40 West Street, Poole, Dorset BH15 1LA
MEETS - Four times a year

SOUTHAMPTON

CONTACT - Geoff Parson Tel : [illegible] (work) [illegible] (home)
VENUE - Contact Geoff for details

Wales and West

BRISTOL GROUP (B.A.U.D)

CONTACT - Colin Rogers Tel : [illegible] (work) [illegible] (home)
VENUE - Decimal Business Machines Three Queens Lane, Redcliffe
MEETS - 7th day of each month, or the Friday nearest to it if the 7th falls on a Saturday or Sunday

HANTS & BERKS GROUP

CONTACT - Joe Cade Tel : [illegible]
VENUE - Thames Valley Systems (Apple Dealer), 128 High Street, Maidenhead, Berkshire, SL6 1PT Tel 0628-25361
MEETS - 7.00pm on the second Monday of every month

MACTAFF - SOUTH WALES MAC GROUP

CONTACT -
VENUE - Apple Centre South Wales, Longcross Court 47 newport Road, Cardiff
MEETS - Contact Apple Centre

Midlands

CAMBRIDGE APPLE USERS GROUP

CONTACT -][Ian Archibald Tel : [illegible]
Mac Richard Boyd Tel : [illegible]
VENUE - Parish Hall of St Mark's Church, Barton Road Cambridge
MEETS - Fortnightly alternating between Mac and Apple II

EAST MIDLANDS MAC USER GROUP

CONTACT - Nick Helm Tel : [illegible]
VENUE - Wilford Cricket & Rugby Club, Nottingham
MEETS - 8.00pm on the first and third Wednesday of every month.

GATEWAY COMPUTER CLUB

CONTACT - Vern Tel : [illegible]
Robin Boyd Tel : [illegible]
VENUE - Bob Hope Recreation Centre, R.A.F Mildenhall
MEETS - AMS conference room, Mildenhall base. Normally at weekends, check with Robin NOTE : Although the venue is on a service base it is not in a security restricted area so the club is open to interested parties.

LEICESTER GROUP

CONTACT - Bob Bown Tel : [illegible]
VENUE - Shakespeare Pub, Braunstone Lane, Leicester
MEETS - 7.30pm to 10.0pm on the first Wednesday of every month

LIVERPOOL GROUP

CONTACT - Irene Flaxman Tel : [illegible]
VENUE - Check with Irene
MEETS - Second Monday of every month.

MIDAPPLE

CONTACT - Tom Wright Tel : 0527 575188
VENUE - I.T.E.C., Tildasley Street, West Bromwich, West Midlands
MEETS - 7.00pm on the second Friday of every month

THE MIDLAND MAC GROUP

CONTACT - Ivan Knezovich Tel : [illegible]
VENUE - Spring Grove House, West Midland Safari Park, Bewdley, Worcestershire.
MEETS - 8.00pm on the first Tuesday of every month

WEST MIDLANDS AMATEUR COMPUTER CLUB

CONTACT - John Tracey Tel : [illegible]
VENUE - Hill Crest School, Simms Lane, Netherton, Near Dudley.
MEETS - 7.00pm on the second and fourth Thursdays of each month.
NOTE - - This is not an Apple user club, it is a general interest club which welcomes users of all machines. There are currently two Apple user members.

North

BURNLEY APPLE USER GROUP

CONTACT - Rod Turnough Tel : [illegible]
VENUE - Michelin Sports Centre
MEETS - 2nd Wednesday of each month

CREW COMPUTER USER CLUB

CONTACT - Paul Edmonds
[illegible]
VENUE - Christ Church Hall, Crewe
MEETS - Fortnightly, Fridays, 7.30pm to 10.00pm
NOTE: this is a general interest group with Apple users among its members

HARROGATE AREA

CONTACT - Peter Sutton Tel : [illegible]
No active organised group in this area but there are a number of keen Apple users in contact with each other.

THE NORTH EAST APPLE COMPUTER CLUB

CONTACT - Philip Dixon Tel : [illegible]
VENUE - Apple Centre North East, Pontcland Road, Ponteland, Newcastle-on-Tyne
MEETS - First Wednesday of every month

THE NORTH WEST APPLE COMPUTER CLUB

CONTACT -
VENUE - Horse & Jockey Pub., Winwick Road, Warrington
MEETS - First Monday of every month

THE NORTH WEST APPLE USERS GROUP

CONTACT - Max Parrot
Tel : [illegible]
Tel : [illegible]
VENUE -
MEETS - Ring Max

Scotland

EDINBURGH GROUP

CONTACT - Ricky Pollock Tel : [illegible]
VENUE -
MEETS - Meetings monthly, check with Ricky

Postal

APPLE II PROGRAMMERS CLUB

CONTACT - Philip Dixon TEL : [illegible]
VENUE - None established yet
MEETS - No meetings yet, has operated through postal newsletter published quarterly
NOTE : Philip started the club some time ago based on a membership fee of #1.00 to cover the cost of newsletters. Original intention was to concentrate on BASIC and Assembler programming.

New Groups

DORCHESTER

CONTACT - Ron Hoare Tel : [illegible]
VENUE -
MEETS Meeting on March 1st -contact Ron Hoare

ORPINGTON COMPUTER CLUB

CONTACT - Terry Wheeler Tel : [illegible]
VENUE - G.E.A. Hall, Woodhurst Avenue, Petworth
MEETS - Contact Terry

DONCASTER SOUTH YORKSHIRE

CONTACT - Colin Withington Tel : 0302-53930
VENUE -
MEETS - Contact Colin

LEEDS

CONTACT - Bob Miller Tel : [illegible]
- T Veluppillai Tel : [illegible]
VENUE -
MEETS - Contact Bob

If you want to start a group, find out about a group that might be near you, please write or contact John Lee the Local Group Organiser at the PO Box in Liverpool, or phone John Lee on [illegible].

If you are a local group organiser and have not been in touch with John Lee, please contact John with details of your group, or any changes there may be to the above details.

Members' Small Adverts are FREE. Please help us to help you. Send your advertisements to us on a disk, in Mac or Apple II text format. We will return the disk, of course. This saves us time, and avoids errors.

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WARNING: The sale of copied or pirated software is illegal.
Please ensure that items offered for sale are new or are re-registered.

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Telephone Richard Chiswell after 7pm .... [illegible]

FOR SALE

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Telephone Geoff Parsons ..... [illegible]

FOR SALE

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Telephone Jim Grennell ..... [illegible]

FOR SALE

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Telephone Willy (in Eire) ..... [illegible]

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Joystick
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Cirtech parallel card

Microsoft Multiplan
MicroPro Wordstar
Hisoft Pascal 80
Applewriter //
Quick File //
TimeOut UltraMacros
ProDOS Technical Reference Manual and Programmers Workbench
Lots of manuals, books and discs

The lot **£450**
Telephone Gerry (weekends only) ..... [illegible]

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Telephone Andrew Wilson ..... [illegible]

FOR SALE

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Deskworks GS ..... **offers**
Apple /// Owner's Guide ..... **offers**
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Telephone Tony Hepworth ..... [illegible]

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MacEurope	Inside covers	Workshop 2000	32

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You want more speed from your Mac. Less time waiting, more time working. Now your dream is reality whether you've a new MacII or a 128K of legend.

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Bigger software- bigger memory.

To run Apple's great new software you are going to need bigger memory. For scanning, and many other programs, too, 1MB is not enough.

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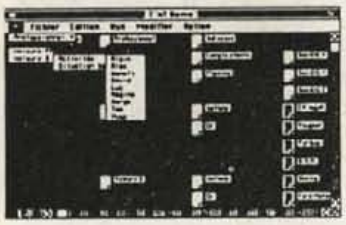
Think 'n Time £84.95



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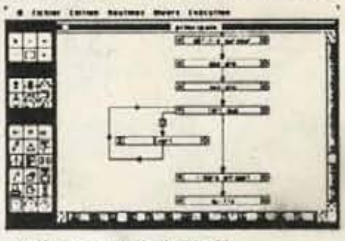

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