Apple2000

THE NATIONAL APPLE USERS GROUP

DECEMBER 1990   VOLUME 5(6)
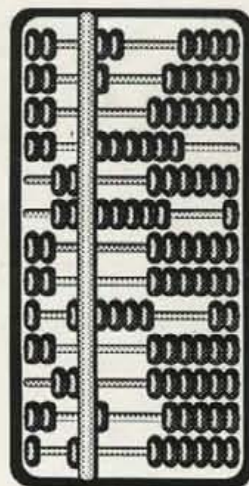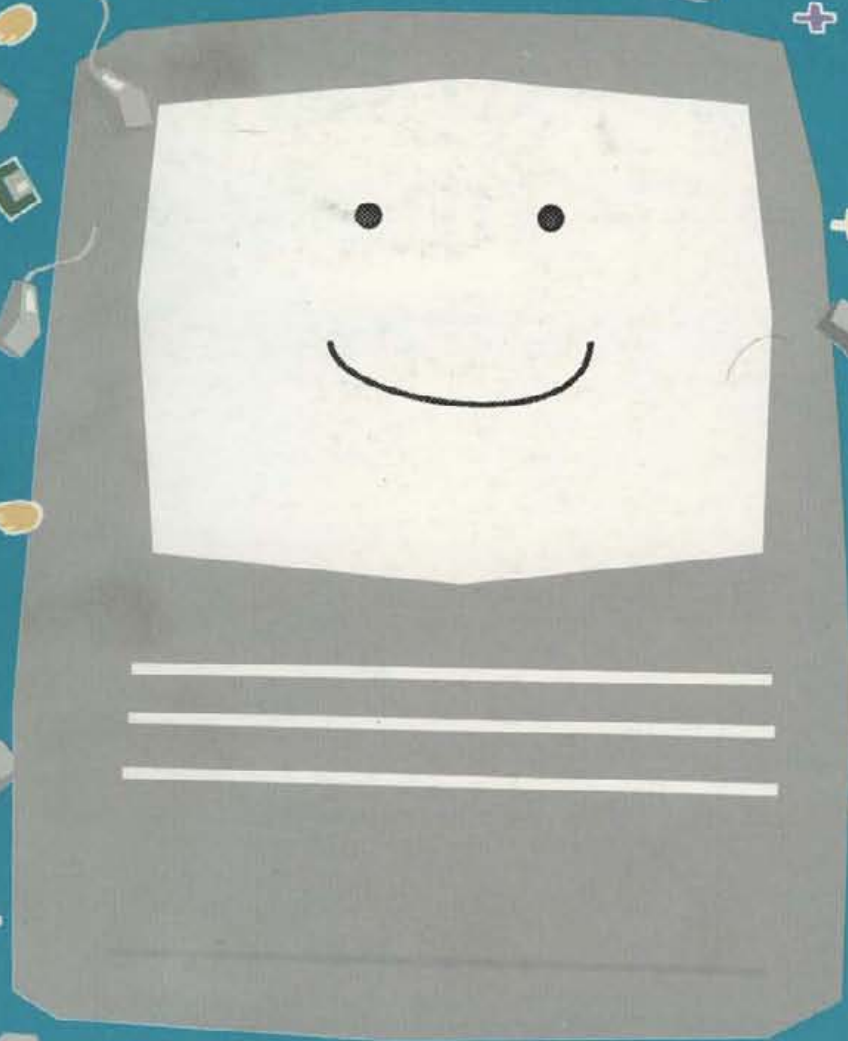
Macintosh Classic IIsi LC

Change up for better performance.

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Product	Price (£)	Product	Price (£)
FileMaker Pro *Retails for £225*		**MacDraw II 1.1** *Retails for £325*	
Upgrade from		Upgrade from	
FileMaker II or FileMaker 4	75.00	MacDraw II	25.00
FileMaker or FileMaker Plus	75.00	MacDraw	220.00
Other Macintosh databases*	95.00	**MacProject II 2.1** *Retails for £395*	
Claris CAD 2.0 *Retails for £675*		Upgrade from	
Upgrade from		MacProject	135.00
Claris CAD 1.0	60.00	MacProject II	45.00
MacDraw II	350.00	**MacPaint 2.0** *Retails for £95*	
MacWrite II *Retails for £175*		Upgrade from	
Upgrade from		MacPaint	30.00
MacWrite 5.0	45.00		
Other Macintosh word processors**	55.00		

*Includes FileForce, MS Works, MS File, dBASE Mac, Double Helix
**Includes MS Word, MS Write, Nisus, WriteNow, WordPerfect, FullWrite Professional

Wouldn't it be nice if you could trade in your old model whenever a new one comes out?

With cars and alas, computers, this is not so easy to do.

But with software, you can.

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As a loyal user, you are eligible for our special upgrade prices, with huge discounts from current recommended retail prices.

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It's our way of saying thank you for being a Claris customer- and as you can see above, even users of other software can benefit!

CLARIS™

Claris Product Upgrades
Freefone 0800 899005*

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Apple2000 supports users of all the Apple computers. The **ITT 2020, I, II, II+, //e, //c, //c+, IIgs, IIgs+, ///, Lisa, XL, Mac 128, 512 MacPlus, Classic, SE, SE/30, Mac LC, II, IIsi, IIcx, IIci, IIx, IIfx** and the **Mac Portable**
Contributions and articles for the magazine are always welcome. We can handle any disk size or format. Please send to the PO Box, L21 8PY.

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

There are a number of ways to contact Apple2000

If you wish to order goods or services from Apple2000 or just leave us a message, call Irene on ░░░ ░░░ ░░░░ (Ansafone during the day). Alternatively you can Fax. your order to ░░░ ░░░ ░░░░ or write to the PO Box. If you use comms you can leave orders on TABBS addressed to the SYSOP or contact us on AppleLink (BASUG.1).

If you are experiencing problems with Apple hardware or software Dave Ward and John Arnold run the Hotlines and they will try to help you.

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

We reserve the right to publish, without prejudice, any advice or comments given to members as a result of letters received, in the journals of Apple2000.

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

Contact Points

Chairman's Corner

Apple2000 1980-1990

MacUser Show

The 1990 MacUser show is now over and we warmly welcome all those new members who joined us at the show. We would also like to thank all the members who gave up their valuable time to help man the stand over the four days, and to all those members who made an effort to come and say hello to us. We may not have had time to speak properly with you, but I am sure you understand the pressure of the show. Our special thanks go once again to Derek Church for putting up a custom stand for us.

For those of us who are seasoned show people, this year's show was an odd affair. Apple did not have a stand at the show. Curious when you think of the momentous launch of the new computers only a few weeks ago. Perhaps they were caught out by the timing of the announcements and did not have time to book a stand! They did however support a 'hands-on' area for people to get to know the new machines that were shown, but only one Macintosh LC was espied at Olympia even then.

We found that many callers at the Apple2000 stand were thinking about which machine they should get, and so we were able to help them thread their way through the bewildering talk from the dealers and make a more considered choice.

Our congratulations go to all those who won a bottle of champagne as a result of our business card draw, and to the member who won the copy of SuperCard in the new members' draw.

Macintosh Hotline

Tony Dart, who has been running our Macintosh Hotline for the last two years, has been forced to give this up through pressure of work. Our grateful thanks go to Tony for his stalwart efforts over that time and wish him well with his ever growing business.

John Arnold has agreed to take on the rôle of the Macintosh Hotline co-ordinator. We are waiting for British Telecom to provide a new 'phone line, so please contact John via 051 928 4142 in the short term.

The Hotline will always attempt to answer your problems directly, but if this cannot be achieved, we will direct you on to a suitable contact amongst the membership. For the full potential of this scheme to work, we need to have a list of experts who we can call upon.

We do have a small list at the moment, but we need to build this up to include specialists in as many areas as possible. It is you, the members, who make up the Apple 2000 community—it is from amongst you that we draw our experts.

If you are willing to add your name to our growing specialist list, we should like to hear from you. Please write to 'The Macintosh Hotline' C/O P.O. Box 3, Liverpool, L21 8PY. Please give your name, your 'phone number, the times you are available, and your specialist subject.

Special Interest Groups

With the increasing complexity of software and hardware, and the wide range of applications now available, there is a growing need to have our Special Interest Groups more clearly identified and better organised. Therefore, we also need volunteers on this front.

We need to add names to the growing list on the first page of the magazine. These will be people who are willing to co-ordinate interest in a particular subject area. We can offer you space in the magazine to keep members informed of what is going on, and we shall (of course) add you to the Hotline list as well.

I have often asked in the past for volunteers in this way. The group is primarily a self-help group and it relies on the efforts and goodwill of the membership to survive. This is our strength.

The committee co-ordinate all these efforts, but it is increasingly difficult to provide all the services that are needed by our members. We need **your** help, as well!

Ewen Wannop

The Editorial team is:

|	
Apple II	Ewen Wannop
Macintosh	Norah Arnold, Irene Flaxman
Reviews	Elizabeth Littlewood

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 go to Val Evans for designing our front cover, and to Walter Lewis of Old Roan Press (051-227-4818) for our printing service.

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

Letter Box
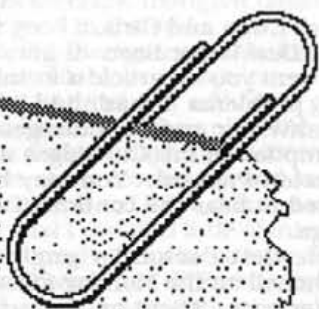
Stonegrove
Edgware

Dear Editor,

Terry Morris asks how to change the chessboard character [CHR$(127)], to the Mouse character for a carriage return. He does not make it clear which version of AppleWorks he is using. The patch he describes for the $ to # change in the spreadsheet is not the correct location for AppleWorks 3.0 (where it is $6A6, not $0A6), for the string he quotes. It may be therefore that he is using an earlier version, than 3.0

For AppleWorks 3.0 the simplest way of making the change and make several other patches is to use the AW 3.0 Companion, published by Beagle. The changes are extremely simple to make and to cancel.

However if this program is not available, AppleWorks Forum, the publication of the National AppleWorks User Group, has published a series of patches for version 3.0 by John Link of Western Michigan University, and the developer of the 'Superpatch' program and an AppleWorks consultant.

These include a change to the overstrike cursor and changing the carriage return checker character, and it is necessary for correct working to install both patches together. If this is not done the carriage return character will alternate with the inverse capital letter corresponding to the mousetext, when the overstrike cursor is on the carriage return.

Change the overstrike cursor

1. Select the character from the Mousetext characters, using the low ASCII value equivalent. (eg solid apple = 64).

2. Insert the AppleWorks system disk with APLWORKS.SYSTEM in Drive 1.

3. Type following, using the character value you have chosen to substitute for the 'x' in the poke to 769.

POKE 768,169
POKE 769,x
POKE 770,76
POKE 771,119
POKE 772,28
BSAVE APLWORKS.SYSTEM,TSYS,
A$300,L5,B$C61

To cancel the patch and restore AppleWorks to its original condition, type the following

POKE 768,173
POKE 769,245
POKE 770,16
POKE 771,41
POKE 772,127
BSAVE APLWORKS.SYSTEM,TSYS,
A$300,L5,B$C61

Change the Return character

1. Select the mousetext character and use the high ASCII value associated with the character. E.g the 'bent arrow' carriage return symbol is 205.

2. Insert the AppleWorks system disk with SEG.AW in Drive 1.

3. Type the following with the 'x' replaced with the high ASCII of the character chosen.

POKE 768,x
BSAVE SEG.AW,TBIN,A$300,
L1,B9389

To cancel patch
POKE 768,127
BSAVE SEG.AW,TBIN,A$300,
L1,B9389

My own copy of AppleWorks has the 'bent arrow' as a carriage return, along with several other changes, all made with the AW Companion. The only problem with the carriage return change is that the mousetext characters are not highlighted for delete strings - not a serious worry.

Just to refer to another query in letter box, from A McElhatton of Malta. One of his many(!) problems was with PublishIt! v1.4. This has, of course been replaced with v3.0, which I use on an //c, with 512K RAM. Although my own monitor and printer are black and white and I cannot therefore use any colour, I can confirm that the manual of version 3.0 also says that the black and white double HiRes screen is used

for display, colour is only available in the print outs. I can also confirm that PublishIt! is capable of giving excellent results.

Harvey Nyman

Scunthorpe

Dear Ewen,

I recently had the opportunity to acquire a mouse for my Apple //e, and, despite the fact that Apple introduced it in, I believe nineteen eighty four, there seems to be a shortage of inexpensive programs for it available in this country.

It therefore occurred to me that, given the right guidelines, it should be possible for interested members to modify their programs to operate with a mouse. Can we, through the magazine, ask one of our more skillful members to help in creating the necessary guidelines for us? Possibly a step by step approach, hands on, as non-technical as possible? Even as a minority subject, I think it may be of interest to non-mousers.

Harry Markham

❑ I think the reason that there are not so many programs for the mouse is simply there were never that many mice around for the II. The mouse and card for the Apple II were always expensive as they used the Macintosh mouse.

You will find that quite a lot of authors support the mouse in addition to the normal keyboard. However they rarely use a full desktop environment or a program that can only work with the mouse. The exception of course are all the drawing programs, which since 1984 have supported the mouse in addition to the joystick, paddles or keyboard.

Certainly we should have greater support. It would be nice to see a patch that would allow the mouse to be used with existing programs as well as guidelines for general use.

Come on all of you, get your keyboards working ...

Ewen Wannop

Academia Britanica Cuscatleca
Apartado Postal 121
Santa Tecia
El Salvador
Central America
Fax: 282956

Dear Dave,

I am encountering problems with one aspect of Turbo Pascal V. 3.0 which is hindering progress with one

of our education courses.

I wrote to Borland International explaining the problem, but they were unable to help me.

The problem is that I am unable to print Input/Output of a program run on any of our printers.

Our system is:

Apple //e 128k micros equipped with Z80 CP/M card, ImageWriter II dot-matrix printers
The Turbo Pascal disk has been set up with the following system:
Apple II CP/AM
60K V5.1.1
(C) APPLIED ENGINEERING

I have tried putting the compiler directive $P128 at the top of the programs (P.367 Turbo Pascal manual), thus:

(*$P128*)

PROGRAM ....

but to no avail. The LST commands work, but I don't wish to have to add these lines to my programs and I would like to have the data input echoed on the printer as well as the results. I would also like to maintain the screen formatting on the hardcopy.

Chris Pugh (Head of Computer Studies)

❏ We have tried to find the answer for Chris, but so far we have not come up with anything.

If any member who has any experience with Turbo Pascal or with his version of CP/M can help, can they please get in touch with Chris directly.

I know that there used to be some problems with using certain printers and printer cards with CP/M, but do not remember having had problems with the serial ports before. **Ed** ◆

Bideford
Devon

Dear Ewen and Girls,
The DeskWriter Saga

I sent you an article a fortnight ago on problems I had had with the DeskWriter and its' outrageous consumption of Ink Cartridges and with Hewlett-Packard. You may be interested to hear the continuation of the saga.

Hewlett-Packard's engineer telephoned on the Monday following my letter to you, 3 Sept, and he was advised that I would be absent from 12 to 3 pm and there would be nobody to admit him. He turned up at 12.40. He finally did make it next day, and did a 10 minute modification to the DeskWriter. He said that the pad at the resting position of the cartridge to absorb excess ink off the printing face, absorbed all the ink from the cartridge as soon as the machine was used.

I noted that the modification kit had obviously been designed for a DIY job by customers, with an elaborately illustrated step by step guide, and that the covering letter to the customer was dated 27 October 1989, well **before** my purchase.

I wrote to H-P asking:-

Why unmodified machines were sold after the date of the Retrospective Modification?

If the Modification kits were unavailable at the time of the sales, why were they not provided automatically to customers who had registered their machines?

What recompense they were prepared to offer for the waste of £159.66 worth of cartridges because of their faulty design?

H-P have just replied with the usual

soporific letter (standard letter number 3, Susan, with the usual mail-merge) and have ignored my questions.
John Stanier FACI ◆

Bideford
Devon

Dear Ewen and Girls,
Follows a little article on my experiences on CompuServe, which may be of interest to Apple 2000 members.

To CompuServe or Not to CompuServe.

When Apple 2000 advertised the cheap(ish) offer to become a member of CompuServe, and at the same time I heard that The Force was closing down, members being transferred on request to Telecom Gold's Club section - from which no doubt British Telecom will soon price them out - I took up the offer and applied for CompuServe membership.

The first snag I found was the sheer difficulty in getting a circuit to CompuServe.. One of the penalties of living "out in the sticks" is that the nearest access node for Telecom Gold and Istel (for CompuServe) is Exeter which at 60 miles distant is hardly a local call. In fact it's a trunk call at the highest (b) rate. Node access for Telecom Gold is successful in 90% of tries, but Istel is very elusive and only 5% of tries are successful, 95% of calls returning "No Carrier". Unfortunately, so far as the telephone system is concerned, each call to Istel is successful, for ringing tone is replaced by modem tones and one call is booked on your telephone bill. So, each connection to Istel has so far cost me no less than 20 trunk calls before the actual connect

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charges even start.

It so happened that I was unable to make my initial use of CompuServe for about a month after I had formally agreed to the conditions, via the modem. It was then that I found that I had been signed up as an Executive member despite my refusal of that (expensive) status at my signing-up session. I promptly cancelled the option - I have no call whatever for an Institutional Broker's service, or for a weekly update of the anticipated earnings of 3800 companies, or for any of the trimmings of the Executive option, and I took a poor view of CompuServe putting me to the extra expense of the Executive option against my expressed wish.

A look through the glossy literature revealed a strong recommendation to get hold of one of the Automated Programs to facilitate getting around the system, and the Mac program, CompuServe Navigator could be obtained by ordering Online (GO ORDER). I tried, working my way through CompuServe's intricacies, only to have my order refused - "Membership range not recognised".

Perhaps it took time for the membership details to filter through the system, so I tried again next day, and again the next day, with exactly the same result. I desperation I left a message outlining my problem with the Feedback box. A couple of days later, I got a reply to the effect that they were sorry, but the European version of Navigator had been withdrawn for revision, which I assume was computerspeak for "the d—d program didn't work". The Computer had been quite correct to refuse my order, for the membership number would have revealed me as a European customer and hence out of the range for the U.S.A. version, but wouldn't it have been nice to have had that explained.

Then I thought I would try the Mac Group forum and called GO MAUG. and up came the MAUG menu. Did I want guidance? Yes. Out it came, sixtyfive pages gushing out, unstoppable. Every "I" dotted, and every "T: crossed. Instructions for a five year-old moron.

I never did get on the forum. It didn't seem worth the effort.

I regret that I found the news service rather pathetic. There is a version Euronews, but even in that there seems little of relevance to the European scene. Of course, it's possible to read the many newspapers and I'm sure that the Hawaiian Times or the Alaskan Gazette might make fascinating reading. There isn't a single newspaper from outside the U.S.A. It must be a very expensive pastime to read the newspapers via an Istel link.

The facility of calling for a particular topic or item of interest seems to work excellently. I quickly learnt to use it to cut through the thicket of menus, sub-menus and sub-sub-menus when I was trying to order the Navigator pro-

gram. FIND NAVIGATOR brought me right to the correct menu within a couple of seconds, though it didn't do me any good in the end.

Exploring the innumerable forums and files available on the system would take a lot of time, and without a generous (or unknowing) employer to pay my costs, the vast majority will continue to be out of my reach. By and large, CompuServe is so U.S.A. orientated at present that I can find little of interest for me, though a business customer might well come to a different conclusion. And someday, someone might use my MailBox.

John Stanier FACI

❏ Comms is always a bit of a jungle. To access any new system you will have to go through a high learning curve while you get used to the way it works, the things not to do, and the actual routes or paths that are easiest to follow.

CompuServe is no exception, but compared with Telecom Gold it is a joy to use. John has had an unfortunate experience, but judging by the many members now exploring and appreciating CIS he is the exception.

One of the pitfalls of the free membership that Apple2000 members enjoy is of course that they do not get a full instruction manual. Without this, you need to download the Help pages so you know how the system works. You can of course order the manual later when online. The Help pages do tend to gush down at you when you least expect it, but they do not cost you CompuServe time while they do. To stop anything from gushing at you, you send the magic Control keys. 'O' cancels the flow, 'C' cancels an operation and 'S' and 'Q' pause and start any flow. Remember there will be a delay while your command gets to the States and back again.

John has had problems with Istel. We have all had these problems, dropped lines, unable to access CIS etc. For this reason, CompuServe have changed to the Telecom DialPlus system (See November Slices) and you should use this from now on. There is no change to the charging structure. However, there will still be parts of the UK where it will not be a local call to dial up DialPlus. We can only beat at Telecom's door over that one.

John mentions CompuServe Navigator, this is not yet available as he mentions for Europe, but Compuserve Information Manager is. This program I have had the pleasure of using. It is a joy to just browse around familiar Macintosh windows rather than deal with abstract commands on a text screen.

CompuServe is enormous. For this reason it can appear unfriendly at first. John's command GO MAUG should have brought up a menu with various Forums listed. A simple choice at that point would take him to one of the many Mac forums available. If you

are presented with an enigmatic prompt, pressing Return usually shows you the actual menu for you to choose from. Once you get proficient at knowing where you want to go, simple key strokes get you there very quickly. At most points in the system you can type ahead if you know the choices you wish to make.

I feel John's experience is not typical. I would be interested to hear from some of those listed below how they have got on with the system. It would be especially interesting for beginners to know which computer you use, which comms packages you have tried, why you chose the one you have finally settled upon, and members I am sure would especially like to here about the unusual things you have managed to find while roaming the vast expanse of Compuserve.

Ewen Wannop

Compuserve®

❏ We asked you to send us your Compuserve/Forum ID's. We now have some more added to our collection and these are printed below. There are still some of you that have not responded. We cannot contact you online unless we know who you are. Please send us your ID's either to the Apple2000 ID 76004,3333 or to the PO Box in Liverpool or of course to the Sysop of TABBS.

Apple2000	76004,3333
John Beattie	100012,360
Gary Doades	100016,2353
Felim Doyle	100016,1151
Mateen Greenaway	100016,602
Dale James	100016,1152
Bryn Jones	71307,1457
Peter Kemp	100016,1172
Elizabeth Littlewood	100016,401
Mark O'Neill	100016,476
Jeremy Quinn	100016,560
John Richey	10006,1037
Russell Ridout	72007,211
Arthur Robinson	73457,3614
James Southward	73767,1336
Andreas Wennborg	100012,342
Ewen Wannop	76224,211

AppleLink™

❏ Many of you will already be members of AppleLink™ and others may be thinking of joining. For simple E-Mail it cannot be beaten. It will also keep you up to the minute with what is happening at Apple headquarters. We would like you to send us your contact ID's to add to this list.

Apple2000	BASUG.1
Herts User Group	NA.HERTSUG
Liverpool Group	LIVERPOOL.UG

Apple-pie Order

Rules of Engagement

The first correct entry drawn from the postbag wins first prize. Please remember to indicate which of the two prize choices you would like.

Only entries from current members of Apple2000 will be eligible.

No member of the committee or the editorial team may enter.

Our decision will be final.

Only entries received in the PO box in Liverpool before the 31st of January will be deemed eligible.

How to Contact You

Name: ....

Membership Number: ....

Address: ....

....

....

Post your completed entry to:

December Competition,
PO Box 3,
Liverpool,
L21 8PY.

Choose Your Prize

If you were to win first prize, please indicate which prize you would like. Certificate Maker for the Apple II or Early Games for Young Children for the Macintosh.

Please tick your choice:

☐ Certificate Maker and Library

☐ Early Games for Young Children

Computer Logic?   by Doodlewit

There were five friends who had different computer systems and software and each was having a problem with their set-up. From the clues below can you determine the hardware, software and problem of each of the friends.

	Pear	Sugar	Big Blue	Orange	Ancom	Calcit	Venture	Comms	Scriber	Graphologist	Virus	Connections	Colours Off	Garbling	No Input
Abel															
Cable															
Fable															
Mabel															
Table															
Virus															
Connections															
Colours Off															
Garbling															
No Input															
Calcit															
Venture															
Comms															
Scriber															
Graphologist															

Name	H/W	S/W	Fault

1. The person who uses Calcit, who is not Abel, did not have any trouble with Input.
2. Mabel, who owns the Ancom does not use Scriber nor have problems with connections or acceptance of Input.
3. Cable would love the adventure game, Venture, because of its clear colours if it wasn't for the problem he has, which is not on an Orange.
4. Table was having problems with frequently garbled messages.
5. Big Blue's software starts with a big C.
6. The Scriber does not have off colours, which appear on the Pear machine, which is neither owned by Fable, who doesn't use Scriber, nor the person who has Graphologist.

Apple2000 prize competition

AppleXtras

/XTRAS.P8.NO.6/

```
/XTRAS.P8.NO.6/
  =AUTO10.EXE      TXT      38   19-OCT-90
  =A2FX.BXY        $E0      37   24-JUN-90
  =P819.SHK        $E0      31   23-SEP-90
  =BASIC141.SHK    $E0      21   23-SEP-90
  =MGPDUTIL.SHK    $E0      56   6-OCT-90
  =PP.SHK          $E0      77   16-OCT-90
  =PCTFIX.BXY      TXT       8   27-JUL-90
```

/XTRAS.GS.NO.6/

```
/XTRAS.GS.NO.6/
  =BOOT.SYSTEM     SYS       1   6-JAN-90
  =TITLE           $C1      65   27-OCT-90
  =PRODOS          SYS      32   8-JUL-88
  =PROGRAMS        DIR       1   27-OCT-90
    =CUSTOMRZ.SHK    $E0     72   12-SEP-90
    =ZZCOPY.SHK      $E0    235   24-SEP-90
    =SBOOT.BXY       BIN     62   23-OCT-90
    =DESK.ACCS       DIR      1   27-OCT-90
      =FONTDA.BXY      $E0    48   27-MAY-90
      =NIFTY3.BXY      $E0   210   31-JUL-90
      =TFFBAS.SHK      $E0    28   23-SEP-90
      =UWILIGHT.SHK    $E0   123   24-SEP-90
      =SHOWPIC.SHK     $E0    42   27-OCT-90
  =UTILITIES       DIR       1   27-OCT-90
    =LIST021.DOC     TXT     86   24-JUL-90
    =LIST.CONFIG     BIN      1   19-AUG-90
    =LIST.SYSTEM     SYS     74   24-JUL-90
    =LIST.LAUNCH     SYS      3   13-JUL-90
  =GRAPHICS        DIR       1   27-OCT-90
    =GF3200.SHK      $E0     36   2-OCT-90
    =DTPAINTER.SHK   $E0    105   27-OCT-90
    =FONTS           DIR      1   27-OCT-90
      =CLAIRVAUX.10    $C8     7   27-OCT-88
      =CLAIRVAUX.12    $C8     8   27-OCT-88
      =CLAIRVAUX.14    $C8     9   27-OCT-88
      =CLAIRVAUX.18    $C8    13   27-OCT-88
      =CLAIRVAUX.20    $C8    15   27-OCT-88
      =CLAIRVAUX.24    $C8    20   27-OCT-88
      =CLAIRVAUX.28    $C8    25   27-OCT-88
      =CLAIRVAUX.36    $C8    44   27-OCT-88
      =CLAIRVAUX.40    $C8    49   27-OCT-88
    =WALL.ST.FONTS   DIR      1   27-OCT-90
      =WALL.ST.9       $C8     5   5-NOV-87
      =WALL.ST.10      $C8     5   5-NOV-87
      =WALL.ST.12      $C8     6   5-NOV-87
      =WALL.ST.14      $C8     8   5-NOV-87
      =WALL.ST.18      $C8    10   5-NOV-87
      =WALL.ST.20      $C8    11   5-NOV-87
      =WALL.ST.24      $C8    15   5-NOV-87
      =WALL.ST.28      $C8    19   5-NOV-87
      =WALL.ST.36      $C8    28   5-NOV-87
      =WALL.ST.48      $C8    45   5-NOV-87
```

❏ We make no apologies for including yet another version of ShrinkIt on the P8 disk. Andy Nicholas continues to develop this excellent program.

This new version for the II, //e and //c is an auto-extracting program that will unpack the new style files that ShrinkIt GS prepares. You should no longer have any problem with vanishing filenames!

The new ProDOS 8 and Basic files on the P8 disk will not work with GS/OS version 5.0.2.

/XTRAS.P8.NO.6/

AUTO10.EXE
Exec this file from Basic to produce an easy to use UnShrink program that will handle the new archives.

A2FX.BXY
This program will allow you to read the resources from a Macintosh 3.5 disk and save them to disk.

P819.SHK
ProDOS 8 V 1.9 from the new ProDOS System disk.

BASIC141.SHK
Basic 1.41 from the new ProDOS System disk. Note these will not work with GS/OS system 5.0.2.

MGPDUTIL.SHK
Home brewed utilities for DOS 3.3 from one of our own members! Complete with assembly source files.

PP.SHK
An excellent program selector and utilities package for the enhanced //e or //c. This program has been written by one of our own friends from Sweden!

PCTFIX.BXY
Patches your PC Transporter files to allow IBM comms programs to run properly.

/XTRAS.GS.NO.6/

Programs Directory

CUSTOMRZ.SHK
This program allows you to create custom resources from your data files. Makes it easy to use resources from within your existing program formats.

ZZCOPY.SHK
A copy program to end all copy programs! Has to be seen to be believed! Another wonder from those French GS whizz kids.

SBOOT.BXY
Handy utility that waits for a SCSI drive to be ready for booting. Handy for all those drives that are reluctant to start up.

Desk Accessory Directory

FONTDA.BXY
The IIgs answer to Suitcase on the Mac. Allows you to install fonts, NDA's and CDA's on the fly. Excellent for checking out a DA before you place it into the DESK.ACCS folder.

NIFTY3.BXY
NiftyList Version 3.0, the perfect memory peeker! Revised to handle all recent Tool calls.

TFFBAS.SHK
CDA converts numbers from and to: Binary/Decimal/Octal/Hexadecimal.

UWILIGHT.SHK
Comprehensive Screen fader system. Comes with a selection of modules and details of how to write your own.

SHOWPIC.SHK
ShowPic NDA V4.7 displays standard Pic files.

Utilities Directory

LIST.SYSTEM
Version 2.1 of the excellent List and file display program. Updated to cater for the latest types of files.

Graphics Directory

GF3200.SHK
Converts Graphic Interchange Format (GIF) picture files into 32000 colour GS screens. These picture files can be found on CompuServe and other sources.

DTPAINTER.SHK
D.T. Painter V1.1, a complete paint package in a NDA. Works with standard picture files in both compressed and un-compressed format.

FONTS
Clairvaux and Wall Street fonts for use with GS/OS and P8 text programs.

Disk Zaps and all that (part 3)

Recovering from disaster - Ewen Wannop brings us the next thrilling episode in his series of articles

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

Examining the Evidence

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

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

Read Those Text Files

Text files are the simplest. They consist of ASCII characters with the hi-bit set, and unless they are random access files, are simply sequential entries delimited by a carriage return, $8D. The end of file marker is denoted by the first occurrence of a zero byte. This may not be the last sector pointed to by the track/sector list, as DOS does not update the disc map if a file is subse-

quently written out to a shorter length. If the file is a random access file, then each record will finish with a carriage return as before, but there may be one or more zero bytes before the next record. In a random access file, you must look at all allocated sectors to see the full list of records. It is possible to have some records that are zeroed out completely.

Basic Rules OK

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

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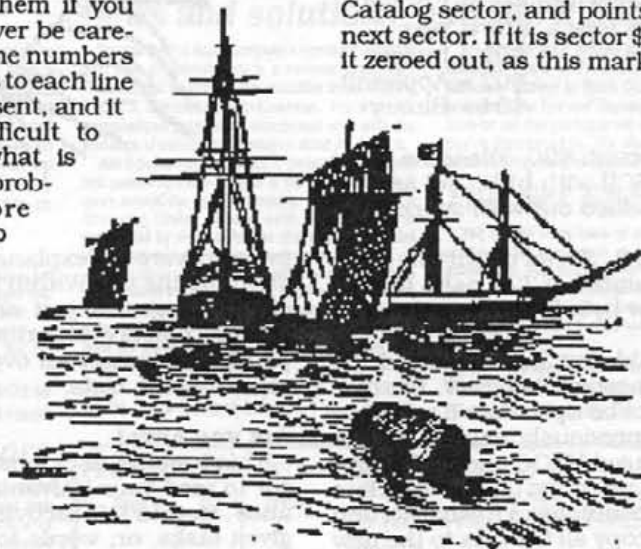
And the Animals went in Two by Two

Binary files are the last type of file. The first four bytes of the first sector are significant. The first two are the address the file was saved from and will be loaded to, and the second pair are the length of the saved file. In both cases, as is normal in machine code data, the first byte encountered is the low or least significant byte. You may change the load address and make the file load somewhere else, though be wary, as if the file is a binary program, the file may not run at a new address if absolute addresses are referred to. A binary file can of course be both a program, or data, and can consist of data using all eight bits of the byte.

Now to restoring a damaged Catalog track. This is the most frequent cause of an apparently destroyed disc, and will cause the dreaded I/O ERROR on any form of disc access. You will have been unable to back-up this type of damaged disc with the normal COPYA, but if you type in my version of COPYA as printed in the April issue of Hardcore, you will be able to copy tracks $0-$10 and $12-$22 to a blank disc. Copy $12-$22 first, with initialisation, and then $0-$10 without. Next copy using the Patch option of Disk Manager, all the sectors that you are able to read. There will have been at least one sector that was unreadable.

Getting out the Elastoplast

Depending on which sector is damaged you will need to correct as follows. If it is a sector higher than $1, then enter at offset $1 the value $11 and offset $2 the value of the next lower sector number. This marks the sector with the track/sector pair of the next Catalog sector, and points DOS to the next sector. If it is sector $1 then leave it zeroed out, as this marks the end of the Catalog sectors. If it is sector $0, then you have a destroyed VTOC (Volume Table of Contents). It is beyond the scope of this article to describe the reconstruction of the disc map which is part of the VTOC sector, but we can restore the sector sufficiently so we can read the files. You must enter at offset $1 the value of $11, at offset $2 the value $0F, these are the pointers to the first sector of the Catalog. At offset $3 the value $04, the DOS release number. At offset $27 the value $7A, the maximum number of

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

Having followed through all this, you will have restored the Catalog track to a readable form, and the disc to apparently normal. However there will probably be one or more files that have been 'lost' together with their Catalog entries. You should now scan the disc with the FIND T/S SECTORS option, and make a note of all the lists found. Catalog the disc and make a note of all the T/S lists mentioned there. Eliminate all the found lists with those that already occur in the Catalog, and look at those that remain with FILE T/S LIST. If they seem to be valid lists, examine the first sector of each file pointed to, to see if you can recognise the file, or determine what type of file it is. Having done all this, and now covered sheets of paper with all your scribbles and all the data for the 'lost' files, we are ready to reconstruct the file entries.

Browsing the Catalog

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

Each entry is laid out in the following manner:

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

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

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

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

Next issue, I will leave DOS 3.3 and describe the layout of a ProDOS disc. Later on I will look at PASCAL and CP/M discs.
Ewen Wannop ¢

Good zapping .....

Heart Stopping Stress Test!!

Calmpute from Thought Technologies
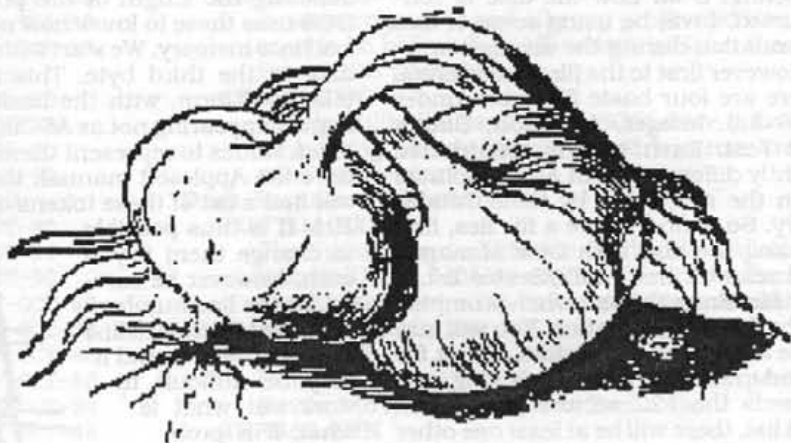## reviewed by Adrian Campbell-Burt

Calmpute for all Apple II's is a program that helps in the monitoring of stress. The package contains the biosensor, two manuals and a 5 1/4 disc. A battery is required for the sensor. The sensor is connected to the games port on your machine. My stress level increased violently when I received the package for review. More of that later.

There are five tests provided in the program, muscle tension, reaction time, most/least favourite and word association test, a fifth test is in the form of a "Basic" car driving simulation, "basic" being the operative word. These

programs are self explanatory and just about do the job. Within the structure of the programs you are supposed, through practice, to find out your stress points and lower your overall levels by repeating the tests.

Are you alive!

This package uses a hand-held sensor to read your 'galvanic skin resistance', ie. your GSR activity level. When given tasks, or, words to concentrate on, your nervous system reacts with changes to pore size and sweat gland activity. These minute changes are read by the sensor and the accompanying program displays the info on several different types of graph, bar and line, in report format. CalmScope and CalmBar display information on a moving graph thus reacting to your state of mind. CAREFUL!

You can print the results of your tests to keep a record of achievements.

Nitty Gritty......

Initially the sensor was faulty. It turned out that a variable resistor had been damaged and this was due to a design fault. Once I had replaced it I was able to run the programs. Some of the programs require you to calm yourself for 60 seconds, the time is displayed on screen, it flashes through in about 20. Now my machine is a IIGS, so I switched the system speed to slow, no difference. Not exactly condusive to lowering ones stress levels.

Printing within the program is a dead ringer for heart failure, as you have to press the P key then the arrow key to send the screen to the printer while you are being "sensored", this within the CalmScope and CalmBar programs.

It was quite amusing to run the CalmScope and think "thoughts", viewing the reaction a second or so later!!!

Conclusion

While the programs could be of some benefit I feel that you could do better buying a book , and/or a sensor for half the price. The real stress, that would turn your toes up, is the price, £99.00. AAAAAAHHHHHGGGGG!..

Adrian Campbell-Burt ¢

Charlie Brown's ABC

Adrian Campbell-Burt learns his ABC from the beginning

Charlie Brown's ABC is a program for our younger Hackers, enabling them to come to terms with the alphabet.

Daddy's bit

This program is Apple IIGS specific, requirements are 1 meg. Ram, at least one 3 1/2 drive, colour monitor and preferably an ImageWriter II. Discs can be copied, thus allowing you to setup the system, ie. the childs name within the program.

Introducing......

The program starts with an introduction by Charlie Brown, his animated graphic and voice. The graphics and sound of this program are really great. Both sons, Andrew and Jamie (aged 5 1/2 & 3 1/2), find the program great fun, the good thing is they are **learning** while having fun. Charlie Brown's voice is used throughout for letter and word pronunciation. After completing a test they can have a certificate printed in colour, this is one of the graphics with their name printed on it. Printouts can be obtained at any time with Open-Apple-P.

The Lollipop Test

The tests are in the form of a typed key response to the letter Charlie says. They are as follows, First ABC's, Game A, Game B and Game C. In most cases this works fine, but there are one or two that do need careful listening to.

The progression of the tests takes you through from a request for a letter to the first letter of a word. This starts the child off with letter recognition from screen to keyboard, upper and lower case. The later "games" stretch the mind with the addition of a word and letter and finally just a word pronounced requiring a letter from the keyboard in response. Except for the last game, following a correct reply the "hacker" is rewarded with Charlie, Lucy and/or Snoopy etc. in animation; in the last game Charlie and All celebrate the correct answer.

It Works!

A winning combination of teaching, sound and graphics. I think all children (Peanut fans included) will have a great time with this program. Simple key presses take the child through the tests, printing will require Mum or Dad's help, but either should be there with young ones anyway.

At £29.95 from MGA it is great value!!

Adrian Campbell-Burt

Battle Chess

Doodlewit takes on the forces of evil on the chessboard ...

This program for the Apple IIGS, from Interplay Productions, comes in a box which contains a single 3.5 inch disc and a slim manual and reference card. The slim manual is basically an introduction to chess - showing you the moves and the notation used in writing them down for posterity. It also includes twenty historical games which can be an education in themselves once one has learned to play chess. The program is primarily for beginners and recreational players.

Facing the Enemy

The game boots up and after the logo screen presents the board set up for start of play. The view of the board and players is in 3-D with the players being red and blue rather than white and black. The board itself being marbled green/black. Before you can actually play though a window appears asking you to put in a particular white or black move from a randomly selected historical game. It does only select from the games that are in the slim manual though! So you look up the move and type it in exactly as written and press return. Occasionally it asks for a second move. The randomly selected move provides a small amount of protection as the disc is not copy protected. Having input the correct move you are now ready to play the computer. The default is human plays white (red) with the computer playing black (blue).

There is a hidden menu bar which can be seen by holding the mouse button down while pointing to the top of the screen. The options besides quitting, starting a new game, etc. allow you to set up the board for particular positions (useful for problems or setting up games partway through). You can also save and load game positions if you are unable to finish a game. You can also switch from 3-D to 2-D and vice versa, decide who plays which colour, ask for suggested moves, take a move back and switch the sound off (although that loses some of the charm of Battle Chess).

Drop Down Menus

The other drop down menu is to decide at what level the computer is to play. There are ten such levels. The first four are novice levels (1-4) and the last six player levels (1-6). The difference between novice and player levels is that at the novice level the computer may from time to time make an injudicious move. The difference between levels is the amount of time that the computer is allowed to 'think' before he has to make a move. At level 1 he is allowed 5 seconds and this is doubled for each successive level; therefore at player level 6 the computer can be thinking for 2 minutes 40 seconds before being obliged to move. There is also an option to set your own time limit but I never tried it as, being a recreational player, I think 2 minutes 40 seconds is too long. If you are getting fed up with waiting you can force the computer to move through an option from the menus.

The final option that should be mentioned is that you can play remotely with another Apple IIGS providing they have a copy of the program and you both have modems. This option was not tried of course.

Making the First Move

So on with the game. You make your move by pointing to the square of the piece you want to move and clicking and then pointing to the destination square and clicking. So P-K4 (the notation used in the manual), there is a delay while the computer sorts out the move then the pawn (in reality a foot-soldier) wakes up and moves to its appointed place with its armour making a suitable noise. The icon then converts to a copy of 'The Thinker' while the computer considers its move for up to the time allowed by the level you are operating at. The pieces have their own sounds when they move, including silence when the king glides along. The rook being an inanimate object gets transformed into a brick monster in order to be able to trample to its appointed place before once again becoming the familiar rook (or castle). Pieces move politely out of the way of the knight if required to do so; remember the knight is the only piece that can jump over other pieces.

When a piece is to be taken then the attacker moves on to the square in the usual way and confronts his/her/its opponent. There is a short battle between the two contestants which varies depending on who the combatants are and which one is destined to win. The losing combatant then disappears from the board. It is this animation which differentiates Battle Chess from other chess games that I've played. It may be distracting for purists but it does provide an entertaining aspect which could be useful in encouraging new players to persevere with the game. The animation only applies when playing in 3-D. In 2-D it plays in the conventional way and is therefore much faster with its moves although the thinking time will be the same. On occasion it is sometimes difficult to have a clear view of the situation when in 3-D but a quick flip to the 2-D view clarifies the position.

As a recreational player I found that level 4 (40 seconds thinking time) player level gave me a reasonable game; novice level 1 was no problem. However it is not a master player. I gave it some situations from a Sunday paper chess column and in no case out of five did it find the 'correct' move that the player had found and was highlighted as the critical move. Neither was it able to solve a mate in 4 problem presented to it although it did manage to solve a couple of mate in 2 problems. In all these cases I had it operating at player level 6.

However, the game does I believe satisfy what I would imagine its target audience to be. It is an excellent introductory program with the humour of combats to keep interest alive, particularly for youngsters, but it will provide a sufficiently challenging game for recreational and even, possibly, club players. There is of course the delay between putting in your move and the execution of the move but patience is a virtue that chess players (and others) should cultivate. The only other quibble possibly is the price - at £39.95 I think it is too expensive, a drop of ten pounds would make it good value.

Doodlewit

I am a Trans. I exist in a galaxy which is part of a vaster Universe. I was formed on unit Alpha about a second ago. The average life of a Trans is about two seconds although the effects they have may live through many generations.

We essentially act as couriers for the overseers who control our galaxy. The information we carry is an inherent part of our makeup.

As couriers we are sent on a journey to a place where we shall impart our information. Invariably we return back to our home unit with some other information for the Overseer of our home unit. As a courier I merely carry information and I am told what to do. When I am told, I do it. Ours not to reason why.

Whilst sitting in a queue, I thought I would write down my experiences. I had just been sent out from unit Alpha where I was born. For the trip I had some protocols to ensure my acceptance at my destination and a rear guard to verify that all my bits had arrived. I was on my way to Cassiopeia along with others of my kind.

The journey started with a perambulation down a thin corridor till we got to the local modulation station. Here we were transformed in order to travel on the high speed circuit to a station near Cassiopeia which was a fair distance away. This was exciting. When we reached our destination station we were transformed back to our original state and continued along another thin corridor to Cassiopeia.

Here my protocols made me acceptable to the local bureaucracy. Presumably my rear guard had reported all present and correct because I was sent to a pool to await further instructions. Cassiopeia was only a staging post. Very shortly I was sent on the remainder of my journey to Millecenta. On this part of the trip, those thin corridors again, I was accompanied by other Trans which had arrived at Cassiopeia from other parts of the galaxy.

Millecenta is the operational centre of the galaxy. It is to Millecenta that the Trans are sent with their information. Some never reach there.

It was when I had been accepted at Millecenta that a strange thing happened. I was duplicated! This was a new experience for me but quite painless. My alter-ego was sent to Audia.

This duplicating ability was quite a common occurrence. Even the Bureau itself was duplicated. But it was among the Datrecs that they turned it into a fine art. They even had a ceremony periodically when they all duplicated en masse and the duplicates were sent off to one of the Dumpia Colonies.

But the duplication was most noticeable when Trans and Datrecs interacted - not directly of course - only through the Bureau. If there was any hint that we were going to cause a shape-change to a Datrec it immediately duplicated twice. One duplicate went to Audia and the other to Quilofil. If we in fact did cause a shape-change it duplicated yet again - this time only once. This duplicate went to Audia. Because of this tendency to duplicate before and after a shape-change we called the duplicates B-Datrecs and A-Datrecs respectively. This was to try to avoid confusion.

The Datrecs tended to reside on peripheral units close to Millecenta and generally were extremely volatile. But having said that, they also had a very strict hierarchy and inter/intra family relationships when static. The volatility was because of the induced shape-changes caused by interaction with us Trans. We are individualists but we always ensure that Datrec order is not disturbed by our interactions. Possibly changed but order maintained.

We in fact were nearly as volatile as the Datrecs. But, we were only couriers whereas the Datrecs were recorders. They maintained the Overseers' historical record, which covered thousands of generations. So even though I might have changed I wasn't duplicated again after my initial entry.

Trans Life

After I became we, I was passed through the bureaucratic machine at Millecenta - occasionally interacting with Datrecs when permitted. Other times I would be in a pool or sitting in a queue. It wasn't all work at Millecenta.

The queues were well disciplined. You just waited your turn. No pushing or shoving. I'm sitting in a queue now waiting for a ....

...... that was a happening! Yes, I'm the alter-ego. Let me continue the story.

They don't occur very often but when it does the lives of some Trans and Datrecs are lost. However the most serious consequence of a happening is that the strict order of the Datrecs may disintegrate. Remedial action has to be taken.

The first thing the Overseers want done is to ensure that the Bureau is in good condition. If it is lost then the duplicate Bureau has to be initiated. Having done this they cut off communication between Trans and Datrecs. Divide and rule.

The Relief team is called in to ensure that any suspect Datrecs are replaced by known Datrecs who will remain in order. This is done by calling the B-Datrecs from Quilofil and commanding that they replace their alter-egos. Normally a B-Datrec on Quilofil is doomed - this is the only occasion when they survive. It is we Trans who doom the B-Datrecs we have caused; when we are sent home the Bureau destroys them. Who needs the duplicated ones, once the Datrecs we have interacted with are know to be in order?

However sometimes life is difficult. On this occasion all communications with Quilofil were hopeless. The Relief team couldn't reach it. They couldn't restore order so the Civil Guard was called in. Whilst order was being restored strong efforts were made to restore communications with Quilofil. The B-Datrecs from Quilofil were now also suspect and any there were destroyed.

The Civil Guard usually went to the latest Dumpia Colony and replaced all the current Datrecs with their earlier duplicates when order was known to be sound. Then a process of advancing history from this point back in time was used by calling all the A-Datrecs from Audia which had been sent since the ceremony to create the new Dumpia Colony. The duplicates were just reduplicated for this work. A duplicate had to remain in case further troubles ensued. The last stage was to look for those B-Datrecs on Audia which hadn't received their Eru. These were also recalled.

The Eru was something which all duplicates on Audia received when it was known that their alter-egos' interactions were complete and safe.

After these B-Datrecs had been recalled interactions were again permitted. The Civil Guard was therefore able to recall those Trans that hadn't yet received their Eru.

That was how I came to be active. Leaving another alter-ego in stasis on Audia. 'Back' in Millecenta I followed presumably the path my alter-ego had taken. Though I didn't necessarily have to wait in the same queues. And of course I went further because I'm now at my home unit.

I worked my way through the Bureau, interacting here and there until I was again duplicated. This was just before I was sent out on my homeward journey. I had been considerably changed by this time although I couldn't precisely say how.

The journey home via Cassiopeia was uneventful. The reverse of the journey you've already heard about although my passport was requested many times by the Bureaus. I suppose they needed to know where I was going.

It is here that I shall be disassembled so that my Overseer will get his information. But I won't be entirely dead. I have an alter-ego on Audia and my interactions will go down in history. The end of a long life - back home on unit Alpha. Well, it looks like unit Alpha.... I think it's unit Alpha.... was my passport changed by the Bureau...◀

Compusec

A review of a Portfolio Manager
by Dave Ferris

Introduction

With all the recent privatisations there are a lot more shareholders around these days. Even if you don't have the capital to play the Stock Market in a big way, you can do as some colleagues and I have done and form an Investment Club. This is run like a do-it-yourself Unit Trust, we all put a small amount of money into it on a regular basis and hold meetings to decide how to invest it. We wanted a Portfolio Management program, until recently a spreadsheet was used to summarise the information. When I saw Compusec was available to run on my Apple, I wanted to review it.

The Program

Compusec comes on a single 5.25" DOS3.3 disc in a binder with a 120 page manual. It will run on a 64K Apple][,][+, //e, //c or a //gs (or even a /// in emulation mode) with a single drive. A printer in slot-1 is useful.

The program is compatible across the wide range of machines by simply doing everything in 40 column, caps only mode.

The disc is not copy protected so a copy can be made for use as a combined program/data disc. The program disc must always be in drive 1 since the program, which is written in Applesoft Basic is segmented, loading a separate module for each main menu selection.

So What does the program do for me?

Unfortunately, not as much as the manual suggests. This is because the program is a US import, written for investors using the Dow-Jones system. As a result some of the facilities just aren't applicable. For instance gains and losses are split into short and long term, but for the benefit of, and according to US Tax Law.

What I think is the main selling point of the program in the States is completely unusable in the UK. In the US, I would be able to subscribe to a service that allows the program to dial up the Dow-Jones database via Tymnet and update the share values in any portfolio automatically. Obviously Dow-Jones figures aren't any good for in-

vestors on the UK Stock Exchange, and even if a similar facility was available in this country the use of US ticker tape codes to identify the shares would cause a problem. e.g. Apple Computer is identified as AAPL. This won't cause too much confusion to an American investor, the prices quoted in newspapers use this code also, but they are meaningless here, and the program only allows 5 characters maximum to identify a share.

What does that leave?

The program will:-

❏ Calculate, for any stock, the compound growth rate between Earnings per Share (EPS) over different time periods.

❏ Calculate payback period (years to earn back the market price), based on calculated or estimated growth.

❏ Shows unrealised Capital Gains and Losses with subtotals and also gives a statement of realised Capital Gains and Losses. Subtotals net CG/L for each security, even where different lots have been sold on different dates.

❏ Shows average Cost Per Share for total holding of each share as well as average CPS for each separate holding.

❏ Allows viewing or printing of all reports (printing only if you have a printer connected to slot 1)

❏ Provides for automatic adjustment of cash figure when

1) Purchases or sales of securities are made

2) Addition to, and withdrawals from cash are made

3) A mistake is made and a reversal of transactions has to be made

The Program Modules

When the program starts up it displays the Main Menu - See Figure 5.

After selecting each of the modules marked (*) you will have to enter a portfolio name, which under DOS3.3 can be quite long and have

spaces in it. Whenever a change has been made to the portfolio you may choose to throw the changes away or save them. Selecting return to main menu from a sub-menu without saving a changed file will warn you and request confirmation before discarding the updated information. The individual modules are described in more detail as follows:-

❏ Fetch Module

This module allows you to enter market prices manually (from a newspaper or similar source) either for individual shares or for all by entering the keyword CYCLE.

This module also has a menu selection for fetching quotes from Dow-Jones (hence the module name) but as previously mentioned this is not available.

Note: Prices must be entered in Pounds (or Dollars). Caution, the papers quote in pence below £10.

❏ Display Module

This allows you to view or print a summary of the portfolio status (see Fig 1). The unrealised capital gain or loss uses the current market price and takes no account of trading costs that would occur if a holding was sold. It also has menu selections to view or print quotes, but these are dependent upon the automatic fetch feature which would have given bid/ask, high/low market values and trading volume (no. of shares bought and sold) for each holding in the portfolio.

❏ Buy-Edit Module

This module is used when buying a new security or adding more shares to a current holding. It may also be used to delete a security from the portfolio and change the data for a specified security.

When buying new shares you must choose a unique 5 character (maximum) ident for it, which will be used to identify the holding in all future transactions. After the symbol, enter the number of shares, the purchase date and total cost. Note: the total cost is going to include trading costs.

❏ Sell-Edit Module

This module is used when selling a security, it also has menu options that allow you to view, print or update the

---

Figure 5

```
|-----------------------------------------------|
| FETCH MODULE ................. PRESS F  |  *
| DISPLAY MODULE ................PRESS D  |  *
| BUY-EDIT MODULE ..............PRESS B   |  *
| SELL-EDIT MODULE .............PRESS S   |  *
| ALL PORTFOLIOS - ONE SECURITY..PRESS A  |
| CREATE OR DUPLICATE MODULE ....PRESS C  |  *
| payback MODULE ...............PRESS P   |  *
| NEW PASSWORD/PHONE# MODULE ....PRESS N  |
|                                         |
|  ===>                                   |
|                                         |
|    PRESS OPTION THEN THE RETURN KEY     |
|   (PRESS THE ESC KEY TO END PROGRAM)    |
|-----------------------------------------------|
```

```
*** fig1.txt ***
HOLDINGS FOR:POPULAR                    STATUS AS OF        07/11/90 00:00 EASTERN
SYMBL UNITS PUR.DATE CST/UT TOT.COST  VOL. MKT/UT  TOT.MKT   GN<LS> TRM
ABNAT  100 06/27/90  2.07   207.00     0   2.12    212.00     5.00  S
BA     100 06/28/90  2.13   213.00     0   2.15    215.00     2.00  S
BGAS   100 06/28/90  2.23   223.00     0   2.24    224.00     1.00  S
BP     100 06/27/90  3.29   329.00     0   3.17    317.00   -12.00  S
BSTL   200 06/29/90  1.46   292.00     0   1.37    274.00   -18.00  S
BSTL   100 07/03/90  1.46   146.00     0   1.37    137.00    -9.00  S
SUBT       -------   1.46   438.00     0   1.37    411.00   -27.00
BT     100 06/29/90  3.01   301.00     0   3.07    307.00     6.00  S
SVTR   200 06/30/90  1.47   294.00     0   1.40    280.00   -14.00  S
TSB    200 06/30/90  1.39   278.00     0   1.36    272.00    -6.00  S
2CASH 7717 07/03/90  1.00  7717.00     0   1.00   7717.00     0.00  S
  9   8917  GR. TOTALS      10000.00              9755.00   -45.00
NO.   NO.
SYMBL UNITS !  SHORT TERM GAIN    14.00    LONG TERM GAIN    0.00
             !  SHORT TERM LOSS  -59.00    LONG TERM LOSS    0.00
             !  NET SHORT TERM   -45.00    NET LONG TERM     0.00
                                    Fig.1
```

```
*** fig2.txt ***
HOLDINGS FOR:POPULAR                    STATUS AS OF        08/15/90 00:00 EASTERN
SYMBL UNITS PUR.DATE CST/UT TOT.COST  VOL. MKT/UT  TOT.MKT   GN<LS> TRM
ABNAT  100 06/27/90  2.07   207.00     0   2.05    205.00    -2.00  S
ABNAT  200 07/12/90  2.14   428.00     0   2.05    410.00   -18.00  S
SUBT   300  -------  2.12   635.00     0   2.05    615.00   -20.00
BGAS   100 06/28/90  2.23   223.00     0   2.31    231.00     8.00  S
BGAS   200 07/12/90  2.26   452.00     0   2.31    462.00    10.00  S
SUBT   300  -------  2.25   675.00     0   2.31    693.00    18.00
BP     100 06/27/90  3.29   329.00     0   3.63    363.00    34.00  S
BP     500 07/23/90  3.36  1680.00     0   3.63   1815.00   135.00  S
BP     500 08/02/90  3.52  1760.00     0   3.63   1815.00    55.00  S
SUBT  1100  -------  3.43  3769.00     0   3.63   3993.00   224.00
BT     100 06/29/90  3.01   301.00     0   2.90    290.00   -11.00  S
TSB    200 06/30/90  1.39   278.00     0   1.31    262.00   -16.00  S
2CASH 4189 07/03/90  1.00  4189.00     0   1.00   4189.00     0.00  S
  6   6189  GR. TOTALS      9847.13             10042.13   195.00
NO.   NO.
SYMBL UNITS !  SHORT TERM GAIN   242.00    LONG TERM GAIN    0.00
             !  SHORT TERM LOSS  -47.00    LONG TERM LOSS    0.00
             !  NET SHORT TERM   195.00    NET LONG TERM     0.00
                                    Fig.2
```

```
*** fig3.txt ***
REALIZED CC&L FOR:POPULAR                        LAST SALE: 08/08/90
                    PURCHASE                 SALE                      GAIN  T
                                                                       OR    R
SYMBL UNITS! DATE  $/UNIT  COST  ! DATE  $/UNIT  PROCEEDS!            LOSS   M
BA     100 06/28/90  2.13  213.00!08/08/90 1.54  154.00!              -59.00 S
BSTL   200 06/29/90  1.46  292.00!07/12/90 1.34  267.42!              -24.58 S
BSTL   100 07/03/90  1.46  146.00!07/12/90 1.34  133.71!              -12.29 S
SUBT   300!  ---     1.46  438.00!  ---    1.34  401.13!              -36.87
SVTR   200 06/30/90  2.17  434.00!08/08/90 1.88  377.00!              -57.00 S
  3    600! GR. TOTALS     1085.00!              932.13!             -152.87
NO.   NO.
SYMBL SHRS !            SHORT TERM       LONG TERM
            GAIN            0.00            0.00
            LOSS         -152.87           0.00
            NET          -152.87           0.00
            COST         1085.00           0.00
            PROCEEDS      932.13           0.00
                                    Fig.3
```

```
*** fig4.txt ***
PAYBACK FOR:POPULAR                               MKT PRICES: 08/15/90 00:00 EASTERN
        EPS  N     EPS   EPS         P/E   GRTH  GRTH PYBCK PYBCK        IF SOLD,
       N YRS N QRTR LAST NEXT  MKT   NEXT  RATE  RATE YRS   YRS   STOP   SOLD
SYMBL   AGO YEARS ENDG 12 MO 12 MO  PRICE 12 MO  CALC  ESTD  CALC  ESTD  SELL   AT
ABNAT  NMF NMF ??  0.25 0.27  2.05  7.59  NMF  0.10  NMF 5.93  ---    ---
BA     NMF NMF ??  0.31 0.31  2.15 12.93  NMF  0.10  NMF 8.66  ---    ---
BGAS   NMF NMF ??  0.16 0.18  2.31 12.83  NMF  0.10  NMF 7.47  ---    1.37
BP     NMF NMF ??  0.33 0.35  3.63 10.37  NMF  0.10  NMF 7.47  ---    ---
BSTL   NMF NMF ??  0.29 0.31  1.44  4.89  NMF  0.10  NMF 1.00  ---    ---
BT     NMF NMF ??  0.25 0.28  2.90 10.36  NMF  0.10  NMF 1.46  ---    ---
SVTR   NMF NMF ??  0.45 0.50  1.40  2.80  NMF  0.10  NMF 2.59  ---    ---
TSB    NMF NMF ??  0.07 0.07  1.31 18.71  NMF  0.10  NMF 11.07  ---   ---
          (NMF = No Meaningful Figure)
                                    Fig.4
```

file detailing the realised capital gains or losses.

To enter a sale specify the symbol, date sold, number of units sold and proceeds (less trading costs & brokers commission).

❑ All Portfolios - one security

This allows you to summarise holding of a single security across multiple portfolios - useful if you have more than one, for married couples with separate portfolios or if you are a broker perhaps.

❑ Create or Duplicate Module

Creates a new portfolio or copies an existing one to a new set of files.

❑ Payback Module

This module is useful for comparing the performance of companies by calculating the time it would take to earn back the original cost of shares purchased (see Fig 4).

It has a sub-menu that allows you to manipulate the payback data file. Options are to delete a symbol, change data or add a new symbol, view or print the file and save it after modification.

To use this facility properly will require a little research (by obtaining copies of company reports), since it requires figures for Earnings per Share (EPS) n years ago, the number that n represents, EPS last year, EPS expected for next year, market price and an estimated growth rate. Not all of these figures are required as the program will either calculate growth or use the estimate to determine the number of years to payback. How you interpret the information is the subject of a discussion in the relevant chapter of the manual, which also contains the standard caveat about the inherent riskiness of the stock market.

❑ New Password/Phone# Module

Displays the password and phone number for use in accessing Tymnet, which is, as mentioned previously, not a usable function. This module can, however, be used to specify the slot and drive number for the program and data disc(s).

Testing

In order to test the program I ran it over a period of nearly two months for a dummy portfolio of popular shares (recent privatisations etc.), starting with an, unfortunately, imaginary capital of #10000. I updated the market values from the newspapers once a week and printed a summary of holdings each time. After any sales I printed a summary of realised Capital Gains/Losses. I also experimented with the payback module, though not having all of the information to hand, I didn't use it to its full ability.

The period covered the onset of the Gulf Crisis and it didn't take a financial genius to decide to invest heavily in oil (BP - not Gulf or Q8!).

The opening and closing status is shown in Figs 1 & 2 and the Capital Gains statement in Fig 3.

Results

This is where I found out what I want most from such a package - graphics, the ability to plot a share's performance over a period and compare it with the FTSE-100 index or compare two shares over the same period. OK, perhaps I could live without the graph- ics, if there was some sort of historical summary, other than the weekly hard copies of holdings status. As it was it took me 3 weeks to realise that British Steel was a bad idea.

Conclusions

This is, to the best of my knowledge, the only such program available for the Apple // range in this country. There are others available in the US, but they will all suffer from similar problems to this one. By contrast there are many programs of varying ability (and price to match) available for IBM PCs and clones (ptui!). The program was originally advertised at £79.50 and is now offered at £59.50. Most of what it does can still be accomplished with the spreadsheet. **Dave Ferris**

---

info

Product : Compusec

Publisher : Compunetics Inc.

Available from :

MGA SoftCat
41 Cinque Port Street
Rye
East Sussex TN31 7AD
0797-226601

Price : £59.50 WYSIWYP

Value :

Performance :

Documentation :

The New Print Shop

Mavis Shardlow shows how she uses Print Shop to help her business

I began as a user of PRINT SHOP and PRINT SHOP COMPANION. Lately though I have worked with PRINT MAGIC as it allowed more complex posters to be produced, so when I saw there was to be a NEW PRINT SHOP program offering a lot of extras which seemed to be a combination of all three, I looked forward to getting my hands on a copy. The version I received to review requires an Apple IIe, IIc, IIc Plus and also runs on IIGS. You also need 128k of memory, a monitor, preferably 2 disc drives, a printer and spare discs on which to save your creations.

This is first time I have reviewed anything and the first thing you will notice is that you won't find any technical information or complicated jargon at all. That's because I don't know any! Everything I know about my Apple //e and Panasonic Printer I have picked up as I went along. Besides PRINT SHOP, PRINT SHOP COMPANION and PRINT MAGIC, the only other program I have used is AppleWorks. Anyway - here goes.

First things First

Firstly, the whole thing arrived well packaged and boxed. Besides the Manual, the box contains 3 discs; the double sided Program, plus two Data Discs which give a good selection of new graphics, fonts, borders, letterheads and full page panels. A printout of these is included. There is also a sample of coloured paper and envelopes.

The manual is very clear and easy to understand. Each section is well defined and gives very detailed steps with clear illustrations and examples.

Setting Up my Printer

Setting up for my printer was a case of trial and error as my interface card (CIRTECH) wasn't listed, but I found that EPSON APL(8 BIT) was compatible. As there is quite a long list of both printers and interface cards, there's bound to be one which, with a little patience, you will find to match your own Apple.

Once set up, I proceeded to try out the various projects available via the main menu.

These are:
1) GREETINGS CARD
2) SIGN OR POSTER
3) LETTERHEAD
4) BANNER
5) CALENDAR
6) QUICK PRINT
7) GRAPHIC EDITOR
8) SETUP OR CONVERT
9) EXIT PROGRAM

1) GREETINGS CARD - This will enable you to produce a range of cards for special occasions and this new version has the added advantage that you can have the fold at the side or the top. However you can only print to the front and one inside page with "Give Yourself Credit" on the back, and I much prefer the PRINT MAGIC version which allows me to produce graphics and text on all four pages, which is useful for producing publicity leaflets. (See the examples on the next page)

2) SIGN OR POSTER - Again this has the advantage of tall or wide printouts available. The full page panels on one of the Data Discs which were included save time and effort in setting up too.

3) LETTERHEAD - as with the original PRINT SHOP, letterheads can be produced for home or business use, but now a much fuller design and more text can be fitted in.

4) BANNERS - This is one part of the program I haven't tried as I don't have any need at present for producing them, but it seems to be similar to the original, though you can have two lines of text on horizontal banners instead of one. A vertical banner can now be produced as well as a horizontal one.

5) CALENDARS - An additional item which is not available on the original PRINT SHOP, although it is on the PRINT SHOP COMPANION, and this version can create full YEAR and DAILY calendars as well as MONTHLY and WEEKLY ones. You can create calendars from the year one to 9999, although due to redesigning the calendar throughout the ages, older ones may not be accurate. These can also be customised with your choice of graphics and text, with special days highlighted.

6) QUICK PRINT - This lets you produce text which can then be saved as

if it was a graphic. You can then insert these in or around or instead of any of the graphics set to appear on your cards and posters. Look for INSERT on customising layouts and pick CUSTOM GRAPHIC where asked for your selection.
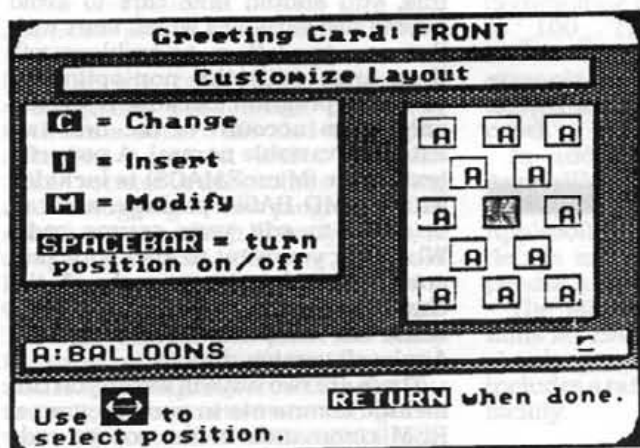
7) GRAPHIC EDITOR - This useful item lets you create and alter existing graphics in all sorts of ways and is similar to the one on the old version.

8) SETUP/CONVERTER - The SETUP is used for getting your computer, printer and program happily settled together. The CONVERTER lets you process old PRINT SHOP Graphics, Borders and Fonts to work with the new version. You cannot however convert any saved posters and cards etc. from the old version. The only problem I have found with this is that I need to carefully label a new set of data discs and to keep them separate from the old version copies to avoid confusion. Unfortunately, you cannot convert graphics from other programmes such as PRINT MAGIC. (Although, I can use PRINT SHOP graphics on PRINT MAGIC)

What's New?

The above programmes allow much more design possibilities than the old PRINT SHOP. The original lets graphics appear only in three sizes - SMALL, MEDIUM and LARGE. Positioning only allows for STAGGERED, TILED or CUSTOM, with the option of switching some of them off. The new version has a large number of layouts from which to choose and these can all be customised. It is possible to place as many as 26 different graphics on a poster, though I think that a bit excessive. Customising also allows for changing sizes, flipping the pictures around, moving any or all of them to new positions, cancelling some, plus changing from standard print to SOLID, OUTLINE, 3-D, RAISED and SHADOW. Customising the graphics is fairly straightforward, but I would have preferred to see the graphics themselves on the full page and not have to switch to a small box showing the position of each graphic as a letter on my chosen layout. I have to keep moving up to "Review" to check how the whole picture looks. However, with a little time and patience I can create a whole batch of background panels for my posters, then save them to discs for future use, so this is not too much of a problem.

Further Improvements

Another improvement is the number of different fonts you can use on a page. This, together with being able to alter the margins top, bottom and at the sides, lets you print much more detail than before. Switching between fonts is quick and easy. The fonts can be used as UPPER or LOWER case. As before, these fonts can be printed out as standard or customised like the

```
        Greeting Card: FRONT
           Customize Layout

    C = Change
    I = Insert
    M = Modify
    SPACEBAR = turn
        position on/off

A:BALLOONS

Use ↔ to          RETURN when done.
select position.
```

graphics.

The position of your paper can be checked before you print and you can print in a DRAFT or FINAL form. The latter compensates for a worn ribbon and both print out quite quickly. You can change the size you wish to print from very small (to produce business cards) through to very large strips which can be taped together to form large posters up to 10 x 10 pages.

Following through the instructions for each stage of your project is straightforward and you can go back and amend any part of your design at any time.

I like this new PRINT SHOP very much and if, like me, you need to produce large numbers of different designs for publicity posters you will find this program is just what you need.

The Verdict

To sum up, PRINT SHOP is an easy program to understand and you can learn to create posters etc. very quickly. The manual is clear and very detailed; as are the instructions on the programs which take you through each step of your projects.

Mavis Shardlow

MD-Basic

Peter Stark reviews this aid to programming in Applesoft

Introduction

MD-BASIC's main purpose is to help people to write Applesoft programs which have a structured and well commented basis and are therefore relatively easy to understand and modify. With MD-BASIC, you first write your program in the form of a text file ('source code'), without line numbers, and then convert (compile) this into an 8-bit Applesoft BASIC program which you can run in the normal way.

What is supplied, and what you need

MD-BASIC is supplied on an unprotected 3.5" disk, accompanied by a well-produced and informative manual of more than 100 pages. To run MD-BASIC, you need an Apple IIGS. Earlier versions of MD-BASIC required the APW or ORCA/M shells, but the current version is stand-alone.

Features of MD-BASIC

Unlike Applesoft, MD-BASIC does not need line numbers. To reference subroutines or other points in a program, you can use suitably named labels (e.g. 'GET_RESPONSE') instead, and GOSUB to these. Variables too can be given long names - another significant difference from Applesoft. The advantage of being able to use more descriptive names for variables and labels is that your program becomes easier to follow and understand. For conditional statements, MD-BASIC includes both IF-THEN-ENDIF and IF-THEN-ELSE-ENDIF. For loops, RE-PEAT-UNTIL and WHILE-WEND are provided. Constructions of these types can be indented in your source code if you wish, to make them easier to see.

Central to the operation of MD-BASIC are various 'compiler directives', which are instructions that help MD-BASIC to compile source code into Applesoft programs. The two most often used directives are '#define' (which is used to define constants and code macros) and '#include' (which inserts a supplementary file into the compilation at a chosen point). Particularly valuable are the numerous 'header files' which are provided on the MD-BASIC disk and which can be '#included' in your programs. These can save you a great deal of typing, as they contain a lot of definitions of functions etc. There are also some libraries of subroutines. The macros in MD-BASIC have many useful features, one being that they can make it easy to call subroutines by name without having to use GOSUB.

When compiling an MD-BASIC program, you have several options to choose from. One choice is whether to apply 'optimisation'. With optimisation, the Applesoft programs produced by MD-BASIC are made as short as possible. Their variable names consist of only one or two letters; as many statements as possible are packed into each Applesoft line; and the lines are numbered in ones. If however optimisation is off when you compile your source code with MD-BASIC, then the variable names in the resulting Applesoft program are of full length, each statement is on a separate line, and the lines are numbered in increments of ten. A good general strategy is to do the initial preparation and debugging of programs without optimisation when compiling, and then finally to compile again, but with optimisation on. However, if you do this, you should take care to avoid having two variables which start with the same two letters, as problems will then arise with the non-optimised compiled program (because Applesoft only takes account of the first two letters of variable names). A powerful text editor (MicroEMACS) is included with the MD-BASIC package, and can be used to edit your source code. Whenever you want to alter your program, it is advisable to make all the changes to your source code, and to resist the temptation to change the Applesoft version directly.

There are two ways in which you can include comments in your programs. REM commands in the source code will be retained in the Applesoft program produced by the MD-BASIC compiler. On the other hand, you can use an initial quotation mark to indicate comments in the source code, and these will then not appear in the Applesoft program. In this second way, you can include many explanatory comments in your source file without making the corresponding Applesoft program any bigger.

Overall impressions

While learning to use MD-BASIC, I found it helpful to print out all the sample source text files that are provided on the disk, and to work through these carefully. This helped me to see how MD-BASIC's various header files can be included in programs, and in general how source files can be constructed. It is also worthwhile to print out the texts of all the header and library files so as to see the full range of definitions etc. that these contain. The discussion of header and library files in the manual seemed rather sketchy to me, and I would have appreciated much fuller explanations and rather more examples of source code.

The compiling of source files into Applesoft BASIC programs with MD-BASIC proved to be very easy in practice (as did the reverse operation of decompiling: see below). Switching between a source file and the corresponding Applesoft BASIC program (while you are in the process of writing and debugging a new program, or of modifying one which already exists) is simple and rapid. However, it would have been convenient to have had a CATALOG option on the main menu. The MicroEMACS text editor has many features. At first sight it can seem rather daunting, but I recommend you to try it, as in practice one can get on well with just a few of its capabilities. You can use a different text editor if you prefer, of course.

Other facilities that are supplied with MD-BASIC

MD-BASIC also has a decompiler which allows you to take an Applesoft program and produce an MD-BASIC source file from it. The source code can be modified or annotated as you wish, and then converted back into Applesoft. Where appropriate, line numbers in the original Applesoft program are converted into labels during decompiling (e.g. line '100' is changed to '_100_'. The decompiler allows you to choose from various alternatives (for example, to put all BASIC keywords and/or all variable names into upper case).

In addition, MD-BASIC includes AmperWorks, a useful collection of further commands which use Applesoft's ampersand feature. Full details are given in the 37-page Appendix A of the manual.

The MD-BASIC package also contains MDBASIC, an S16 file which is a simple program selector and which includes a rather good screen-blanking facility.

Summary

After a little practice, I found MD-BASIC quite easy to use and impressively effective. It has a lot of features in addition to the ones which I have mentioned here. If you like writing Applesoft programs, and have access to an Apple IIGS, it is well worthwhile for you to think about buying MD-BASIC. It will help you to avoid many of Applesoft's limitations, and will make program preparation easier and more enjoyable for you.
Peter Stark

FASTDATA Pro

Peter Stark looks at an unusual data search technique for ProDOS

FASTDATA Pro is a program which I originally bought largely out of curiosity, I have to admit. However, I was pleasantly surprised when this unusual product turned out to be remarkably useful and powerful, and I now use it regularly.

What does it Do?

In essence, FASTDATA Pro enables you to search through files on ProDOS disks and find any string of characters that you choose. FASTDATA Pro does this in an impressively short time, and you can easily search a series of disks if you wish. If you choose, your searches can be case sensitive (so that only the specified combinations of upper and lower case characters are matched). When defining your search requirements, you can use the question mark character "?" as a wildcard instead of a specific character if you wish, and this widens the scope of your search. On any given disk, you can search individual files, or all files in a given directory, or the entire disk (even if the files are arranged in several levels of subdirectories). Just for example: almost the first time that I tried FASTDATA Pro, it was because I needed to find an AppleWorks file which I knew to be present somewhere on one of my 3.5" disks, and buried in a subdirectory. I could not remember the name of the file, or of its subdirectory, but I did at least recall that, in the file, I had mentioned a Mr. Whitaker and his telephone extension. To locate what I wanted, all I had to do was to boot FASTDATA Pro, make sure my data disk was in a drive, type 'L' (for Load), then '+' (RETURN), and finally 'Whit,ext' (RETURN). In just a few seconds, FASTDATA Pro had found the file I wanted, and showed its pathname and the relevant lines on screen (with 'Whit' and 'ext' highlighted). While it is actually carrying out searches, FASTDATA Pro displays the names of all the files that are being checked. This first example was, in fact, a nice instance of FASTDATA Pro's ability to use logical operators (AND, OR, NOT) in terms of two or more sets of characters when searching if you so wish. (I should explain that the comma is used by

FASTDATA Pro as the AND operator, the semicolon as the OR operator, and the exclamation mark as the NOT operator).

Depending on your needs, FASTDATA Pro allows you to choose whether to search through files of one particular type, or through all file types. The choices offered on screen are: Text; Binary; Directory; Apple-Works word processor; AppleWorks database; AppleWorks spreadsheet; Pascal; ORCA/M Source; Applesoft BASIC; System; and 'All' files. The matched information found is displayed on screen, but can instead be sent to a printer (or written onto a file on disk).

Important Features

Another important feature of FASTDATA Pro is that it allows you to decide which character to use as a 'delimiter'. Essentially, a delimiter (or 'block delimiter') is a character which you yourself can choose, and which defines the end of each record to be searched. Usually, the delimiter is chosen to be a 'carriage return', but you can easily opt for a different character instead. This opens up the intriguing possibility of being able to create your own free-form databases, with records of variable and almost unlimited length. All you need for this is FASTDATA Pro and a word processor. You just enter your blocks of data or other information into your word processor, ending each with whatever character you have chosen as delimiter. Then: save the file, boot FASTDATA Pro, type 'B' (for Block delimiter), enter your delimiter, and load and search your file. FASTDATA Pro provides a good number of other possibilities, including: cutting and pasting; the ability to split a file into two or more separate ones, and the chance to merge two files into a combined one.

Introductions All Round

FASTDATA Pro is unprotected, and runs on Apple II+, IIE, IIC, and IIGS computers having at least 64 K of memory. I used the 3.5" disk version of FASTDATA Pro, on a IIGS operating in 'Fast' mode, and was impressed by

its speed and capabilities. A useful 36 page manual is also supplied, and I found this a good guide to the use of FASTDATA Pro. After a few pages of introduction, the manual gives a tutorial which is well worth going through as a way of getting the feel of FASTDATA Pro. The various individual commands used with FASTDATA Pro are then explained in more detail, and lastly the manual gives some useful hints and other advice.

Snags ?

Once I had got used to FASTDATA Pro (which did not take long), there were very few snags to be found. The program is menu-driven, and is mainly operated through easily remembered single keypresses. (There is no provision for use of a mouse). Non-text ProDOS files can be converted into text files, if you want to do this. The manual also tells you how to convert text files into AppleWorks word processor files. As the manual points out, certain types of file contain non-text codes which FASTDATA Pro displays on screen as apparently random text characters ('garbage'). I found that this occurred with AppleWorks GS and Medley files, for example. However, for search purposes this is unimportant. Although I have not tried an exhaustive variety of file types yet, so far I have only met problems in the case of ThinkWorks files. With these, FASTDATA Pro omitted a few of the original words, and changed the order of some of the original ThinkWorks entries.

To Sum Up ..

Overall, FASTDATA Pro is a product that I recommend, particularly if you have many 3.5" disks (or a hard disk), or if the idea of creating and using free-form databases appeals to you.

Peter Stark

Master Series

Derek Blackburn looks at a trilogy of programs from Bridget Software

Letter Master - Graph Master - Record Master

The three disks are produced by an American company, Bridget Software of Maryland, and connect loosely with each other. (Record Master can use Print Formatting files developed on Letter Master, Letter Master can produce Reader's Digest type circular letters from Record Master address and name files, Graph Master can read Record Master files). However the programs can stand alone. Each comprises a disk which is not copy protected and an A4 lithographed manual. All were produced 1985/6 and it does show a bit; the programs are ambitious, trying to incorporate the best of some expensive commercial software that was coming out at the time. They get this right about 95% of the time and you must judge whether you will find the other 5% a problem. You may well decide that what you get is no more than you might expect from current public domain software and therefore considerably overpriced as offered.

If you do want to use the three disks together, be prepared for just a few irritations ranging from minor (differing styles of menu where a highlighted letter requires a Control letter response in one program, a simple capital letter in another) to major (the possible need to play around with your printer interface cards).

Letter Master

Hardware

Apple //e with 80 columns, IIc or GS. One or two disk drives can be used, although it may be some time before you have enough space used to need the second drive. In spite of what the manual says, a printer really is required. It was necessary to be careful about the printer card - Letter Master did not like my Cirtech Cachecard and printed something I haven't seen for a few years: 80N at the beginning of each printed line of text. (A selection of 'standard' American cards presented no problem, but this is a reminder to ensure that you get software on approval or state your hardware details

when buying in case of hitches like this).

The program

You get simple word processor features (change, insert, delete, tab, cursor move, Macro entry, on-screen commands, help screens, WYSIWYG display) together with disk operations (read / save) and printer control (page length and numbering, choice of 4 print sizes, centring, multiple copies, double line spacing, sending control codes e.g. for italic or underline). As with a typewriter, you also get a warning bell - CHR$(7) in BASIC - near the end of a line. Additionally, you can develop and print form letters. The Hello program can be configured for your system characteristics. Even with one drive, there is no default arrangement on menus and it can become pretty wearing being asked which drive you wish to use. Older // e machines are catered for in that it is possible to enter CTRL-\ when <ESC> is requested, producing the required effect.

In use, the choice is between the 'line-typer' or the letter writer. Letter Master allows you, with adjustable parameters such as margins, automatic Saving to disk and even a key click, to edit and then print lines of text. It would have beaten many electric typewriters in 1985 though it might not score over those you have been able to buy at under #200 in the last two years. Once you have picked up the cursor controls, etc., the program does all that it says it will. You need to remember that, if you have not selected the automatic Save to disk, a line is lost once printed - so what if you messed up the last line of an address and wanted to print another envelope to replace it ... tough - start again! Care is needed with file names - both lower case and upper case names are acceptable.

Entering text under regular conditions, there seems to be no problem about typing speed. When editing features are used (such as Insert Text) then a fast typist really has to slow down (or be constantly going back to add 'missed' letters).

Letter Printer allows for some editing of any ASCII (as well as Letter Master)

files. Perfectly acceptable form letters can be made using variable files created easily with Letter Printer or files already existing from the Record Master database.

The manual seems to be very clear. Some improvements to the 1985 program are detailed on a 1986 Update file on the disk, accessible on screen through the Initial Menu. The manual lacks an alphabetical index.

Conclusion

If you have not got a word processor or a typewriter with a memory, this program might suit. It might even have the edge over a word processor if you have occasional Proforma documents to fill in and need them to match text produced on your printer (for example a job application form).

Graph Master

Hardware

A 64k Apple II+, //e,c,GS with one drive will suffice. A second drive is a good idea if many graphs are going to be stored as these soon pile up and the Hi-resolution Binary files use a lot of disk space. 40 column display is used and a printer (dot matrix) is desirable. This program worked fine with the Cirtech printer card but had trouble with a PKASO. Again, as with Letter Master, check that your card will work before buying. As with a lot of American programs, Grappler compatibility is preferred.

The program

Bar, line, pie or scatter graphs are drawn. There are ample opportunities to label or title these graphs and both to calculate the data used and present the results in different ways (for example transforming figures by powers and logarithms; through calculating and displaying regression data / lines; through calculating frequency distributions). Both the bar and line graph options allow for the presentation of extra sets of data if required. The editing facilities allow a number of adjustments of presentation to be made and there is even the opportunity to 'touch up' the pixels on the final presentation. Data and graphs can be moved to and from the disk. Bearing in mind the screen resolution of the Apple, the maximum of 350 numerical data points which can be accepted for plotting is ample. Record Master or ordinary sequential data files are accepted and also direct entry from the keyboard.

There were very few foibles. The Caps Lock was requested as lower case seemed to go unrecognised. Unlike the other two programs reviewed, Quit on the menu really meant it, risking sudden loss of data! A perfectly round Pie chart on the screen came out as elliptical on paper, a nuisance because it allows ambiguity in what is usually

thought of as a very clear way of presenting proportional information.

Scaling can be selected to be automatic but this can lead to some fairly odd points being chosen, sometimes with points being drawn just outside the frame although it was usually possible to make adequate adjustments of the scale later. It was always a good idea to check the graphs against the raw data, particularly when regular, say annual, figures were being plotted on a line graph; some labels could be printed with equal spacing and to suit marks on the X-axis but the 'real' points were adhered to in plotting and this would lead to errors if figures were read off against the printed labels of the graph.

Conclusion

It did what it said it would, preparing quite complex graphs to a quality that was mainly restricted by the Apple pixel size and by the printer.

Record Master

Hardware

Apple II+ or //e with 48k or more, the disk is two sided giving both 40 and 80 column versions. A single disk drive is possible but two are necessary if you wish to do any more than simply play with the tutorial files.
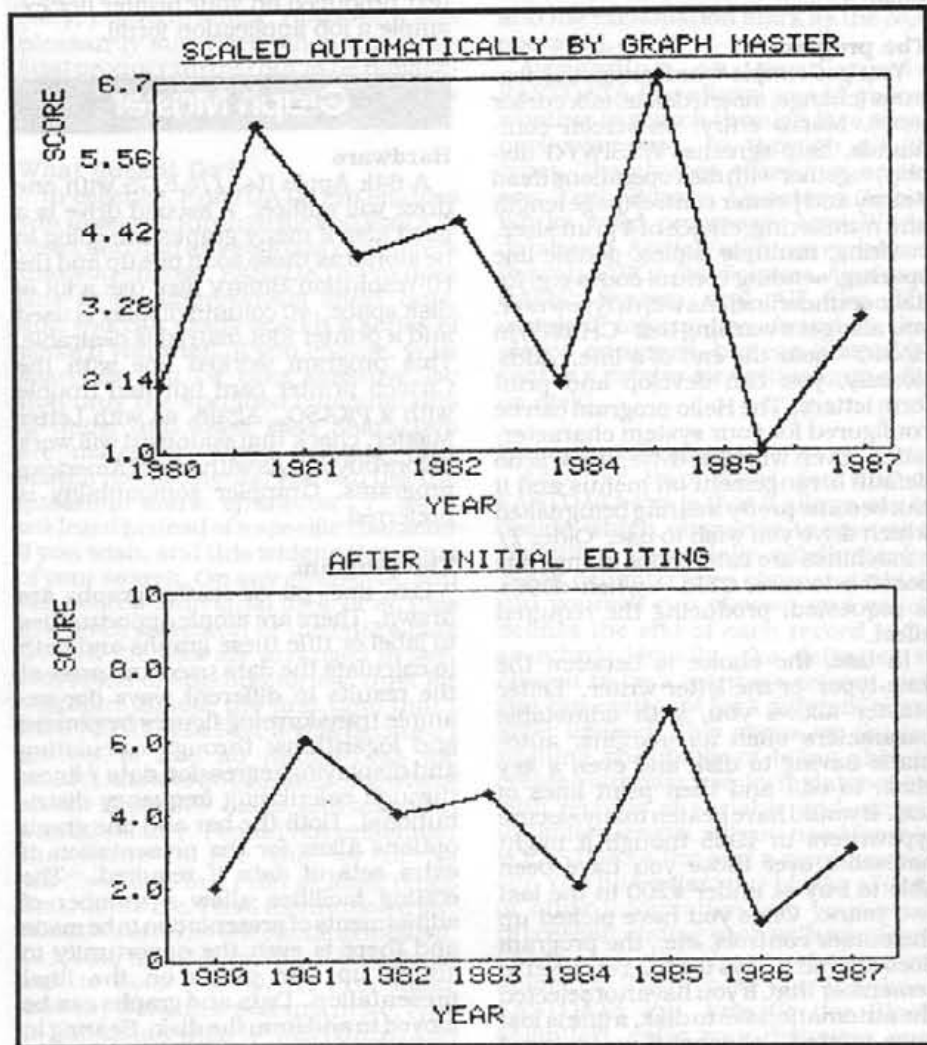
The program

Trying to provide a 'complete database

SCALED AUTOMATICALLY BY GRAPH MASTER

AFTER INITIAL EDITING

The manual is presented in a clear and orderly way; there is plenty of information there and since the language is rather mathematical I appreciated the clarity. The manual lacks an alphabetical index. One little mistake matters: the main blurb on the back of the manual says that 400 numerical data points are possible. Not so, it is 350 as noted above (and elsewhere in the manual) and the only way I found to crash the program (into the monitor, too) was by entering point number 351.

system', there is a range of features which includes those associated with advanced databases: Sorting of up to 10 fields at once (fields which may be alphanumeric, numeric, date, dollar or calculated), Searching with up to 50 comparisons (and, or, equal, not equal, >, <, wildcard, 'containing'). Data entry using repeat and Macro instructions, Update selectively or in bulk, standard Arithmetic on numeric fields, Print with savable user formats - including address labels up to 5 across the page. The Hello program can be configured

for your system characteristics.

Capacity looks impressive, up to 750 records with 38 fields and 100 characters per field. In practice, memory is the biggest limitation of the whole system. If you need to process fairly simple data, say the membership records of a small club, you might do well with this package. A few lines of address, subscriptions, dates paid, rank on a sports ladder, type of steam engine admired, status in the SLD party - just the stuff; maybe catalogue your software or your LP collection. With much of the disk storage in Random Access files, budget for your largest data requirement and divide it into the maximum disk space, 140k using drive two or about 79k if only drive one can be used. There may only be room for 500 or 600 records. The second memory problem is that, although when sorting only the relevant fields are loaded, do you have room for these? The available memory is 12000 bytes on a 48k system, 22,000 on a 64k one (if you have further memory it brings no benefit). It is quite easy to imagine wishing to load more data than that into memory for, say, an alphabetical sort of Book Titles and Authors and running out of space long before the full list is loaded. There are ways to reduce the memory shortage, either abbreviating data (which will restrict interpretation of your printed lists to those who know your code) or a complicated system of file selection and merging of the selected items to a new file - very time consuming and involving disk swapping. Before using any database, not just this one, first have a clear idea in your mind what you want it to do.

The package has a good number of idiosyncrasies, few of which cause fatal errors but which all make its use cumbersome and its price a bit of a shock. A selection:
❑ Dollar signs, of course, and the U.S. date format of MM-DD-YY (though printed out in the form YY-MM-DD)
❑ <Carriage return> was needed on simple menus with single key responses (though with the occasional menu doing otherwise as a surprise), lower case was not unrecognised (again for menus).
❑ Some key inputs requested by menus were not recognised (this is an old //e which does give some programs problems with the ESCAPE key), although that was fairly nerve wracking during a test of the Delete record function. Error trapping was usually thorough, although it took a while to realise that dollar fields would accept $2-50 (should have been $2.50) treating it as $2 in any calculation. Knowing that Less than (and <) meant 'less than or equal to' helped make sorting more accurate as well.
❑ Catalog sometimes giving file lengths of 001 (normally a time to panic although the data did seem to be there).
❑ There was no memory of the default

files produced 'bad record' messages; on all but one occasion the files seemed to behave normally but on that one occasion the whole 21k file became inaccessible.

Speed was a special problem. During data entry, and during some processing, there were the long 'garbage collection' pauses, familiar to Apple owners. Entry of data was slow for other reasons, either because of the slow processing of the keyboard (the BASIC 'GET' used for input?) or the time taken to print out to the screen a row of dots for each possible character. Sorting was difficult when memory became short, putting 100 times 100 character fields into alphabetical order took 2 minutes - all right, as we all say, time for a coffee; however, 150 records (there was still room for more in memory) took 15 minutes which is time to boil a meal in a bag!

Good points

Features which were particularly user-friendly were the 'thinking' countdown on the screen, an excellent choice of default responses to some menus (e.g. M for menu / Y' / N where the default choice was flagged and almost invariably the most common response), information about available disk space (measured in both sector and further records of the current size), room in each file of records for a description and a 'last used' date, frequent saving of data to disk so that a minimal amount of data would get lost at a power cut, 'Pack' which removed all trace of deleted files to speed up searches and save memory, Coded Entries where a single key (well three actually) entered a much longer string.

The manual was best, particularly because of its alphabetical index: if a word appeared as a prompt on the screen (e.g. 'Before' - with a meaning which was not entirely obvious) then it appeared in the index and an explanation could be found easily. One whole subject, perhaps a late (post 1985) addition to the program, was missing from the manual: the Table Generator which was concerned with producing the 'Macros' to speed up data entry. This mattered both as the screen instructions were rather sparse and also the feature could not be introduced at the data entry stage (just when you felt the need for a short cut to those long and frequent expressions!)

Conclusion

The program is right for a particular time, when there was little available for the Apple II series except the 'originals' like PFS (limited and £75) and the super-commercial like DB Master (£300). The time I mean was before Apple Works and other programs which could utilise extra memory - really not for now.

Derek Blackburn

This picture and other graphics used in the first half of this issue of Apple2000 are ShareWare MacPaint pictures available from:

Printers Devil™ Software, P.O. Box 1828, Easton, MD, USA 21601

They are also available on TABBS for downloading.

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drive so that virtually any disk work required the entry of the drive number (even with a single drive). During one feature, the request was made twice for a drive number to save a file.
❏ It was quite possible to create a large file that could not subsequently load one field of each record into memory. The error is trapped at a certain number of records loaded, advising that it was possible to continue with that number in memory but the program would then halt having processed (N - 1) records.
❏ The Pack feature was there to remove deleted files - inaccessible but still memory consuming. This didn't work if you used the Delete option, rather you had to delve into the Editor and use Remove Records. Obvious, really!
❏ Delete proved to be a temperamental function for, after using it, a number of

GraphicWriter 3

Jeremy Quinn takes a cautious look at the latest version of GraphicWriter

Introduction

I am a reasonably experienced Apple][gs user and programmer, though I am not particularly experienced at using wysiwyg DTP programs. I have never really got into that kind of DTP on the gs, as I've never found a powerful enough program. I think I was selected to write this review because I have a LaserWriter!

I generally construct the pages I need for my business etc. using PostScript directly. For instance, my invoices are in the form of an Apple-Works-Classic mail merge document, containing the postscript code to "describe" the page, which takes value and address information from an Invoice Book database. The process of printing a particular invoice is then controlled by a Macro. Though this is rather tedious to set up, it gives me the control I need.

I have been using AppleWorks GS for simple stuff, where very tight typographic control isn't required. I have been looking for a REAL DTP program for this machine, have I found it?

The equipment I used to test this program includes an Apple][gs with 3 meg of memory, Colour Monitor, TransWarp Accelerator, Hard Drive and LaserWriter+.

Description

GraphicWriter III is a Mac-Like DeskTop program using all the common features like pull-down menus, windows etc., that any user of Apple][gs specific programs would feel at home in.

The way of working is very simple, the different elements of your page go in Frames. You can create frames for Text, Graphic Objects and Bit Images.

A Text Frame acts like a Word Processor, you can select a Font, a Style, a Size etc, you can enter and edit text, import and export text from other programs and even spell check.

A Graphic Object (or Draw) frame is like any Object Orientated Graphics program. You can create, edit, select, group, resize, rotate, fill, colour etc., objects like lines, arcs, rectangles, triangles and polygons. You don't actually need a frame for an Object, it can go anywhere. You could for instance lay text over a graphic.

A Bit Image (or Paint) frame is like any Paint program. You can create, edit, colour, magnify, re-position, resize, import etc., any ArtWork you require. While you can only edit in "Tall" mode, you can view your work in any scale you choose including "Actual Size". GW3 seems to overcome problems with other programs of outputting both BitMap and Text on the same page while retaining the correct aspect ratio for both. GW3 also allows you to double up the vertical resolution of your dotmatrix printer by compressing Paint Frames.

So, unlike a program like Apple-Works GS, GW3's modules are all combined, ie., if you want a text block, you select a Text tool, and with a click and a drag, create a Text Frame. If you
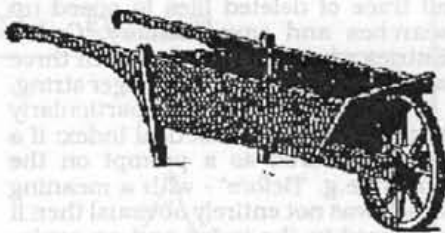
want a picture, select a Paint or Draw tool, and just get on with it, in situ.

GW3 does not compare with earlier versions of GraphicWriter. They were merely DeskTop type WordProcessors. GW3 is a different thing altogether.

The manual is loose leaf A5 format in a ring binder, it is quite well written with a Table of Contents, an installation section covering 3.5" and Hard Disks, a Tutorial, a reference Section, various appendices and a decent Index. The program is thankfully not copy protected.

Program Facilities

I am not going to list all the menu items or anything, just give you a list of some of my favorite capabilities.

Kerning is possible for blocks of text down to individual pairs of characters. You select the text, choose the correct menu and enter a +ve or -ve factor for the spacing between the characters.

You can customize the font menu to contain only regularly used fonts.

Linking Text frames is very easy.

There is a selection of text wraps around graphics, you can select "None" -gives you an overlay effect, "Skip Over" -text stops above and continues below a graphic, "Wrap Around" -the graphic goes in a whitespace box in the text or "Wrap To" -text fits around the shape itself. You can also specify a "Standoff" value for Top, Bottom, Left and Right.

The importation and exportation of Text and Graphics is well handled, you can import/export AppleWorks-Classic (incl. SuperFonts), AppleWriter, Bank Street and MouseWrite text retaining any formatting, also you can set up a custom import translation. While for graphics, GW3 handles PrintShopGS, Single HiRes, Double HiRes and Super HiRes. The program uses translator modules to handle these different formats, and the writers say they can supply new translators for other formats if there is demand.

You can set your preferred units of measurement for the program from a choice of Inches, Centimeters, Points, or Picas.

Problems

The current version of GW3 is 1.0. It contains MANY bugs, some really quite serious. I have already E-Mailed the company several times with bug reports. To their credit, they are very courteous and have always replied. Their MailBox is on AppleLink so consequently rather difficult to access from an Apple][, but if you have access to Internet (through Compuserve or something like that) it's easy. They also list their Phone number (in the USA) and their postal Address.

They told me they are working on a bug-fix version, but could give me no release date at present.

GW3 does'nt currently use the System ClipBoard. This is a real pain. It means you can't copy text or graphics from an NDA or any other program except by importing the whole file. They say they are fixing this.

Conclusion

While the program in it's current state is rather too unreliable, I feel it will develop into an extremely useful tool. The developers seemed to listen to suggestions, and if hassled could well add the extra features we want.

GW3 is reasonably fast, and it is certainly the most powerful DTP program I've seen so far on the GS. I know that's not saying much! I hate to say this but, if you rely on DTP for your profession, the Apple][gs is just not your machine.

Jeremy Quinn

Real Programmers

❑ Real Programmers don't eat quiche. They like Big Macs, Coke and Vindaloos.

❑ Real Programmers don't write write applications programs; they program right down on the bare metal. Applications programming is for dullards who can't do systems programming.

❑ Real Programmers don't write specs. Users should be grateful for what they get; they are lucky to get any programs at all.

❑ Real Programmers don't comment their code. It is hard to write; it should be hard to understand and harder to modify.

❑ Real Programmers don't document. Documentation is for simpletons who can't read listings or the object code from the core dump.

❑ Real Programmers don't draw flowcharts. Flowcharts are (after all) the illiterate's form of documentation. Cavemen drew flowcharts; see how much good it did them.

❑ Real Programmers don't read manuals. Reliance on a reference is the hallmark of the novice and the coward.

❑ Real Programmers don't write in COBOL. COBOL is for gum chewing dimwits who maintain ancient payroll systems.

❑ Real Programmers don't write in FORTRAN. FORTRAN is for wimp engineers who wear white socks. They get excited over finite state analysis and nuclear reactor simulation.

❑ Real Programmers don't write in PL/I. PL/I is for insecure anal retentives who can't choose between COBOL and FORTRAN.

❑ Real Programmers don't write in BASIC. Actually no programmers write in BASIC after reaching puberty.

❑ Real Programmers don't write in APL unless the whole program can be written in one line.

❑ Real Programmers don't write in LISP. Only faggot programs contain more parentheses than code.

❑ Real programmers don't write in Pascal, Bliss or Ada or any of those other sissy computer science languages. Strong typing is a crutch for people with weak memories.

❑ Real Programmers' programs never work right first time. But if you throw them on the machine, they can be patched into working order in "only a few" 30-hour debugging sessions.

❑ Real programmers don't work 9 to 5. If any Real Programmers are around at 9.am. it's only because they've been up all night. Real Programmers don't play tennis or any other sport that involves a change of clothes. Mountain climbing is OK, and Real Programmers wear climbing boots to work in case a mountain should suddenly spring up in the middle of the machine room.

❑ Real Programmers disdain structured programming. Structured programming is for compulsive neurotics who were prematurely toilet trained. They wear neckties and carefully line up pencils on an otherwise clear desk.

❑ Real Programmers don't like the Team Programming concept. Unless of course they are the Chief Programmer.

Real Programmers scorn floating point arithmetic. The decimal point was invented for pansy bedwetters who are unable to "think big".

❑ Real Programmers don't believe in schedules. Managers "firm up" schedules. Frightened coders strive to meet schedules. Real Programmers ignore schedules.

❑ Real Programmers like vending machine popcorn. Coders pop it in the microwave. Peal Programmers use the heat given off by the CPU. They can tell which application is running by listening to the rate of popping.

❑ Real Programmers know every nuance of every instruction and use them all in Real Programs. Candyass architects won't allow EXECUTE instructions to address another EXECUTE as the target instruction. Real Programmers despise petty restrictions.

❑ Real Programmers don't bring packed lunches. If the vending machine sells it, they eat it. If the vending machine doesn't sell it, they don't eat it. Vending machines don't sell quiche.　　　　　　　　　　　　　　　　　　　❑

Communicating with Point-To-Point

Helge Malmgren describes the latest version of this well known program

Communicating with Point-To-Point

Point-To-Point (PTP) is the name of a versatile and easy-to-use communication program for the Apple //e (128 k), the IIc and the GS.

It was originally marketed by the "Pinpoint" company and has lately been taken over by the "Beagle Bros" company. B.B.have recently issued a new version, 3.0, released in April, 1989. I have been using the program for some years now and I think I have come to know a good deal of its advantages (several) and disadvantages (a few).

PTP uses ProDOS 8 and is, as far as I know, compatible with most existing hardware. With the help of a configuration menu you declare once and for all what modem, cards, etc, you will use. The program adapts itself automatically to the system's transmission speed and checks whether it contains an accelerator.
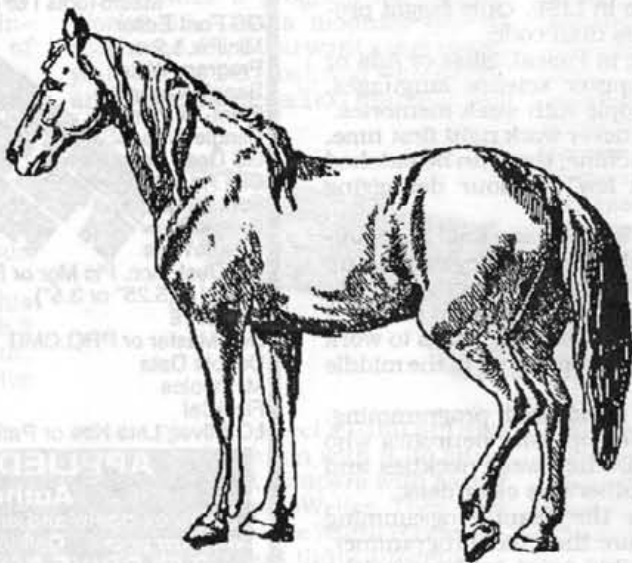
User Friendliness

The nicest thing about Point-To-Point is its user-friendliness with menus resembling those in "AppleWorks". They are very easy to understand. For those who have a self-calling modem (and most people have, these days) calling is very simple. The program can make an immediate call, or, if you have a clock in your computer, after a predetermined delay. Each one of the program's 16 call numbers may be provided with macros, automatically activated by "CONNECT", and can be used, for instance, for automatic logging-in. There is, when you are in communication mode, a small menu at the top of the screen, indicating Open-Apple commands for Xmodem, Trap, Print, etc. The program can print on-line; this feature comes in handy sometimes.

A useful command is "Open-Apple-2, D-send" which transmits ASCII-files from disc; it can also dispatch an AppleWorks file down the line and at the same time convert it to ASCII. In communication mode it is also possible to use Solid-Apple commands to transmit macro phrases that you have defined yourself. Using various Open-Apple-commands you may temporarily leave communication mode, in order to, for instance, change memory drive and then return to communication at exactly the same place in the text where you left it.

Buffer and Editor

There is a 16 k "Editor Buffer" in the program which you can enter directly from communication mode to change the text in the buffer. When it is full its contents are automatically saved to the disk drive indicated as being "Current Drive". In the latest version PTP will use all available RAM as "Re-

view Buffer". You can examine the contents of this buffer but you cannot edit it. If you have other information stored in your RAM you can limit the size of the buffer when you configure the program at start.

Answer-Back

Line number 16 is reserved for "Answer-back mode" and you use it to define transmission speed, macros, etc.

File Management

From the Main Menu, apart from calling, answering, writing macros, you can do some file managing (Rename, Delete, etc.) and print out files. There is also a command called "Make an AppleWorks file from a text file". It is particularly useful for those who have an old version of AppleWorks which places a "Carriage Return" at every end of line in a text file. Those who have a recent version avoid the trouble of having to fetch an ASCII file in AppleWorks. It is preferable to have the file converted directly after it has been fetched by the modem.

Emulating Terminals and Macros

In its latest version PTP can emulate VT-52 and VT-100 terminals in case someone should be interested. Furthermore, it is now possible to define one's own Open-Apple Macro commands that can be used at all times, not only when you communicate using a specific line.

Disadvantages

Something about disadvantages: it is a bit awkward to use PTP to communicate directly with another computer. You have to employ the command "Resume communication". You probably have to use the same command if you have an "old-fashioned" modem without self-calling facility. There is nothing written in the manual about how to manage this type of modem and I have never tried to test the latest version on this point. Thus, for the time being I can only recommend PTP to those who have a self-calling modem. It is also a pity that the PTP can have only 16 telephone numbers on its numbers list. If you need to store more than 16 numbers you could use two disks (or two sections on a hard disk) with the PTP program on both.

Finally: in the latest version of PTP a command called "Change file type" has regrettably been removed. True, there are other programs capable of doing this; I myself have saved an old version of PTP for the sole purpose of changing file types.

There seems to be a bug in the program that stop the "Open-Apple-0" command ("hang-up") to function if you have a Zip-chip. In that case you must leave communication mode writing +++ and then "ATHO" or, for a moment, lift the receiver off its hook. This is the only error I have come across.

The manual is very clear and explicit, although a bit long-winded in places. If you acquire the program and there are problems you are welcome to contact me (through AUG Sweden) - also if you have any questions before procuring the program.

Helge Malmgren - AUG Sweden
Translated by **Paul Mitlid** - AUG Sweden

IIgs Virus Infection

This is the tale of the terrible virus "Fisher Junk" that one day struck me without warning. This virus is certainly one of the very worst to strike the Apple IIGS-world.

Symptoms of "Light Infection": you will find that suddenly certain programs will not start because your Operative System is ailing. As an example, "ARKANOID II" hangs when "TATIO" has dropped; booting "Copy II Plus 9.0" gives you the message "OUT OF MEMORY ERROR" if you move the mouse or use the arrow keys.

"Medium Infection": GS/OS locks up when you have booted the Hard Disk or when you click on it or when you put a 3.5 inch disk in the drive. Then, if you try to boot GS/OS from diskette (I don't recommend that), you will get the message "FATAL SYSTEM ERROR -> $0311".

"AIDS": the infection has proceeded as far as to destroy your sub directories and vast quantities of information are lost. You are now in a very bad way.

What could you do, then, to clear up this mess ? For a start you have to acquire the following tools:

1. COPY II PLUS of a version between 6.0 and 8.3
2. COPY II PLUS 9.0
3. Arkanoid II
(4. TopDraw)

You start by using COPY II PLUS and Arkanoid to examine GS/OS. When these work all right you have a healthy Operating System. If even TopDraw, under GS/OS 5.0.2 works all right, then you have a "sterilised" Operating System. However, if they do not work properly (except TopDraw) you may have caught the infection, and, if so, you should follow this procedure:

Make at least TWO copies of your System Diskettes (if those catch the infection your system is seriously ill). Make a back-up on the Hard Disk of everything but the Operating System. Boot the old version of COPY II PLUS and make a "catalogue" of your various sub directories for GS/OS, that is :SYSTEM:ICONS; SYSTEM:CDEVS; :SYSTEM:DESK.ACC. etc. If, among these, you find FINDER.DATA files dated 13 OCT-89 you are on the track of the virus. Look up OCTOBER 13 in a calendar for 1989 and you will find that it is FRIDAY THE THIRTEENTH. Those files are forged sub directories that make the GS/OS go insane. For instance, try to copy such a file using COPY II PLUS and you get the error message "CANNOT DELETE

NONEMPTY SUBDIRECTORY". Proceed by erasing every FINDER.DATA file on the Hard Disk. You can also catch all FINDER.DATA files if you have access to "FND:FILE" from ProSEL.

Boot the Hard Disk, and if your infection was of "Medium" strength. GS/OS will now be running correctly. Make a test by trying to start Arkanoid II and COPY II PLUS 9.0. Did they run all right? If everything seems to work perfectly, don't imagine that this condition will last forever. If you only remove all the FINDER.DATA files and don't change the entire Operative System, the hard disk will soon be stricken with "AIDS", and then the only thing to do is to reformat it. If you try to "save the children out of the burning house" you won't be able to enter it! In other words, when you try to copy the contents of the sub directories on the hard

disk you will only end up in the root library. In my case it took about a week from the moment I had removed all FINDER.DATA until the Hard Disk developed "AIDS".

I believe that the virus emanates from the French PD-program ROCK'N' ROLL GOLD which, when I booted the diskette one day, flashed the text "FISHER JUNK"across my entire screen. NEVER use that program and, if you already have it, THROW IT AWAY! I have heard rumours about virus that sticks to the formatting!

Remember: you are never safe against viruses!!

Martin Landhage - AUG Sweden
Translated by **Paul Mitlid** - AUG Sweden

IIgs System Disk 5.0 Series

A series of articles from AppleLink describing the GS System 5.0 disk

❑ Although describing the System 5.0 disk, these articles describe the important changes made with the introduction of GS/OS System 5.0. The changes apply to all system disks since that time.

Apple IIGS System Disk 5.0: Disk II/Apple 5.25-inch Driver

The 5.25-inch Disk driver is now installed on SYSTEM.DISK that ships with GS/OS. You do not need to run the Installer to support the 5.25-inch drive, but you still need to use the Installer to support a SCSI drive.

The 5.25-inch disk driver included with Apple IIGS System Software 5.0 can support up to fourteen 5.25-inch disk drives. The Apple IIGS limits 5.25-inch drives to slots 4, 5, 6, and 7 when the computer is in fast mode. When using the Apple IIGS System Software 5.0 and the 5.25-inch driver, you can now operate 5.25-inch drives in slots 1 through 7, in slow or fast mode.

The 5.25-inch drive does not use a cache, because the 5.25-inch drive does not provide a method of determining a disk switch. The light on the drive flashes when the Finder issues the status call to the 5.25-inch driver. The driver must check the drive to see if a disk is inserted or has changed since the last status call.

Apple IIGS System Disk 5.0: Advanced Disk Utility and SCSI Manager

With System Disk 5.0, the Advanced Disk Utility permits a larger number of partitions on a single SCSI drive. The maximum size of each partition is still limited to 32MB. The following table shows the number of possible partitions on a drive, given the drive size.

Drive Size	Max. No. of Partitions
20MB	8
40MB	8
80MB	8
160MB	8
256MB	8
320MB	10
512MB	16
640MB	20
800MB	25
1GB and up	32

SCSI Manager

The SCSI manager has been modified to provide a four-fold speed increase and additional SCSI support. The new driver is faster because it is loaded into memory and does not use the firmware on the card. When the driver was written, a number of new features were added:
❑ Full SCSI device support
❑ 7 physical devices
❑ 32 volumes per drive
❑ full SCSI command support - access to non-ProDOS partitions - support for magneto-optical drives (with a driver)

The firmware must run at normal speed (1MHz) and not

at fast speed. The new drive talks directly to the hardware on the card and may not be compatible with any other existing SCSI interface cards. The SCSI manager was designed to work only with the Apple SCSI interface card.

The SCSI manager can support seven external boxes (a "box" being something that has a SCSI address). Each box can have up to eight devices, and block devices like hard drives can have up to 32 partitions.

The SCSI Manager works by having a device driver for each different type of SCSI device you want to hook up. This allows different types of devices to be added without modifying the external device or the SCSI card. You just need to add the driver to the system. This is how Apple supports SCSI hard disks and the AppleCD SC. The device drivers are located in the following folder:

`/disk/SYSTEM/DRIVERS`

Apple IIGS System Disk 5.0: Changes to BASIC.SYSTEM

Two problems were fixed in BASIC.SYSTEM 1.3, and one new feature was added.

MTR Command

The new feature is the MTR command, which lets the user enter the system monitor without having to remember "CALL -151". The user stays in the monitor until issuing Q or Control-C.

Problem Fixes

When two or more Applesoft programs were chained together and the length of the variable table was a multiple of 256, the chain command functioned incorrectly and the program crashed into the monitor or was sent to the ONERR command address. This is fixed in BASIC.SYSTEM 1.3.

BASIC.SYSTEM 1.3 also fixes a problem in BSAVE that caused the old length and load address to be retained when you BSAVEd over an existing file.

Apple IIGS System Disk 5.0: ToolBox Changes

This article summarizes changes and additions to the Apple IIGS ToolBox that result from Apple IIGS System Disk 5.0.

The Toolbox on the Apple IIGS has been modified to support a number of new features that are available to developers. (If these new features are used in a program, the user must have Apple IIGS System Software 5.0 for the software to function correctly.)

The Resource Manager and Text Edit are new for System Disk 5.0.

Additional documentation is available from APDA.

Control Manager

The Control Manager has been modified to provide support for more standard control types, including:
❑ StatText Control — Display text messages in a rectangle.
❑ PictureControl — Display a picture in a rectangle.
❑ IconButtonControl — Icon drawn in a rectangle.
❑ LineEditControl — Line Edit item used in List Manager.
❑ TextEditControl — Works with new TextEdit Tool.
❑ PopUpControl — Provide multiple selection buttons within scrolling lists.
❑ ListControl — You can now use the control manager to manipulate items in the List Manager.

Desk Manager

The classic desk accessory (CDA) menu now supports scrolling when more than thirteen CDAs are installed. CDAs are accessed by pressing COMMAND-CONTROL-ESC on the keyboard. Because of this change, selections no longer wrap around the screen. The number of CDAs is limited by disk space and boot time to install the files. You may have problems if you install more than 128 CDAs.

Event Manager

The Journaling feature is changed, to better support the ReadMouse function.

Font Manager

A problem was fixed in ChooseFont, which caused the system to hang if any update events were pending when the call was made.

Line Edit

Line Edit now supports a password field, in which the characters typed by the user appear on the screen as asterisks (*).

List Manager

The List Manager has been changed to make it easier for programmers to use, and to support new controls in the Control Manager.

Memory Manager

The Memory Manager has been modified to improve system performance.

Menu Manager

The Menu Manager now supports a number of new features, including: - Outline and Shadow text styles in a menu - scrolling menus - pop-up menus

Note Sequencer

The Note Sequencer has been modified to make it easier for developers to create and use sequences in programs.

Print Manager

The PrChoosePrinter call has been removed. Users should use the Control Panel to select printers. If an application makes this call, a dialog appears on the screen telling the user to use the Control Panel to select a printer. When printing in draft mode to a text printer, the driver translates QuickDraw II commands into command sequences for the printer.

QuickDraw II

QuickDraw II has been modified to function faster.

Resource Manager

The Resource Manager is an INIT file that is loaded when the Apple IIGS is started, and stays loaded when the system is running. The Resource Manager maintains the resource fork of a file. This is similar to the resource fork in the Macintosh. This is the first time the a resource fork has existed in the Apple II world. The format of the data is defined by the application. Resources are referred to by a resource type and resource ID number.

Sound Tools

Four new calls have been added to the sound tools, allowing greater flexibility when playing sounds.

Standard File

Standard File has been modified to fully support GS/OS path names. The following are GS/OS values, not the ProDOS FST values. These include: - 13,107 files in a folder - 254 characters in a file name (using new calls) - 508 characters in a path name - The List Manager is being used - Scan of AppleShare File Server volume every 8 seconds - Checks for write-protected volumes and folders - Displays the lock icon next to current path name - Calls to support multi-selection calls - Hook so applications can draw custom list items

Text Edit

This is a new feature of Apple IIGS System Software 5.0. It provides standard text editing for any application. It can be used as a complete text editor or as the core of a simple word processor. It is similar to Text Edit calls on the Macintosh. The following features are included in GS TextEdit: - Edit any amount of text that fits in memory (not 32K as in the Macintosh) - Mouse activity for text selection

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(single, double, triple clicking for text, words, lines) - Auto word wrap - Cut, Copy, and Paste - Some support of control keys for text manipulation - Stylistic variations in the text (fonts, sizes, style, color). - Text can contain a "ruler" to format the text - Four types of justification - Three kinds of Tab support - Programmer can limit the amount of information that can be entered - Vertical scrolling in a window - Automatic drag selection - It is FAST

Window Manager
Numerous changes speed things up and support the Resource Manager.

Apple IIGS System Disk 5.0: Overview
The main features include:
❏ Support for AppleShare File Server - Speed, speed, and more speed - A Control Panel and Control Panel devices (CDEVs) - Multiple simultaneous installations with the Installer - 5.25-inch Disk Driver is installed - Increased ToolBox support

Packaging
The AppleTalk Network User's Guide and AppleShare Apple II Setup Disk are included only in the System Software 5.0 update box. It will not ship with the Apple IIGS hardware system.

System Requirements
Apple IIGS System Disk 5.0 requires an Apple IIGS with a least 768K of memory when operating on a network. As a stand-alone system the 5.0 System Disk requires only 512K.

AppleShare and Network Support
One of the main new features of Apple IIGS System Software 5.0 is GS/OS support for AppleShare File Server volumes. To use the Apple IIGS with an AppleShare File Server, you need to use version 2.0 or later of the AppleShare File Server software.
There are a number of additions to GS/OS to support AppleShare. These include: - Booting GS/OS over the network - Creation of a 3.5-inch Server Startup Disk - An AppleShare FST (File System Translator) for GS/OS - A Control Panel File Server Chooser - Ability to auto-logon to a server - Server Logoff - Finder support of AppleShare

Network Booting
To use the Apple IIGS with an AppleShare File Server, you need to use version 2.0 or later of the AppleShare File Server software. If you have an existing AppleShare File Server you need to order:

Apple IIGS System Software version 5.0
This package includes a new "Apple II Setup Disk". This disk is a Macintosh disk that uses the Macintosh Installer to update the AppleShare File Server 2.0.1 server boot blocks to GS/OS. The boot blocks are sent to the workstation when the user requests network booting from the Apple IIGS. The disk is found in the back of the AppleTalk Network User's Guide that ships inside the stand-alone package. After the Macintosh has been updated, you can use the Apple IIGS Installer (located on the SYSTEM.TOOLS disk) to update the SYSTEM folder on the server hard drive.
All servers on the network should be updated to the new boot blocks at the same time. You should not have boot blocks from Apple IIGS Workstation Software and System Disk 5.0 on the same network. AppleShare File Server will start shipping with the new Apple II Setup Disk mid-summer 1989.

Local Booting
Using a 3.5-inch disk can speed up server boot times. There are two methods of gaining access to an AppleShare File Server from a 3.5-inch disk: - Local Network Startup - AppleShare on 3.5-inch Disk
The first method performs the same function as network

booting, and the second boots into the Finder.
Local Network Startup saves time and network traffic when booting an entire class of computers at the same time. The Installer update to allow faster network booting is called "Local Network Startup".
The Installer update that lets you boot into the Finder is called "AppleShare on 3.5 Disk". This type of disk is called a "workstation startup disk".

ExpressLoad
ExpressLoad is new with Apple IIGS System Software 5.0 and causes GS/OS to load the system and applications faster. ExpressLoad enhances the standard Apple IIGS System Loader and lets large applications load in a shorter time.
Developers can turn applications into ExpressLoad format using the APW tool called Express or the MPW IIGS tool called ExpressIIGS. A load file must contain resources and code segments in a specific order to be compatible with ExpressLoad. ExpressLoad checks files first to see if they are in the proper format. If the file is not in ExpressLoad format, the application is launched by the normal Apple IIGS system loader.
To save memory, ExpressLoad is loaded only on systems with more than 512K of memory. Before loading ExpressLoad, the system checks to see if there is more than 512K of memory. It will not ExpressLoad into a 512K system.

ToolBox
A number of the toolbox routines have been modified to increase speed. They include "special case" code that causes QuickDraw and other routines to operate faster, based on the parameters that were passed to QuickDraw. Programmers do not have to modify their code to support any of these "special case" routines.

Control Panel and CDEVs
The Apple IIGS System Disk 5.0 includes the Graphics Control Panel, which is similar to the Macintosh Control Panel and Chooser. The Graphics Control Panel is implemented as an NDA (New Desk Accessory). This type of DA is available only to Apple IIGS desktop applications.
The Graphics Control Panel is an expanded facility for controlling any number of system parameters. This functionality lets Apple and third-party developers add Control Panel "devices" (CDEVs). The Graphics Control Panel sets the same information as the existing Apple IIGS Control Panel (now called the Text Control Panel) which is accessed by using the Command-Control-Escape keys. Icons for all CDEVs look the same, letting you identify a CDEV quickly and easily.
CDEVs are located inside the SYSTEM folder, just as fonts and desk accessories:

/disk/SYSTEM/CDEV

Desk Accessories
Like the current Apple IIGS System Disk, Apple IIGS System Software 5.0 supports New Desk Accessories (NDAs). The system can now support 128 NDAs, thanks to scrolling menus. Desk Accessories are in the following folder:

/disk/SYSTEM/DESK.ACCS

SCSI Manager
The SCSI manager has been modified to provide a four-fold speed increase and provide additional SCSI support. The new driver is faster because it is loaded into memory and does not use the firmware on the card. When the driver was written, a number of new features were added:
❏ Full SCSI Device Support - 7 Physical Devices - 32 Volumes per Drive - Full SCSI Command Support - Access to Non-ProDOS Partitions - Support for Magneto-Optic Drives (with a driver)
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RTC HyperStudio

Roger Wagner has an open discussion with members of GEnie

*Apple II Programmers and Developers
RoundTable
Real Time Conference Transcript
Guest : Roger Wagner
: Roger Wagner Publishing
Date : December 4th, 1989
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<[A2Pro Eric] A2PRO.ERIC> I'd like to thank Roger Wagner for being our guest here tonight. As you probably know, Roger publishes HyperStudio, called the best new Apple II application since AppleWorks. I personally think it's just great <grin>, and can be used to develop some really amazing stuff. And that's what we're here to talk about tonight. We'll be discussing how to develop 'studioware' and use XCMDs to make your stacks explode with excitement. If you have a question, please type /RAI and wait for me to call on you. Roger, any opening comments?

<ROGER.WAGNER> Nothing big for the moment. Thanks to you all for coming to learn more about programming in HS. The best way to start, since I think you all are fairly familiar with the software itself, is to just start answering your questions.

<[Eric] E.MERRILL> Have you given some thought to developing a way to import stacks from <gasp!> Macs?

<ROGER.WAGNER> Reading Mac stacks is very problematic. The first problem is the screen re resolution. Since the Mac has 400 vertical screen lines, converting the screen would leave out half the information, and I think the results would be judged almost worthless. Then, there's the problem that most Mac stacks take a lot of memory (2-4Mb) and a hard disk. This isn't very standard for the GS. Then, there's the problem of Xcmds in 68000 code on the Mac. Not very encouraging, I know. But hey, I think we should get all those Mac people to start asking, "why can't I run HyperStudio stacks on my Mac?". By the way, I'd like to mention that those here tonight really have a good shot at those working on HyperStudio. Not only are myself and Eric Mueller here, but Michael O'Keefe is also here. Michael worked on the

paint tools and quite a number of other parts of HyperStudio.

<[Eric] E.MERRILL> Thanks.

<[Herb] H.HROWAL> Well, since I should probably get HyperStudio before I can start programming with it, what is the current version and price?

<ROGER.WAGNER> HyperStudio is $149.95, and is version 2.0. This includes 4 disks: HyperStudio (system disk w/ HS), HS.Demo (demo stacks), HS.Art (250+ clipart images), and HS.Sounds ("clip-sounds), and also the digitizing card and microphone. For anyone with version 1.0 or 1.2, they should already have received the 2.0 update.

<[Herb] H.HROWAL> Thanks.

<[Tyler] A2.TYLER> So the external speaker is no longer included, and if not why?

<ROGER.WAGNER> The introductory price and configuration on HyperStudio was $129.95, and included the speaker as an "offer you couldn't refuse." However, that's a lot of product on our end at that price. When we put the price back to a more realistic level, we made the speaker optional since some people said they already had a speaker of some kind. There is still a coupon in the box for $9.95 for the amplified speaker for those who don't have an external speaker of some kind.

<[Dean Esmay] A2PRO.ERIC> Roger, when are you going to release a 'run-time version' of HyperStudio so that I can release my own stacks with a version to let others use it without HS?

<ROGER.WAGNER> Good question! Basically, our first priority was to get the software finished. Now that this is done, I have talked to the authors about a run-time module. This will take a little while to finish up, but shouldn't take very long. I'm hoping within the next month or so.

<[Tyler] A2.TYLER> Excellent!

<[Dean Esmay] A2PRO.ERIC> Thanks Roger!

<[Bryan] B.PIETRZAK1> I don't have HyperStudio (yet), could you tell me a little about Xcmds, and how they integrate with HyperStudio? (from a programmer's viewpoint)

<ROGER.WAGNER> Sure! The theory of operation is really simple: When HS loads any particular stack, it also looks for a file in the same directory as the stack named HS.XCMD. If it finds it, then it loads it into memory. Part 2: When a button is created, you can link the button to the Xcmd function, and define a string of text that will be passed to the Xcmd code when that button is pressed. Every button can have its own command string. Now, when the user clicks the button, HyperStudio calls the loaded code segment, and passes to it a pointer to the command string. It also passes a list of entry points for some basic HS functions, such as move to next card, previous card, find card #, find text, refresh screen, etc. When the Xcmd finishes, it returns via an RTL to HS, which continues with whatever it was doing. The only requirement for an Xcmd is that it be able to pick up the X and Y regs for a point to the table of other pointers. Thus, you can write Xcmds in assembly language, C and Pascal. Ron and I are also going to discuss what needs to be done to make Micol BASIC a viable language for Xcmds.

<[Tyler] A2.TYLER> Neat!

<[Bryan] B.PIETRZAK1> Are they dynamic? How well does it run over a network? Does HS go back to the disk often (enough to aggravate :)?

<ROGER.WAGNER> The commands are not dynamic, and one of the nice things about HS, as with many of our products, is that it is not disk-intensive. Once in memory, that's it. Only loading another stack needs the disk. HS runs very well on a network, and there are several schools that I know of currently running it with AppleShare.

<[Bryan] B.PIETRZAK1> When programming the Xcmds (I use Pascal), are special headers needed, or do I write it using guidelines laid out in the manual (maybe I should buy it before I ask :-)?

<ROGER.WAGNER> I haven't written the Pascal Xcmds myself, so I can't tell you exactly. I did just receive a suite of sample Xcmds from Ken Kashmarek, that provide new versions of Eric's Exerciser in Merlin assembly, APW assembly, APW C, APW Pascal, and TML Pascal. I do know that Pascal takes some special handling for things like dialog boxes, etc., but no more than for any other GS program using

the language. These files will be available on Call Apple's Apple Crate after the next issue, where they will be the subject of an article, and I assume they'll be available here also.

<[Bryan] B.PIETRZAK1> Ok, there was something else, but I forgot. Thanks.

<ROGER.WAGNER> By the way, I should mention: for those familiar with the current Xcmd setup, (you can only have one Xcmd per stack), Ken Kashmarck is also working on an Xcmd disk (separate product) for those interested in this, that will have a "master" Xcmd loader for using multiple Xcmds in a stack, plus a number of new Xcmds for things like reading CD-ROM discs, more SHR tricks, and some other goodies.

<[Tyler] A2.TYLER> Outstanding!

<[Bryan] B.PIETRZAK1> You know, I have HS on order, but I never really knew what it was... now, I can't wait to get it! Geez, more of my time spent on something other than school! Thanks!

<[Jay Jennings] A2PRO.ERIC> Roger, hi! When will we see an 8 bit version of HyperStudio?

<ROGER.WAGNER> Sorry to say, not likely. HS is designed to really make the GS stand up and salute! The limited memory in the IIe and lack of sound abilities are a problem. However, if an industrious software author came to me with something that looked promising, I certainly wouldn't turn it away! (hint, hint)

<[Jay] A2PRO.ERIC> =:^) Thanks Roger.

<[Eric] E.MERRILL> Roger, what would you think about expanding HS to allow multiple palettes per screen, so we aren't limited to 16 (dithered) colors?

<ROGER.WAGNER> Well, here are the problems: at the least, we can't put two palettes side-by-side. That's a hardware limitation. Vertically, we could have 16 palettes on the screen, but managing these might be very confusing for the average user. I would be more interested in supporting 320 mode graphics, but maybe there's some interest in multiple palettes on the same 640 screen. Do you have some comments on this Michael?

<M.OKEEFE1>The big problem for multiple palettes is, as Roger said, the user interface. We are looking into 320 mode and a palette editor.

<[Eric] E.MERRILL> Are you familiar with the interface used by Paint.256? It has a really nice method of allowing the user to select different palettes...

<ROGER.WAGNER> No, I haven't seen it. Michael?

<M.OKEEFE1> I haven't seen in either.

<ROGER.WAGNER> Isn't Paint 256 going to be BeaglePaint?

<[Eric] E.MERRILL> Gee... I didn't know that...

<[Ron] MICOL.SYSTEM> Hi Roger. I read a rumor in (I think) a recent MacUser which mentioned that Apple might release a HyperCard for the GS. Can you please fill me in on the advantages of Hyperstudio over Hypercard?

<ROGER.WAGNER> I obviously can't say what HyperStudio might do differently than a hypothetical Apple product, but I can compare HS to HC on the Mac, at least to a small extent. HS is not an HC clone. I deliberately started with a blank piece of paper without even reading about HC or looking at the program, and asked myself, "what should hypermedia on the GS be like?" My first concerns were for ease of use on the level of a Print Shop, good graphics, and very importantly, a way to instantly add a sound to a stack someone was creating. In many ways, the digitizer card was really the start of HyperStudio. After the basic outline was done, I contacted Apple to see if it was ok to use words like "stack", "home card", etc. in the interest of making it an easy transition for those who had used HC on the Mac. They said ok, and the Apple user interface itself creates some more similarity.
Here are the basic differences: HC is much more database oriented than HS. We don't particularly try to do card sorting, calculations, etc. HS, on the other hand, is much better at doing things like sound and animation. In general, many of the things that would be add-ons in HC are built into HS. For example, the sound recording part, laser disc control, touch screen drivers, animation - all those would require purchasing $100's worth of extra programs and hardware on the Mac. Many people ask about scripting in HS. We deliberately made HS "auto-scripting." That is, connecting buttons, attaching sounds, animations, and so on all happen automatically as you add objects, and select actions from menus. This creates an environment where you can do things very quickly without having to do a lot of detail work.
People I've talked to that have used both HS and HC have said that HS is much easier to create things in. If you do want to do advanced programming things, the Xcmd ability in HS opens a door to a wide variety of extensions and special functions. As came up earlier, I think you can also imagine what HC on the GS would likely to be. Apple would be under a burden to make the GS HC as much like the Mac as possible. If you've ever seen very many

ports, you know that this usually compromises the destination product. A Mac without 2-4Mb and a hard disk isn't even a real Mac by current standards. Most GS machines would have a hard time easily (comfortably) running Mac stacks with the typical GS setup. On the other hand, HS runs very well on a standard GS, and if our run-time package does what I think, I believe you'll be able to run some stacks on a 768K machine. Are there any particular areas I haven't covered that you have questions about (sorry to be so long in the answer)?

<[Ron] MICOL.SYSTEM> Thanks Roger, you've answered all my questions.

<[Jeff] APPLIED.ENG> Hi Roger, it's good to talk to you again. I enjoyed meeting you at the Developer Conference held here at AE. My question is about HS and sound and Midi. Any chance of updating the Sound Shop program to support more formats? Also, any plans for future Midi support (ala Audio Animator)?

<ROGER.WAGNER> The 2.0 version of Sound Shop does support more sound file formats than 1.2, so for example, Sonic Blaster is now supported. We are working on a new version that will support compressed (ACEd) files, so that will be coming also. Midi is very interesting to me, and we bought a midi keyboard and interface in hopes of adding some support for that. In fact, the author of Sound Shop was originally working on Midi things when I distracted him with HS. I hope we'll be able to do something with this, but it may be a little later. I haven't seen Audio Animator, but if you want to swap another HS, maybe we could get Dave working a little sooner!

<[Jeff] APPLIED.ENG> Ok, I'll check on it. Thanks.

<[Bryan] B.PIETRZAK1> What are the limitations of Xcmds? Could I write a stack to backup hard drives using multiple Xcmds (when that's available)? I've also got a general question about interfaces, but I'll come to that in a minute.

<ROGER.WAGNER> Xcmds are essentially your own program, and so have almost no limitations per se. How much is appropriate to do within HS is another matter, but there's no reason I can think of. Do you have any input on this Eric?

<[A2Pro Eric] A2PRO.ERIC> Hmmm - I don't there would be a definite limit... other than disk and memory space, of course. I think Ken Kashmarek's multiple-XCMD handler would let you make a HD backup program with several Xcmds, if you wanted.

<[Bryan] B.PIETRZAK1> This is kind of general, I've used "hypermedia" very little, but it seems to me that it is in conflict with Apple's Human Interface Guidelines. I use HyperScan on a Mac II the other day and it took me a few minutes just to figure out how to scan something. Is Apple pushing HIG or Hypermedia more? Does anyone understand what I am trying to say?!?!

<ROGER.WAGNER> Yes, I understand exactly. Bruce Tognazzini, father of the HIG had an article in the last Apple Viewpoints about this very topic. The HyperCard and HIG interfaces are different. I personally have some gripes about HyperCard, for example autosaving while you just want to experiment with what's on the screen, and I specifically tried to be closer to the HIG design than HC. However, what you're getting at may be more generic, that is, the basic differences in program design. I don't think that HC or HS has to be the only way to create programs in the future. HS certainly isn't the ultimate shell for communications programs, spreadsheets, etc. HS is best used for what it is best suited for: communicating ideas and information, and also just plain having fun with the computer.

<[Bryan] B.PIETRZAK1> I think that for some purposes Hypermedia is great, but, I agree, it has it's place, and that is not everywhere. Thanks for the feedback.

<[Eric] E.MERRILL> Will a future version of Hyperstudio allow the creation of animation files (Paintworks-type)? Also, wouldn't you like to go to the trouble of allowing Fantavision GS movies to be imported? :-) Would these require too much memory?

<ROGER.WAGNER> As you know, HS can currently create animations within the stack, but you're right, it doesn't save the final output as a single file that could be moved around as a single unit. It's funny you mention Fantavision GS - I was talking to Scott Anderson, author of FGS today, and he's very interesting in working with us in this direction.

<[Tyler] A2.TYLER> Fantastic!

<ROGER.WAGNER> From our discussions today, the main problem is that FGS is 320 mode, and HS is 640. He thinks a 640 mode of Fantavision is pretty easy. If so, then we could have something like this very soon. Also, with Xcmds, I don't see why we couldn't play 320 mode Fantavision files pretty easily. Michael - how hard would it be to output a $C2 animation file?

<M.OKEEFE1> Right now, when an animation sequence is created in HS, only a portion of the screen is used (the portion the user selects). This is differ-

ent from the way regular $C2 (Paintworks-style) animations work.

<ROGER.WAGNER> I just realized - with the HS Xcmds being able to move to next card, etc., it seems this would be a very easy Xcmd to create. Not all Xcmds have to be used by the final stack user, there's no reason Xcmds couldn't be used as utilities within HS itself by the stack creator, kind of like Xmcds. I suppose an NDA could also do this, but I think this is something an Xcmd could do better because of its access to internal HS routines. By the way, I want to say - I think Xcmds are an area that could really blossom with a place like A2Pro. We provide the source files for everything on the disk in the hopes that people will modify them. Please feel free to enhance the source we provide, and post your im-

provements here. For example, surely some of you could improve the slide show command to show a single picture by name?

<[Eric] E.MERRILL> Has HS turned out the way you first envisioned it? What is better than you first thought possible? What would you like to improve?

<ROGER.WAGNER> A very nice and insightful question. Believe it or not, I was really surprised myself by how well the program turned out. You know, you have a certain idea when you're outlining things, but the final parts of the product fit and worked together so well, I was pleasantly surprised by how much you really could do with it. Best of all, I think that think that it is really great to have a program that can actu-

ally change the way people think of the GS in a positive way. There are areas I would like to improve. I want to continue the idea that everything can be chosen from menus and done quickly and easily, while still adding more options and features. We want to add, for example, a lot more options in the Button Actions dialog box. The big question is not writing the program itself, but rather what kind of user interface will still let 1st graders use it (yes, they are!), and advanced users too, all feeling like the program does what they expect it to. Suggestions and ideas are welcomed!

<[Tyler] A2.TYLER> Actually, Roger has done an excellent job of addressing my question, without me actually answering it. I was interested on what he might be able to disclose on the future development of HyperStudio. Roger, is there anything that you might have not spoken about yet?

<ROGER.WAGNER> I think I've covered a lot. I've made a list of about 150 items that *could* be added to the software. It all comes down to trying to give them priorities, and the task of trying to figure out which ones will help the most people first. We really would like to do a 320 mode, and I want to add more drivers for video discs, and also make some of the more subtle procedural operations smoother. And, of course, we'll try to make it easier to edit the functions of existing buttons, although it is true that you can delete and recreate in literally seconds. There's a funny moral/something here, by the way. It's easy to get spoiled with computers, always wanting them to do more and faster. However, with more and faster, most of the time, what you're already doing gets slower in the process, while the computer has to think about (and use up memory) with the fancy stuff. I've noticed that as the hardware to handle graphics word processors gets faster and more memory, my old Apple II+ word processor, the Write Choice, is now blindingly fast and efficient. In terms of actual productivity, sometimes simple is actually more productive. Next time you're doing something in HS, and wishing it was faster, try an experiment and actually time how long whatever it is takes. My guess is it's only a few seconds. Maybe all of 15 minutes to create an entire stack if all the graphics, etc. are on hand. Would doubling the size and making the software disk intensive be worth a few extra features? Sorry to get out the soapbox. Didn't really mean to, but it is something I think about in trying to balance everything for the best final product possible.

<[Tyler] A2.TYLER> Well, since you spoke some of your philosophy here, I am going to add some of mine to it. My feeling is that we should never let Apple know that we are content. If we

do, we will NEVER see improvements in the Apple II line. We should always want bigger and better after all, this attitude has given the Mac users bigger and better things. I feel that the Apple II is an extremely capable machine, and if we don't keep asking for more, we may never see what these capabilities can do. Any comment?

<ROGER.WAGNER> I certainly didn't mean to imply we should seem to be content with the status quo. The *last* thing Apple Computer thinks at this point is that we're content! :)

<[Tyler] A2.TYLER> Thank goodness! Anyway, thank you for an excellent product that exploits the capabilities of the Apple IIgs and really ties together the different areas that the machine has to offer.

<ROGER.WAGNER> Say, Mark, when is RWP gonna publish the best font program ever?

<[A2Pro Mark] A2.MARK.C> (<blushing> When it is finished... I hope!!!) Anyway, I'm working on what I consider to be a pretty basic stack. It'll have about 650 cards, all on the same background: three buttons, (Home, Back and Forward), a graphic sample of the font (a graphic object), and a short text snippet describing it, with its specs (a text object).

<ROGER.WAGNER> Actually, I really have been playing with a stack to show the different font styles, just so I could have a good reference when creating stacks. How come the GS font chooser interface doesn't show a font sample like the Mac?

<[A2Pro Mark] A2.MARK.C> I wish I knew the answer to that one, Roger...

<[A2Pro Eric] A2PRO.ERIC> I'd like to thank Roger for being here tonight... Roger, any closing comments?

<ROGER.WAGNER> None in particular. I do hope you'll upload those source files, and let's get a dynamite Xcmd section going here in A2Pro. It's an area with a lot of potential, and an area where even a casual programmer can really do some neat things in a few evenings.

<[A2Pro Eric] A2PRO.ERIC> Okay... thanks a bunch Roger!

<ROGER.WAGNER> Thank you!

<[A2Pro Mark] A2.MARK.C> Thank YOU!!!!!

<[A2Pro Eric] A2PRO.ERIC> Clap clap clap!!

<[Jeff] APPLIED.ENG> Great RTC! <clap> <clap> <clap>

<[A2Pro Eric] A2PRO.ERIC> And THANKS a BUNCH Michael O'Keefe for the cameo appearance!

<M.OKEEFE1> No problem!

End of Transcript

To sign up for GEnie, follow these simple steps:
1. With your computer and modem, dial 1-800-638-8369 or use the PSS NUA: A219601282.
2. When you connect, type HHH and hit the RETURN key.
3. The computer will type U#=. You respond with XJM11706,GENIE.
4. Now answer the questions and you will be able to use GEnie the next working day. Be sure to have a credit card or checking account number handy when you sign up.

ROCKVILLE, MD, Aug. 29, 1990 — The GEnie[SM] service, one of the leading online information services, has announced the introduction, effective Oct. 1, 1990, of a flat subscription rate of just $4.95 (U.S.) per month including unlimited, non-prime time access to more than 100 products and services.

SIGN-UP FEE ELIMINATED

The $29.95 sign-up fee for the GEnie service also has been eliminated for all new subscribers effective immediately. As a result, there is no real cost to subscribe to the GEnie service, except for the first month subscription rate of $4.95 (U.S.).

NEW NON-PRIME HOURLY RATE

The rate for U.S. access to those GEnie service products/services not covered under the flat monthly rate — such as all personal computing bulletin boards, all software libraries, financial services, value added services, chat lines and Real Time Conferences, Computer Assisted Learning Center (CALC), and multi-player games — has been set at just $6 per hour during non-prime time for all three access speeds (300, 1200 and 2400 baud). This is a $4 per hour reduction in the current 2400 baud non-prime time rate. The prime time rate remains at $18 per hour for all three access speeds.

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❏ You will need to have a PSS account to access GEnie from the UK. PSS adds additional charges to those shown. ❖

SoftCat Corner

NEW PRINT SHOP UPGRADES

There are two ways to get this, one is to contact Broderbund direct, pay them dollars; or pay MGA £27.95 and give us your complete old version as a part-exchange.

IIGS PROGRAM DEVELOPMENT NEWS

A new tool is now available to serious Apple IIGS software developers. I say serious, because you need a Macintosh to run the system plus a copy of the Mac MPW IIGS Cross-Development System. "AppMaker/GS" is from Bowers Devt in Massachusetts, costs *£295.00, and for reference; MPW + MPW IIGS X-Devt. costs an extra *£695.00 giving tools, assembler, C, and Pascal interfaces. I don't know how much a Mac costs, but I guess you'd have to be pretty serious to use this setup to write a GS application... (Details on request - don't worry; we're not expecting too many replies!).

£14.95 DTP?

Well, I wouldn't exactly call Expert Software's new "Personal Publisher" (PP) a true DTP program, but you sure can produce some neat stuff for an even neater price. Expert Software is a new New York company who seem to have taken over Softsync's "Personal Newsletter" when Bloc took over their main operation and moved it down to Florida.

With PP you can create newsletters, brochures, awards, certificates, OHP slides, calling cards, announcements, ads, posters, etc... PP combines text, graphics and page layout, with built-in word-processor, free clip-art, multiple-column page layout & more.

Not copy-protected, ProDOS, works on hard drive or RAMdrive if available, six fonts, uses Print Shop graphics, and comes with free Commodore-64 and IBM-PC versions in the same box! (Apple version requires //c, IIGS, or 128K enhanced //e - for more info see Apple 2000 review 4/90 pp18-19 - note: it seems that PP is a slightly cut down version of PN, less included clip-art for example - maybe Peter Stark would like to do a follow-up mini-review comparing the two?).

ASSEMBLY LINE - TEN YEARS ON...

"Apple Assembly Line" is the only newsletter dedicated to Apple II assembly language. If you're into this you'll be pleased to know that it has been published monthly since 1980! $36pa airmail worldwide. Contact; S-C Software Corp, PO Box 280300, Dallas, TX 75228 (0101 214 324 2050).

IMAGEWRITER II & IBM

If you've got an IW-II and an IBM-PC, did you know you can use them together? So far we've found three programs which include direct support; Q&A, Bannermania, and New Print Shop. A suitable cable costs just £12.95. Most text-only programs work great too... I use my IW II with both a IIGS as well as an AT-class IBM clone. My original setup comprised a 2-way data switch at the IW-II end, and this proved fine for the above-mentioned PC software as well as all my Apple stuff. This is an ideal situation because the IW-II stays set as standard for

both computers, and no switch-changing is necessary. However, next I wanted to use the IW-II to draft proofs for my PC DTP program. Not surprisingly, GST (an English firm) don't provide a printer driver for Apple ImageWriter. What was supported, however, was Epson FX. So, doing the reverse of the norm, I installed an "ImageMate" (also from Orange Micro) into the IW-II, and turned it into an Epson FX-800! I reconfigured the DTP prog and had instant success! The only trouble with this setup, however, is that installing ImageMate requires that you reset a switch in the IW-II to tell it to use the internal expansion board. Its not too much trouble tho', as all you have to do is lift the cover & flick switch 2-4 up or down depending on whether you want to

use Epson or Apple mode! ImageMate comes with an adapter to enable you to use a Super Serial Card cable with the IW-II, - you won't need this if you've already got MGA's PC/IW-II cable (£12.95).

NEW APPLEWORKS PUBLICATION

"TimeOut-Central" is a brand-new 3.5"-disk-based magazine for AppleWorks users. Note; don't bother asking for a 5.25" version - they don't do it, instead ask someone to convert it for you. $42 for six issues (UK postage may cost more), from TimeOut-Central, P.O.Box 11250, Overland Park, KS 66207 - 0101 913 469 6502 (fax 6507).

NEW USES FOR OLD APPLES

All those old Apple][s sitting around in offices, schools and universities can once again become productive even in this IBM-PC based (biased?) world. We have recently helped a company to utilise a stack old][s in a predominantly PC-based environment. Their problem was one of input; - they just didn't have enough machines for all the word-processing and database work they were involved with. Considering that they had some][s & //es laying around almost unused, I suggested that they dust them off and put them to work. Now they have doubled their input workstations at really minimal cost.

How? - Simple, - they bought AppleWorks, PlusWorks, CrossWorks and a super serial card. They set up databases in AppleWorks with exactly the same field names as their Q & A databases (Q & A is a powerful IBM-PC database/word-processor system from Symantec), then installed copies (we supplied a job-lot of old AppleWorks v1.2 so that each system had its own licensed copy with manuals) of Apple-Works onto their //es (straightforward), and onto][s (using PlusWorks). As they already had 80-column and various RAM cards in the][s, there was no outlay required for additional hardware.

Now they can use the AW word-processor to create raw documents, and its database to input mailing list data. The disk files are then transmitted from one of the //es with a super serial card direct to one of their PCs using the CrossWorks cable/software. At the PC end, the PC CrossWorks software is configured to receive AppleWorks databases and automatically convert them to IBM-PC dBASE III format, and to receive AppleWorks word-processor files as standard ASCII text.

Next the PC team leader takes the dBASE files and easily runs them into Q & A, (which imports dBASE files automatically), either merging the data into existing databases, or creating new ones. Similarly, Q & A reads the ASCII text files for final layout & printing, or in some cases the ASCII text is taken directly into their PC desktop publishing system, (as happens with catalogue entries).

Now, this company is even considering purchasing additional cheap second-user Apples for use by part-time typists as a real alternative to providing expensive PC keyboarding systems...

Yours with good cheer ......
Jon Gurr
(Apple II Product Manager, MGA SoftCat)

Apple II Peripherals: Quick Reference Chart

X means that the peripheral product is compatible with the CPU. The footnotes explain the numbers.

Item	Apple II CPU II Plus	IIe	IIc	IIc(new)	IIGS	Macintosh CPU 128K	512K
Plus							
Drives							
Disk II	X 1	X 1	9	9	X 1		
DuoDisk	X 2	X 2			X		
Unidisk	X 2	X 2	X	X	X		
Unidisk 3.5	X 3,7	X 3,5		X	X		
IIc External	X 2	X 2	X	X	X		
Apple 3.5				X	X	X	X
Apple 5.25	X 11	X 11	X	X	X		
Profile (5M,10M)	X 4,7	X 4			X 4		
Hard Disk 20SC	X 6,7	X 6			X 6		X
Cards							
II Memory Expansion	X 7	X			X		
IIc Memory Expansion				X			
IIGS Memory Expansion					X		
Super Serial	X	X	8	8	X		
Parallel Interface	X	X			X		
80-column		X	8	8	8		
Extended 80-column		X	8	8	8		
Apple Modem 300/1200	X	X	X	X	X	X	X
Apple Personal Modem	X	X	X	X	X	X	X
Imagewriter	X 12	X 12	X	X	X	X	X
Imagewriter II	X 12	X 12	X	X	X	X	X
Daisy Wheel Printer	X 12	X 12	X	X	X		
LaserWriter	X 12	X 12	X	X	X	X	X
Monitors							
II	X	X	X	X	X		
IIc	X	X	X	X	X		
ColorMonitor IIc, IIe	X	X	X	X	X		
ColorMonitor 100		X 10	9	9			
AppleColor RGB	9	9	9,13	9,13	X		
AppleColor Composite	X	X	X	X	X		
Monochrome	X	X	X	X	X		

Footnotes:
1 - Requires Disk II controller card
2 - Requires Duodisk/Unidisk controller card
3 - Requires Unidisk 3.5 controller card
4 - Requires Profile Interface Card
5 - Will auto boot on an enhanced IIe
6 - Requires Apple II SCSI Card
7 - Requires 64K RAM for Prodos
8 - This function is built into the Apple IIc
9 - A third party solution is available
10 - Requires Extended 80-Column AppleColor Card
11- May be daisy-chained from a Unidisk
12- Requires a Super Serial Card
13- Limited color capability

Note: "IIe" stands for either the unenhanced or the enhanced Apple IIe.
"IIc(new)" refers to an Apple IIc with memory expansion socket.
"512K" indicates both Macintosh 512K and Macintosh 512K Enhanced.

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Apple IIGS: A Descriptive List of Interrupts

To take advantage of the power of the Apple IIGS, its designers installed a new set of interrupts. An interrupt is a hardware signal that tells the computer to stop what it is doing and devote its attention to a more important task.

When an interrupt occurs, the microprocessor jumps to an interrupt-handling routine through a fixed vector in the computer's memory. This routine has to put the state of the machine into a standard configuration, determine the type of interrupt that occurred, and then (if appropriate) command a jump to the user's interrupt-handling routine.

Here are the Apple IIGS interrupts and their causes, the actions during the interrupt, and the devices causing the interrupt:

RESET: Caused by startup or RESET keypress. Forces emulation mode. The interrupt is processed by firmware, then vectors to user link. Cold start attempts to boot a disk. Warm start vectors to user links; this link normally points to a BASIC cold start routine. Device: Power switch or RESET key.

NMI: Non-maskable interrupt. Vectors to user link. No NMI interrupts are used by the Monitor.

ABORT: Vectors to user link. If none, then vectors to break handler that displays the address and opcode of the code being executed at the time the abort pin on the 65816 was being pulled low. The ABORT interrupt can be activated by hardware installed in the memory expansion slot only.

COP: Vectors to COP manager vector in RAM, which points to firmware. If the COP manager is not installed, the firmware displays the COP message. This occurs via a software COP instruction only.

BRK: In emulation mode, the interrupt vectors to the interrupt (IRQ) handler and then to the break handler. In native mode, it vectors directly to a break handler. This occurs via a software BRK instruction only.

IRQ: Interrupt request. The remainder of this list describes the IRQ interrupts:

IRQ - Apple Talk: This interrupt has the highest priority because its code is very timing-intensive: data can be lost if the SCC is not read within 104.167 microseconds (230K bd) after an AppleTalk SCC interrupt occurs.

IRQ - Serial Ports: If in interrupt mode, data will be lost if the SCC is not read within 1.094 ms (19.2K bd) after the interrupt occurs.

IRQ - Scan Line: Interrupts, at the most, every 63.694 ms. The interrupt is caused by the video counters counting down to zero, which occurs when the beam reaches the right side of the scan line.

IRQ - Ensoniq Chip: Interrupts when the waveform buffer has been depleted. Because there are 32 oscillators in the chip, there are 32 possible interrupts from the chip.

IRQ - VBL: Interrupts every 16.67 ms. Interrupt occurs when the beam is retracing from the bottom-right corner to the upper-left corner of the screen.

IRQ - Mouse: Interrupts only if the interrupt option is chosen. The interrupt options are movement, button press, or VBL.

IRQ - Quarter-second Timer: Interrupts every 0.2667 seconds. Used by AppleTalk to trigger event processing.

IRQ - Keyboard: Interrupts if a key is pressed.

IRQ - SRQ: If an Apple DeskTop Bus device requires servicing, an SRQ is issued. Control is passed to the SRQ Manager.

IRQ - Desk Accessory Manager: This is called at a simultaneous press of the keys OPEN-APPLE, CTRL, and ESCAPE.

IRQ - Flush: If OPEN-APPLE/CTRL/DELETE is pressed, the keyboard micro clears its internal type-ahead buffer, issues a Flush command to external keyboards, and causes an interrupt.

IRQ - Micro-abort: If the keyboard micro detects a fatal error and the fatal-error interrupt occurs, the system is interrupted.

IRQ - Clock-chip: Interrupts every second.

IRQ - EXTINT: Interrupt generated by a special device connected to the VGC.

IRQ - External cards: Interrupt as defined by the card manufacturer.

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The Nibbler

❏ The first shock has now passed, and the extraordinary idea of a low-cost Macintosh is now firmly here to stay. The first reports say that the Classic is selling like hot-cakes. Not at all surprising really. It is what we have all been saying for so long that all the Apple machines have been too expensive to date. I hope this trend will continue and spread itself to the Apple II line as well! No doubt those who bought the MacPlus recently while it was on special offer have forgiven Apple for selling the Classic a week later at a lower price!

❏ Claris has started the predictable forthcoming price war by lowering its prices. Things can only get better from now on for all of us, the users, though I expect that peripheral hardware will take a bit longer to see its long overdue price drop. We should see SCSI drives as the first to tumble. After all, it cannot cost more to make a drive for the Macintosh as one for the IBM.

No software apart from the System disks is to be packed with the Classic. I remember the early days when a Mac was packaged with MacWrite and MacPaint in order that users could actually start using the things as quickly as possible. It is a pity that something could not be included in the box to get users started off on the right foot. They are liable to just go and buy anything they can find on the shelves to get themselves started.

I also understand that the delayed HyperCard 2.0 will not be bundled in the boxes from now on. Instead, a run-time version will be included, and the full authoring package will have to be bought as an extra. This is not really a problem of course, as I am sure that very few existing users actually authored stacks and would in general only run stacks.

❏ Reports are encouraging about the print quality of the new Personal LaserWriter. It appears to be even better than the NTX. This means that those mucky grays of the LaserWriter Plus are a thing of the past. All we need now is for the cost of the toner to drop to a reasonable level. Once we have System 7.0 finally installed the Personal LaserWriter SC will really come into its own. This will make a Classic, a LaserWriter and a copy of PageMaker cost around £2500. Desk Top Publishing for less than £3000, can't be bad!!
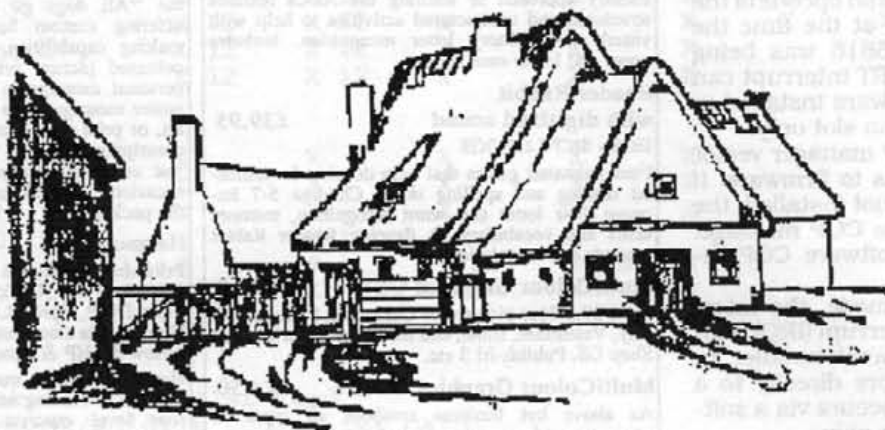
❏ While on matters Macintosh, it is worth mentioning that if you are going to run a Classic or an LC on an AppleShare Network you will need to use the new System 6.0.7 which has been just released. I just hope the existing software likes 6.0.7 as well ...

Compatibility problems have been with us since the Apple II days, and it is no longer easy to keep up with all the programs and Inits that will not work with each other. Having had a problem recently with PageMaker 4.0, I did some research and found that if you are using Pyro it must be version 4.0 or later. You must not use SuperClock 3.1 nor On Cue 1.2.1, and if you are using SuitCase it must be Version 1.2.3. The golden rule seems to be to remove everything if you get problems and start from scratch adding the Init's back one by one.

❏ Quark Xpress 3.0 has finally been released. Those owning an earlier version of Xpress can update to 3.0 by getting an upgrade from Computers Unlimited. The upgrade will update your installed version of Xpress 2.1 or later, and produces a single working copy of the new program. The program disks are copy protected and will only install a single working copy of the program. The cost of the upgrade varies and depends on which version of Xpress 2 you have currently installed. Registration is made by inserting a disk during installation and returning the disk to Computers Unlimited.

❏ Reading the fascinating history of Apple in the Souvenir edition of Apple2000 that we all received recently, I came across that elusive monitor call in the SE's which displays a picture of the development team. Having access to three of these SE things, I tried it out. Sure enough, it worked, and three pictures of the grinning team cycled slowly in front of my eyes. To get this to display for you, you must have one of the earlier SE's, the ones with the 800k drives. Press the programmers switch, the one behind the reset switch, and at the prompt type 'G 41D89A' and then press the return key. Stand back and enjoy the show! They put the signatures of the development team into the plastic of the original Macintoshes. I wonder what hidden message they have put into the new Classic?

The communications revolution never really happened the way we thought it would. From the start there were some of us who enjoyed using modems and getting large phone bills, and the rest who wisely chose not to participate in this new fangled way of wasting money. However, there has been a steady growth over the years and we have seen the rise and fall of systems that we could ring up and contact. Our own TABBS (formerly BABBS), continues to have a steady growth and satisfies many callers each day. The Force sadly has come and gone, Telecom Gold never having made it into the system it ought to have been. But we now have CompuServe firmly installed into our comms consciousness and soon we should have GEnie as well. At long last GEnie have opened access to those outside of the States. They have not yet fixed us up with an easily accessible port in the way CompuServe lets us dial up our nearest DialPlus node, but it can be accessed through PSS now. We have been told of a PSS NUA which apparently should be connecting at UK rates, but have had no means of verifying it as yet. It is important that it can be accessed at UK rates as IPSS rates can cost you up to £90 an hour! However for those interested and with a PSS account, try A219601282. For details of GEnie charges check out page 34 of this issue.

Of course there are other systems that can be called with a modem and some software. I regularly check my bank account with a quick call, and of course checkout my E-mail on AppleLink, CIS and not least TABBS. I suppose the Fax machine has made a difference to most peoples lives by now, but the modem has a greater potential for accessing information and transmitting data.

❏ Reading the piece in Apple2000 a couple of issues ago about using normal double density disks as high density disks I decided to give it a try. Some five or six disks have been drilled and tried so far and I only got one failure amongst them. This may not be a very scientific experiment, but it did show that it could be done. High Density disks are still very expensive, it would be worth drilling

out a box of ten and try triple formatting the disks. If they survive this process I think they should be safe to use as HD disks for normal use. Archiving important data should not of course be entrusted to disk formatted in this way. I have known branded disks that would not survive triple formatting in this way.

With more and more SuperDrives in use now, and of course with all the new low cost machines including them, this kind of tip can save pounds in media costs. I gather that you can actually get a handy device to make the holes in the disk for you in the States, how soon till we see them on sale here in the UK?

After reading how HD disks are made with only marginally greater coercivity, and that the real HD disks are normally rated at 2.0mb, to use a standard disk at 1.44mb does not seem too much out of order.

❏ Apple2000 celebrated its tenth birthday this year, and the Macintosh its sixth. We have been with you through the many launches of new computers from Apple. We are promised even more next year, but I suspect that from now on we shall never see another Apple II see the light of day. Oh well we tried! **The Nibbler**

NEW KIT

//e COLOUR TV ADAPTOR *£39.95
We now have a brand-new UK TV adaptor so you can use your colour TV for games, and educational software, etc. The device fits inside the //e case using adhesive pads, and simply plugs into to auxiliary video connector on the motherboard.

Greeting Card Pak 10X53X £8.95
50 sheets continuous heavyweight paper with 50 matching greeting card envelopes. Specify Kelly Green, Cherry Red, or Natural Parchment.

Holiday Assortment Pak 102730 £12.95
Red, green and parchment gets one and all in the holiday spirit...you can't go wrong with 40 sheets each of Natural Parchment, Kelly Green and Cherry Red. Includes 25 matching greeting card size envelopes in each colour.

Holiday Stationery 10111X £8.95
Just the thing for Christmas and holiday correspondence...four beautiful and festive stationery designs printed in three colours. Perfect for holiday letters and writing to Sanata. 100 sheets per pak - specify Santa's Toys, Santa's Elves, Mr. Snowman or Sleigh Ride.

Holiday Stationery Assortment £10.95
As above, but 25 sheets of each design.

Holly Banner Roll 108019 £9.95
Decorate for those holiday parties with banners printed on our special Banner Roll paper. These rolls have no horizontal perforations, so you won't have to tape the pages together. The banners look and hang better. Perfect for parties, shops, meetings, sales and that special cheery message. Only available in the one holly leaves/berries design, (other plain colours and non-holiday designs also available).

Why use Logo? £1.95*
An overview of the Logo language in education. 28pp book.

MacTrack £79.95*
Trackball for //c, Laser-128 or //e w/MouseCard //. A trackball is like an upside-down mouse, so you move the ball with your fingertips, and you never run out of desk or mat space...

MacTrack ADB £89.95*
As above but for IIGS.

ZIPchipGS Model 1500 £199.00*
8MHz IIGS accelerator module with 8K cache memory.

ZIPchipGS Plus Model 1525 £249.00*
8MHz IIGS accelerator module with 16K cache memory, (DMA compatible).

ZIPGSX Model 1600 £279.00
8MHz IIGS accelerator card with 16K cache memory, (DMA compatible, and user-upgradeable when 12MHz/higher chips commercially available).

EduTech Catalog FREE
This month's featured cat is from EduTech of Rochester, NY. In their 20pp cat you will find educational software and accessories in the fields of astronomy, biology, chemistry, interfacing, maths, physics, physical science, and teacher utilities, and more... Just ask for it.

AEC Cat FREE
American Educational Computer's catalogue of software for Apple II, IBM-PC, & Commodore-64.

DeskJet-500 £499.95*
300dpi inkjet printer for top-quality output at a fraction of the price of a laser printer. Now runs with "Harmonic" GS/OS driver for IIGS applications. Can be shared between an Apple & IBM-PC using a simple data switch. The DeskJet-500 includes both serial and parallel interfaces.

Amstrad FX9600T Fax £573.85*
The one to get! Has built-in Epson/IBM parallel port so you can use it as a printer, and indeed for paper-less faxing direct from your word-processor! Separate 50 number memory for fax numbers and 50 for voice numbers for use with the built-in telephone. Auto sheet cutter trims output to the same length as the original sent document - no more untangling of rolls! Use as a photocopier, or as a 200dpi scanner with an optional £159.85 IBM-PC interface. This price is a limited offer till 31/12/90 - normal price £688.85*. Includes FREE on-site maintenance for 1 year by GEC maintenance.

Amstrad FX9600AT £688.85*
As above but including voice answering machine. Limited offer price till 31/12/90 - normally £803.85*.

Quickie Update £99.95
A hardware/software package that allows use of other scanners with the //e,][+ or IIGS. Works with LightningScan, ScanMan+, GeniScan, Genius GS-4500, DFI Handy Scanner HS-3000, and others.

Quickie HS-3000+ £249.00*
Combo hand scanner for IBM-PC AND Apple II. Includes IBM-PC and Apple II cards, one scanner unit, plus Apple II and IBM-PC software.

MGA SoftCat
Tel: 0797-226601 [fax: 226721]

prices include VAT
*-prices include p&p
▲ where two prices shown, the lower price is for Apple 2000 members ONLY
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MacLine

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Hyper DA (read HyperCard files from a DA)	£49.00
Master Juggler (100's DA's & fonts bypassing F/DA Mover)	£59.00
MultiClip 2.0 (multiple copies & pastes)	£65.00
QuickKeys 2.0 (macro maker, time saver utility)	£99.00
QuickDex (lightning fast DA database, essential)	£35.00
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Stepping Out 2 (software big screen extender)	£59.00
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Smart Alarms multi user (network diary version)	call
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stopWatch 3.0 (logs time usage of applications)	£85.00
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Suitcase 2 (manages 100's DA's & fonts)	£49.00
SuperGlue II (print images to disk)	£69.00
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Tempo II (the most powerful macro maker)	£99.00
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The Curator	£90.00
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Model Shop	£425.00
PhotoShop	£695.00
Pixel Paint 2.0	£235.00
Pixel Paint Professional	£375.00
Streamline	£299.00
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Swivel 3D	£295.00
Swivel 3D Pro	£375.00
SuperGlue 2	£85.00
Super 3D ver 2	£299.00
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Adobe Type Reunion	£49.00
Adobe Type Set	£79.00
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The Visual Arts	£150.00
MapArt EPSF	£95.00
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Comic People	£29.00
WetPaint	each £49.00

"Classic Clip Art", "Animal Kingdom", "Printers Helper", "Old Earth Almanac", "Industrial Revolution", "For Publishing", "Special Occasions", "Island Life", "All the People".

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C.A.T. 3.0	£325.00
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Double Helix II	£350.00
DynoDex	£65.00
FileMaker II	£195.00
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Foxbase+Mac 2	£390.00

Omnis 3 Plus	£175.00
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These are 80 nanosecond simms which will work in all current Macs including si and Classic.

1Mbit £35.00 per Mb.
Mac IIFX £180.00 or 4Mb.
Macintosh Portable Call.

M E M O R Y

WHAT'S THE BIG PROBLEM WITH THE CLASSIC?

This. What software do you buy to go with it? For less than a thousand pounds you have a wonderful computer but are you now going to spend a similar amount on programs to run on it? If you have loadsamoncy you will and you'll be buying the best software around but if you still want great software at the right price we have...

MacChat

Norah Arnold looks at the latest Macintosh developments and product news.

User Group at Liverpool University

A letter has been received which informs us that a user group has been started up in Liverpool University. It is based in the Surface Science research centre and meets at Tuesday lunchtimes. If you would like further information, contact Alan at 17 Mersey Road, Liverpool L17 6AG.

DeskWriter Cartridges

The following has been received regarding the re-charging of DeskWriter cartridges.

Dear Editor,

October 90 magazine has a series of letters about failure to re-charge DeskWriter cartridges. I sent you a couple of discs on the subject, including details of my own successful re-loading of the cartridges, but you might care to have a (fairly) comprehensive review of the situation as I have found it.

DeskWriter suffered from two related faults, both of which reduced the life of an ink cartridge from a supposed 500-1000 A4 sheets down to (in my case) as few as 40 sheets, making the printer impossibly expensive to run - costs of up to 44 pence a sheet, just for the ink, are not on.

Hewlett-Packard admit to only one fault which is cured by a DIY kit replacing the cartridge rest and pump assembly, obtainable free of charge, but only if you shout loud enough, although it has been on the stocks for more than 12 months. H-P admit that they ignore registration of the machines. H-P allege that the fault blocks the ink pump and prevents the cartridge feeding ink, even though there is plenty left in the cartridge.

This is NOT my experience, as my expired cartridges were almost all empty, but it may explain the publicised failures to get a re-charged cartridge to work.

The second fault, not mentioned by H-P is that the foam pad on which the cartridge rested at the zero position and which wiped the printing face clean at each pass, got damp with use and slowly syphoned off all the ink into the body of the machine. The pad is replaced by a rubber assembly as part of the DIY kit.

H-P U.K. have ignored my letters of complaint about the machine, but I did get a letter from H-P USA promising to replace the NINE cartridges used (or should that be mis-used) on a single fortnight's printing session, but only when they've got their new ink cleared for use.

John Stanier
Memb. No. 2013

SPSS on the Macintosh

SPSS UK Ltd have released information regarding the implementation of SPSS on the Macintosh. Anyone who has had the dubious pleasure of becoming familiar with SPSS under DOS should be extremely relieved that a more user-friendly interface may be round the corner. I shall wait and see whether they have done justice to the Macintosh User Interface Guidelines and reserve my judgement until then.

Press Information
SPSS are pleased to announce the first full statistical analysis package for the Macintosh. SPSS for Mac is based on the widely-used SPSS system, available until now under DOS, and on a range of mini and mainframe computers.

Analysts doing weighted measures, time series analysis, forecasting and conjoint analysis can ONLY use SPSS if they are committed to Macintosh. Also, beware of competitors who only offer one basic option on important routines like Factor Analysis. Users of SPSS on mainframes are THRILLED at how easy it is to use the Mac version. It gives them everything they learned about statistics and SPSS with the ease of the Macintosh environment.

SPSS for Mac includes software for:
- comprehensive data management eg, sorting, selecting, merging, matching, reading data files in a wide variety of formats.
- simple or sophisticated statistical analysis, including a wide range of multivariate techniques.
- table formatting, for production of published tabular output.
- an interface to Cricket Graph for high quality graphs.

Prices for SPSS for Mac start from £625.

Death of Paul Wright

Blyth Software released the following information concerning the death of their founder and chairman, Paul Wright.

Press Announcement
Founder of Blyth Software loses fight for life
Paul Wright, Founder and Chairman of Blyth Holdings Inc. died peacefully at his home in Suffolk on 15th September. Paul, aged thirty-nine, had been ill for several months and leaves a wife Anna and two children, Alexander and Christopher.

Blyth UK was founded by Paul Wright in Suffolk, in 1980 as an Apple computer dealership. Today Blyth Holdings Inc. is a leading international vendor of single and multi-user relational database software for the Macintosh and IBM range of personal computers, with over 150,000 Omnis products sold or licensed throughout the world.

The success of Blyth Software is largely due, to Paul Wright's vision and insight into the computing industry, combined with a belief that Blyth should produce software that could fully utilise the capabilities of the available hardware.

As early as 1981, Paul Wright recognised a need for business

database software for what was then the Apple II. He later joined forces with David Seaman, currently Blyth's Research and Development Director, and subsequently entered the business of developing relational database software. In December 1981, the Company licensed a very elementary form of Omnis for Apple II and Apple III computers.

Since then, under Paul's leadership and guidance, the Company has devoted itself to the development of a family of specialised Omnis database software, including Omnis 3 Plus, Omnis Quartz and Omnis 5.

Throughout the past ten years, Paul Wright's main objective has been to produce reliable business software of the highest technical quality. Paul also directed Blyth's development efforts towards making the easy-to-use and functional Omnis software, available over a wider range of machines.

This was successfully achieved in May 1989, when Blyth Software released Omnis 5, the FIRST multi-platform database and applications development system to operate across both Macintosh and IBM compatible personal computers.

Company achievements include:
- Blyth Software was one of the first British IT companies to open an office in the United States in 1984.
- Blyth Software successfully achieved a public flotation on the NASDAQ stock Exchange in New York in 1987, raising $7 million dollars.
- Blyth's Omnis 3 Plus database product for Macintosh personal computers won a British Design Award in 1988.

Since its release, Omnis 5 has been independently voted as the "Best Buy" database for the Macintosh, by MacUser Magazine, August 1989 and the "Best Buy" Windows database by PC Magazine, August 1990.

Paul Wright's personal contributions include not only the creation of Blyth Software and the Omnis range of products, but also the moulding of a Company, based on respect for the individual, creativity, integrity, sound business practises and an optimistic belief in the future.

Paul was widely admired and respected, and will be long remembered for his remarkable intelligence, integrity and inimitable sense of humour.

In September 1987, Paul Wright wrote "Blyth's technicians and programmers are busy fine-tuning today's products and blueprinting tomorrow's; creating a rich software heritage for the microcomputer users of the future." This remains true today and it is a fitting inscription to a remarkable man.

For further information contact Debbie Charman. Tel: (0728) 603011

New Professional XPress and Visionary Extensions from The Last Word

Two new professional XTension enhancements to Quark XPress 3 .0 TM and Scitex Visionary 3rM are announced by The Last Word Systems Ltd. These are "SoftCuts™" and "OverMatter™". Both XTensions are available now.

"SoftCuts" is an XTension which allows sub-editors to recall cuts and alterations made to copy within Quark XPress or Visionary text boxes. The facility emulates the function found on high-end dedicated newspaper composition systems and allows editors

and chief sub-editors to instantly compare the subbed version of text with the original text that was entered into the text box.

On newspaper and large magazine subbing (copy editing) desks there is a requirement for department heads to review the work carried out by the sub-editing team and it is necessary to be able to see exactly where cuts and alterations have been made whilst having the facility to alter or revise the editing which has taken place. "SoftCuts" shows the position of cuts with the original text displayed with strike-through characters imposed and text additions are shown as underlined type.

Priced at £295, "SoftCuts" provides these features and brings both XPress and Visionary closer to the editing functionality found in dedicated newspaper composition systems.

"OverMatter" provides XPress and Visionary users with a feature which shows the overmatter from a text box in a floating text window. The text, which in ordinary XPress or Visionary is hidden behind an overmatter symbol, may be edited in either the text box on the page or in the "OverMatter" text window. This allows copy editors to cut text and see the effect of the cuts immediately. This saves having to create and link new text boxes every time text overspills the designated size of a text box on a page. "OverMatter" is priced at £95.

More information on both "SoftCuts" and "OverMatter" is available from Roger Fuller at The Last Word on 071-736 7656.

Mac Classic

Information provided by Apple Computer, Inc. on the new low-priced Macintosh computer.

Macintosh Classic Features and Benefits

Copyright 1990, Apple Computer, Inc.

The Apple Macintosh Classic personal computer is the lowest-cost Macintosh. It performs up to 25% faster than the Macintosh Plus, and comes standard with the Apple SuperDrive. The SuperDrive is a 3.5-inch disk drive that can read from and write to Macintosh disks and MS-DOS, OS/2 and ProDOS disks. AppleTalk networking and sound output capabilities are built-in. A SCSI port allows connection to a maximum of seven peripheral products. An internal hard disk drive is optional.

Features

— 68000 microprocessor, running at 7.8336 megahertz
— Apple SuperDrive (1.4-megabyte floppy disk drive)
— Six built-in ports: One SCSI port, one Apple Desktop Bus (ADB) port, one external 3.5-inch disk interface, two serial ports and one sound port
— Optional 40-megabyte internal hard disk drive
— 1 or 2 megabytes of RAM, expandable to 4 megabytes
— 512K of ROM, including: Hierarchical File System, drivers for Macintosh hard disks, ADB, SCSI, and an AppleTalk network, Macintosh Toolbox, and QuickDraw
— Macintosh user interface, including mouse, icons, windows, and pull-down menus
— MultiFinder operating system
— Software Compatibility

Benefits

— Offers up to 25 percent faster performance and system responsiveness than the Macintosh Plus system.
— Allows convenient transfer of data files between Macintosh, OS/2, MS-DOS, and Apple II systems.

— Provides almost twice the storage capacity of 800K disk drives.
— Make it easy to expand your system with additional peripheral devices.
— Permits communication with the keyboard, mouse, and other devices.
— Accommodates a second 800K or 1.4-megabyte external 3.5-inch disk drive.
— Provides access to LocalTalk cable-based networks, which allow you to connect Macintosh Classic

systems to other computers and to LaserWriter printers through the AppleTalk network system.
— Supplies high-quality, four-voice digital sound that is compatible with all applications that use Macintosh sound.
— Handles a broad range of computing needs by providing ample storage capacity for files and applications.
— Provides a simple growth path as you need additional memory.
— Lets you work with large amounts of data, such as large spreadsheets, scanned images, and sound files.
— Supports Macintosh system software version 7.0 application when available.
— Organizes storage for documents and allows easy access to files, with the Hierarchical File System.
— Supports high-performance peripherals, with the SCSI interface.
— Provides the consistent graphics interface for applications, with Quick Draw.
— Makes most applications intuitive and easy to learn.
— Reduces training and support costs.
— Provides a consistent user interface across applications.
— Allows multiple applications to be opened concurrently.
— Lets you easily cut and paste parts of documents from one application to another.

— Allows background tasks to be run while you interact with applications in the foreground.
— Lets you run virtually all Macintosh software.

Macintosh Classic Technical Specifications

Copyright 1990, Apple Computer, Inc.

Two configurations of the Macintosh Classic are available. The Macintosh Classic comes with 1

megabyte of RAM, internal 1.4-megabyte Apple SuperDrive floppy disk drive, ADB keyboard and mouse, system software, and training disk.

The Macintosh Classic 2/40 comes with 2 megabytes of RAM, internal 40-megabyte hard disk drive, internal 1.4-megabyte hard disk drive, internal 1.4-megabyte Apple SuperDrive floppy disk drive, ADB keyboard and mouse, system software, and training disk.

The Macintosh with 1 megabyte of RAM can be expanded to 2 megabytes by adding the Macintosh Classic Memory Expansion Card. The 2-megabyte Macintosh Classic can be expanded to 4 megabytes by installing Single In-line Memory Modules (SIMMs).

The SCSI (Small Computer System Interface) port is a bus that used to connect hard disks and other SCSI-based devices to the Macintosh Classic. It can support up to seven SCSI peripheral devices (six if you have an internal hard disk).

The Macintosh Classic provides full ROM support for all AppleTalk protocols and includes built-in serial ports for Local-Talk network connections.

Macintosh system software includes:
— System software version 6.0.6 or later (the Macintosh Operating System) with System Startup disk.
— System Additions disk (includes utilities such as the Apple File Exchange, HD SC Setup, CloseView, DiskFirst Aid, and Font/DA Mover).
HyperCard 2.0 software is included with the Macintosh Classic.

Microprocessor
— MC68000, 32-bit architecture
— 7.8336-megahertz clock speed

Memory
— 1 or 2 megabytes of RAM, expandable to 4 megabytes
— 512K of ROM
— 256 bytes of parameter memory

Disk Drives
— Built-in Apple SuperDrive 1.4-megabyte floppy disk drive (optional external 1.4-megabyte or 800K disk drive available)
— Optional internal 40-megabyte Apple SCSI hard disk drive
— Optional external Apple SCSI

hard disk (many capacities available)

Monitor
— Built-in 9-inch diagonal, high-resolution (512- by 342-pixel) bit-mapped monochrome display

Interfaces
— One Apple Desktop Bus (ADB) port, supporting a keyboard, mouse, and other devices daisy-chained through a low-speed, synchronous serial bus (a maximum of three chained devices is recommended)
— Two serial (RS-232/RS-422) ports, 230 kilobits per second maximum (up to 0.920 megabits per second if clocked externally)
— SCSI interface, using a 50-pin internal connector for the first external device; all subsequent SCSI-base peripherals use standard SCSI-to-SCSI interface cables.
— 3.5-inch external floppy disk drive (800K or 1.4-megabyte) interface
— Sound port for external audio amplifier or headphones

Keyboard
— ADB keyboard with numeric keypad
— Two-level tilt adjustment

Mouse
— Apple Desktop Bus Mouse; mechanical tracking; optical shaft or contact encoding; 100 + or - 10 pulses per in. (3.9 + or - 0.39 pulses per mm) of travel Sound Generator
— Four-voice sound with 8-bit digital-analog conversion using 22-kilohertz sample rate - capable of driving stereo headphones or other stereo equipment through the sound jack Clock/Calendar
— CMOS custom chip with long-life lithium battery

Fan
— 10 cu. ft./min. axial
— Positive pressure cooling

Electrical Requirements
— Line voltage: 120 volts AC, RMS (nominal)
— Frequency: 47 to 63 hertz, single phase
— Power: 100 watts maximum

ADB Power Requirements
— Maximum power draw for all ADB devices: 500 milliamps (a

maximum of three ADB devices, daisy-chained to the port, is recommended)
— Mouse draws 80 milliamps.
— Keyboard draws 25 milliamps.

Main Unit Size and Weight
— Height: 13.2 in. (33.6 cm)
— Width: 9.7 in. (24.6 cm)
— Depth: 11.2 in. (28.5 cm)
— Weight: 16 to 17.1 lb. (7.3 to 7.8 kg)

Mouse Size and Weight
— Height: 1.1 in. (2.8 cm)
— Width: 2.1 in. (5.3 cm)
— Depth: 3.8 in. (9.7 cm)
— Weight: 6 oz. (.17 kg)

Keyboard Size and Weight
— Height: 1.3 in. (3.3 cm)
— Width: 16.0 in. (40.5 cm)
— Depth: 5.9 in. (15.1 cm)
— Weight: 1.96 lb. (.89 kg)

Operating Environment
— Operating temperature: 50 to 104 degrees F (10 to 40 degrees C)
— Storage temperature: -40 to 116.6 degrees F (-40 to 47 degrees C)
— Relative humidity: 5% to 95% noncondensing
— Maximum altitude: 15,000 ft. (4,722 m)

Macintosh Classic Order Number M0421LL/A
Macintosh Classic 2/40 Order Number M0435LL/A

Apple Products Library
15-10-90

Mac IIsi 030 Direct Slot Adaptor Card (page 48)

Macintosh LC

Information provided by Apple Computer, Inc. on the new Macintosh LC computer.

Macintosh LC Features and Benefits

Copyright 1990, Apple Computer, Inc.

The Apple Macintosh LC personal computer is the lowest-cost colour-capable Macintosh. The 16-megahertz 68020 microprocessor increases system responsiveness more than 100 percent over the Macintosh SE and Classic. Built-in support for three Apple monitors eliminates the need to add a separate video card. The three monitors that may be used with the Macintosh LC are the Macintosh 12" RGB Display, the Macintosh 12" Monochrome Display, and the AppleColor High-Resolution RGB Monitor. You can use 256 colours on the Macintosh 12" RGB Display, 16 shades of gray on the Macintosh 12" Monochrome Display, and 16 colours on the AppleColor High-Resolution RGB Monitor. The optional Macintosh LC 512K VRAM (video random-access memory) SIMM (Single In-line Memory Module) allows the generation of more colours or shades of gray on all three monitors.

The Macintosh LC has been designed so you can add sounds to documents created with the computer.

The system comes standard with the 1.4-megabyte Apple SuperDrive disk drive. This allows read/write operations to 3.5-inch disks initialized for the Macintosh as well as MS-DOS, OS/2, and ProDOS. A 40-megabyte internal hard disk is also included. There are seven built-in ports to connect the Macintosh LC with peripheral equipment. Built-in networking is also included. A processor-direct slot allow you to add a high-performance expansion card for additional graphics and communications.

The Apple IIe Card is available that allows the Macintosh LC to run all applications developed for Apple IIe systems. The Macintosh LC will be able to run applications supported by system software 7.0.

Features

— 68020 microprocessor, running at 16 megahertz
— Built-in video support for three Apple monitors: Macintosh 12" RGB Display, Macintosh 12" Monochrome Display, and AppleColor High-Resolution RGB Monitor
— Optional Macintosh LC 512K VRAM SIMM
— Sound input
— Apple SuperDrive (1.4-megabyte floppy disk drive)
— Apple IIe Card
— 020 Direct Slot
— Seven built-in ports: one SCSI port, one Apple Desktop Bus (ADB) port, two serial ports, one sound-in port, one sound-out port, and one video output port
— 40-megabyte internal hard disk drive
— 2 megabytes of on-board RAM, expandable to 10 megabytes
— Macintosh user interface, including mouse, icons, windows, and pull-down menus
— MultiFinder operating system
— Software compatibility

Benefits

— More than 100 percent faster performance and system responsiveness than Macintosh SE and Macintosh Classic systems
— Choice of Apple displays, both colour and monochrome
— 256 colours available simultaneously on the Macintosh 12" RGB Display, up to 16 shades of gray on the Macintosh 12" Monochrome Display, and up to 16 colours on the AppleColor High-Resolution RGB Monitor
— Allows display change without adding video card
— Colour depth can be increased to 256 colours or shades of gray on the AppleColor High-Resolution RGB Monitor and Macintosh 12" Monochrome Display.
— 32,000 colours on the Macintosh 12" RGB Display
— Allows you to add voice comments to voice-capable word processing, spreadsheet, and other documents; send spoken electronic mail messages; add voice excerpts to presentations; and create spoken password protection for sensitive files.
— Allows convenient transfer of data files between Macintosh, OS/2, MS-DOS, and Apple II Systems.

- Twice the storage capacity of 800K disk drives
- Allows you to run all applications that have been developed for Apple IIe computers. Preserves your investment in Apple IIe software.
- High-performance expansion card for communication, emulation, and graphics.
- Supports up to seven popular peripherals such as CD-ROM drives, scanners, and printers.
- Easy external access to optional expansion cards
- Access to LocalTalk cable-based networks; connection to other computers and to LaserWriter printers through the AppleTalk network system
- Sound input via microphone or phono jack adapter
- High-quality sound output that is compatible with all applications that use Macintosh sound.
- Connection to external video display devices
- Simple growth path as you need additional memory.
- Lets you work with large amounts of data, such as spreadsheets, scanned images, and sound files.
- Makes most applications intuitive and easy to learn.
- Reduces training and support costs.
- Provides a consistent user interface across applications.
- Allows multiple applications to be opened concurrently.
- Lets you easily cut and paste parts of documents from one application to another.
- Allows background tasks to be run while you interact with applications in the foreground.
- Runs all Macintosh software.

Macintosh LC Technical Specifications
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The Macintosh LC comes with 2 megabytes of RAM (expandable to 10 megabytes), internal 1.4-megabyte Apple SuperDrive floppy disk drive, internal 40-megabyte hard disk drive, ADB keyboard and mouse, system software, and training disk.
The Macintosh LC comes with 2 megabytes of RAM on the main logic board. Up to 8 megabytes of RAM can be added by installing a memory expansion card and then adding SIMMs. Some possible

configurations include:
- 4 megabytes (2 megabytes on main logic board; two 1-megabyte SIMMs)
- 10 megabytes (2 megabytes on main logic board; two 4-megabyte SIMMs) The SCSI (Small Computer System Interface) bus can support up to seven peripheral devices.
The Macintosh LC provides full ROM support for all AppleTalk protocols and includes built-in serial ports for LocalTalk network connections.
Macintosh system software includes:
- System software version 6.0.6 or later (the Macintosh Operating System) with System Startup disk
- System Additions disk (includes utilities such as the Apple File Exchange, HD SC Setup, CloseView, Disk First Aid, and Font/DA Mover)
The Macintosh LC accepts and processes sound, and generates sound. Using a microphone or phono jack adapter, and appropriate software, you can speak into the computer to create electronic voice messages and add voice comments to files. Sound entering the computer is filtered through a custom filter/preamplifier chip, converted to digital form, and stored in DRAM or directly on the hard disk. The sound generator is a sampling generator that provides the sound signal to the internal speaker to both channels of stereo mini-phone-jack headphones.

Microprocessor
- MC68020, 32-bit architecture
- 16-megahertz clock speed

Memory
- 2 megabytes of RAM, expandable to 4 or 10 megabytes
- 512K of ROM, socketed for future ROM upgrades
- 265 bytes of parameter memory

Disk Drives
- Built-in Apple SuperDrive 1.4-megabyte floppy disk drive
- Internal 40-megabyte Apple SCSI hard disk drive
- Optional external Apple SCSI hard disk (many capacities available)

Monitors
- Supports several colour and monochrome monitors, including: Macintosh 12" RGB Display,

Macintosh 12" Monochrome Display, and AppleColor High-Resolution RGB Monitor.
- When equipped with a video expansion card, supports other Apple and non-Apple monitors; see your authorized Apple dealer for details.

Interfaces
- One Apple Desktop Bus (ADB) port, supporting a keyboard, mouse, and other devices daisy-chained through a low-speed, synchronous serial bus (a maximum of three daisy-chained devices is recommended)
- Two serial (RS-232/RS-422) ports, 230 kilobits per second maximum (up to 0.920 megabits per second if clocked externally)
- Video port, supporting colour and monochrome monitors of various sizes and resolutions
- SCSI interface, using a 50-pin internal connector and a DB-25 connector for the first external device; all subsequent SCSI-based peripheral devices use standard SCSI-to-SCSI interface cables.
- Internal expansion slot, supporting an 020 Direct Slot expansion card
- Monophonic sound output port for external audio devices
- Sound input port for monaural sound input

Sound Input
- Monaural 8-bit sound
- Sound samples can be made at 22 or 11 kilohertz.
- Macintosh Audio Compression Expansion (MACE) sound utility, supporting 3:1 or 6:1 compression, which allows approximately half an hour of sound to be stored on a single 40-megabyte hard disk

Sound Generator
- Monophonic 8-bit digital-analog conversion using 22-kilohertz sample rate - capable of supplying the same signal to both channels of stereo headphones or other stereo equipment through the sound jack

Microphone
- "Hands free" omnidirectional electret microphone

Keyboard
- ADB keyboard with numeric keypad
- Two-level tilt adjustment

Mouse

— Apple Desktop Bus Mouse; mechanical tracking: optical shaft or contact encoding; 100 + or - 10 pulses per in. (3.9 + or - 0.39 pulses per mm) of travel

Electrical Requirements

— Line voltage: 90 to 240 volts AC, RMS
— Frequency: 47 to 63 hertz, single phase
— Power: 50 watts maximum, not including monitor power

ADB Power Requirements

— Maximum power draw for all ADB devices: 200 milliamps (a maximum of three ADB devices, daisy-chained to the port, is recommended)
— Mouse draws 80 milliamps.
— Keyboard draws 25 milliamps.

Main Unit Size and Weight

— Height: 3.0 in. (7.7 cm)
— Width: 12.2 in. (31.0 cm)
— Depth: 15.0 in. (38.2 cm)
— Weight: 8.8 lb (4.0 kg)

Mouse Size and Weight

— Height: 1.1 in. (2.8 cm)
— Width: 2.1 in. (5.3 cm)
— Depth: 3.8 in. (9.7 cm)
— Weight: 6 oz. (.17 kg)

Keyboard Size and Weight

— Height: 1.8 in. (4.4 cm)
— Width: 16.5 in. (41.8 cm)
— Depth: 5.6 in. (14.2 cm)
— Weight: 2 lb. (1 kg)

Order Number M0442LL/A
Apple Products Library
15-10-90

Macintosh LC 512K VRAM SIMM

Copyright 1990, Apple Computer, Inc

The Macintosh LC 512K VRAM SIMM (video random-access memory, Single In-line Memory Module) increases the number of colors that a Macintosh LC can display simultaneously on a monitor. The SIMM is a small circuit board containing VRAM chips that fits into a socket on the computer's main logic board.

Features

— Up to 32,000 colors on the Mac-intosh 12" RGB Display
— Up to 256 shades of gray on the Macintosh 12" Monochrome Display (up from 16)
— Up to 256 colors on the AppleColor High-Resolution RGB Monitor (up from 16 colors that the Macintosh LC could previously generate)
— User-installable

Benefits

— Provides vivid colours and is useful for displaying video and digitized images.
— Displays photographic-quality black-and-white images.
— Displays graphics and text in brilliant, crisp colours or gray scales.
— Installed in minutes.

The 256K of video RAM that comes standard in the Macintosh LC is on a SIMM. This SIMM is a small circuit board containing VRAM chips that fits into a socket on the computer's main logic board. The Macintosh LC 512K VRAM SIMM is designed to replace the existing 256K VRAM SIMM in the Macintosh LC and plugs directly into the same logic board socket. The Macintosh LC 512K VRAM SIMM can be used only with a Macintosh LC personal computer that is equipped with a Macintosh 12" RGB Display, a Macintosh 12" Monochrome Display, an AppleColor High-Resolution RGB Monitor, or a third-party monitor that uses the external video port of the Macintosh LC.

Order Number M0517LL/A
Apple Products Library 15-10-90

Macintosh IIsi 030 Direct Slot Adapter Card

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The Macintosh IIsi 030 Direct Slot Adapter Card lets you add an 030 Direct Slot expansion card to the Macintosh IIsi for networking, graphics, and other uses. It includes the Motorola 68882 floating-point math coprocessor. It greatly improves the speed of Mathematical calculations generated by applications such as CAD/CAM, sophisticated graphics packages, spreadsheets, and databases.

Features

— 030 Direct Slot
— 68882 floating-point math coprocessor
— User-installable

Benefits

— Allows the addition of an 030 Direct Slot expansion card, such as a video card for photographic colour or a two-page monitor, a special memory card, a communications card, or a digital signal processing card.
— Lets you add any expansion card that is compatible with those used in the Macintosh SE/30.
— Improves the speed of mathematical calculations.
— Installs easily in minutes.
The Macintosh IIsi 030 Direct Slot Adapter Card can be used only

with a Macintosh IIsi personal computer.

Coprocessor

— MC68882 floating-point unit (IEEE standard 80-bits precision)
— 20-megahertz clock speed Interface
— 030 Direct Slot supporting 120-pin Euro-DIN style connector with full 32-bit address and data lines.

Expansion Card Power Requirements

— 030 Direct Slot expansion cards should not draw more than 7 watts.
— Maximum power:
- + 5 volts: 1.5 amps
- -5 volts: 0.1 amps
- +12 volts: 0.15 amps
- -12 volts: 0.1 amps
Order Number M0480LL/A
Apple Products Library 10-90

Apple IIe Card

The Apple IIe Card will allow users of Apple Macintosh LC personal computers to run Apple IIe programs. The Apple IIe Card contains the same microprocessor (65C02) that's built into the Apple IIe personal computer. The card comes with 128K standard random-access memory (RAM) and can use up to 256K of Macintosh LC RAM. A floppy disk drive controller and connector ports for a 5.25-inch floppy disk drive and an Apple joystick are included. Apple IIe-compatible applications can be stored on and launched directly from a 5.25-inch or 3.5-inch floppy disk; from a ProDOS partition of the Macintosh LC computer's internal hard disk drive; or from an external ProDOS volume. The card also supports AppleTalk networking. By supporting the computer's serial and SCSI (Small Computer System Interface) ports, it also provides access to external Apple IIe-compatible devices. Apple IIe applications run at normal Apple IIe speeds - or, using an optional mode of the Apple IIe Card, you can run them up to twice as fast.

Features

- 65C02 microprocessor
- 128K standard RAM (up to 256K expanded RAM)
- 5.25-inch disk drive port
- Joystick/hand-control port
- Compatible with Apple IIe mouse-based software
- Seamless integration with the Macintosh LC keyboard, mouse, disk drives, and peripheral ports

Benefits

- Runs on all Apple IIe applications - more than 10,000 programs covering almost every subject imaginable.
- Lets you run powerful Apple IIe programs and work with large documents.
- Allows you to use standard 5.25-inch floppy disks that can hold Apple IIe applications or up to 140K (about 100 typewritten pages)

of information.
- Lets you connect joysticks, hand controllers, and special-purpose input devices.
- Simplifies operation of the computer by letting you use the Macintosh mouse to control Central Processing Unit (CPU)
- Microprocessor: 65C02
- Clock speed: 1.02 or 2.04 megahertz, selectable (up to 1 million operations per second)
- Address bus: 16 bits
- Address range: 65,536 bytes (64K)
- Data bus: 8 bits
- Registers: Accumulator, two index registers, stack pointer, processor status register, and program counter

Memory

- 256K or RAM (128K standard RAM); can also access up to 256K of the Macintosh LC computer's memory
- Apple IIe read-only memory (ROM) simulator (in write-protected portions of the RAM) containing an Applesoft BASIC interpreter, system monitor, 80-column display firmware, and diagnostic routines

Text Display Modes

- 80 columns, 24 lines, 5- by 7-dot matrix
- 40 columns, 24 lines, 5- by 7-dot matrix
- All text can appear on the screen as normal, inverse, or MouseText characters Graphics Display Modes
- Low-resolution color: 16 colors, 40 horizontal by 48 vertical blocks
- High-resolution color: 6 colors, 280 horizontal by 192 vertical dots
- High-resolution monochrome: 280 horizontal by 192 vertical dots
- Double high-resolution color: 16 colors, 140 horizontal by 192 vertical dots
- Double high-resolution monochrome: 560 horizontal by 192 vertical dots

Compatible Operating Systems

- ProDOS
- DOS 3.3
- Pascal

System Requirements

- Macintosh LC personal computer
- An Apple Macintosh 12" RGB Display is recommended.

Will be available in March 1991.
Apple Products Library 10-90 🍎

Macintosh IIsi NuBus Adapter Card

The Macintosh IIsi NuBus Adapter Card lets you add one of the NuBus expansion cards that are available for networking, graphics, and other uses. It includes the Motorola 68882 floating-point math coprocessor. This improves the speed of mathematical calculations generated by applications such as CAD/CAM, graphics packages, spreadsheets, and databases.

Features

- NuBus expansion slot
- 68882 floating-point math coprocessor
- User-installable

Benefits

- Allows addition of a NuBus expansion card, such as a video card for photographic color or a two-page monitor, a special memory card, a communications card, or a digital signal processing card.
- Greatly improves the speed of mathematical calculations.
- Installs easily in minutes.

The Macintosh IIsi NuBus Adapter Card can be used only with a Macintosh IIsi personal computer.

Coprocessor

- MC68882 floating-point unit (IEEE standard 80-bits precision)
- 20-megahertz clock speed Interface
- NuBus supporting 96-pin Euro-DIN style connector with 32-bit multiplexed address and data bus

Expansion Card Power Requirements

- NuBus cards should not draw more than 13.3 watts.
- Maximum power:
- +5 volts: 2.0 amps
- +12 volts: 0.175 amps
- -12 volts: 0.1 amps
Order Number M0481LL/A
Apple Products Library 10-90 🍎

Macintosh IIsi

Information provided by Apple Computer, Inc. on the new Macintosh IIsi computer.

Macintosh IIsi Features and Benefits

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The Macintosh IIsi is the lowest-cost member of the Macintosh II line. It is equipped with a 20-megahertz 68030 microprocessor that runs Macintosh applications up to five times faster than the Macintosh Classic. This allows you to work under A/UX.

The Macintosh IIsi comes with built-in support for four Apple monitors as well as third-party monitors. A video expansion card can be added if you need to use any other Apple or third-party monitors. An internal expansion slot for either a NuBus card or an 030 Direct Slot card allows you to add one of the expansion cards that are available for communications, video, or coprocessing. An optional floating-point math coprocessor can be added to speed mathematical calculations. Eight external ports allow you to connect peripheral equipment.

Sound input is available with the Macintosh IIsi. The unit comes with a microphone and phono jack adapter, which let you input your voice into documents, presentations, and even electronic mail messages. The Macintosh IIsi will run applications supported by system software version 7.0.

Features

— 68030 microprocessor, running at 20 megahertz; built-in Memory Management Unit (MMU)

— Optional 68882 floating-point math coprocessor, running at 20 megahertz

— Multiple monitor options including:

— Built-in video support for four Apple monitors: Macintosh 12" RGB Display, AppleColor High-Resolution RGB Monitor, Macintosh 12" Monochrome Display, and Apple Macintosh Portrait Display

— Support for other Apple or third-party monitor that requires a video expansion card

— One internal expansion slot for either a NuBus card or an 030 Direct Slot card

— Sound input

— Apple SuperDrive (1.4-megabyte floppy disk drive)

— 40- or 80-megabyte internal hard disk drive

— Eight built-in ports: one SCSI port, one Apple Desktop Bus (ADB) port, external disk drive port, two serial ports, one sound-in port, one sound-out port, one video port

— 1 megabyte of on-board RAM, expandable to 17 megabytes

— 512K of ROM, including support for: 32-bit addressing, Hierarchical File System, 32-Bit QuickDraw, sound input

— Choice of keyboards (sold separately): Apple Keyboard, Apple Extended Keyboard — Macintosh user interface, including mouse, icons, windows, and pull-down menus — MultiFinder operating system

— Software compatibility

Benefits

— Runs applications up to five times faster than the Macintosh Classic.

— Supports A/UX, Apple's implementation of the AT&T operating system.

— Will support the virtual memory feature in future system software versions.

— Provides fast processing of mathematical calculations.

— Eliminates the need for a separate video card or special driver software.

— Lets you work with up to 256 colors or shades of gray simultaneously on the Macintosh 12" RGB Display and the AppleColor High-Resolution RGB Monitor, up to 256 shades of gray with the Macintosh 12" Monochrome Display, and up to 16 shades of gray with the Apple Macintosh Portrait Display.

— Lets you work with the monitor that best suits your needs - including monitors that produce photographic-quality color.

— Lets you incorporate new capabilities or increase system performance by adding an expansion card for communications, graphics, emulation.

— Lets you add one of the NuBus cards that are available for all other Macintosh II systems.

— Lets you add one of the 030

Direct Slot cards that are available for the Macintosh SE/30 personal computer.
— Allows convenient transfer of data files between Macintosh, OS/2, MS-DOS, and Apple II systems.
— Provides almost twice the storage capacity of 800K disk drives.
— Provides ample storage capacity for files and applications.
— Supports up to seven peripherals such as CD-ROM drives, scanners, and printers.
— Permits communication with the keyboard, mouse, and other devices.
— Supports either an external 800K or 1.4-megabyte Apple SuperDrive floppy disk drive.
— Provides access to LocalTalk cable-based networks, which allow you to connect Macintosh IIsi systems to other computers and to LaserWriter printers through the AppleTalk network system.
— Supports sound input via microphone or phono jack adapter.
— Supplies four-voice digital sound output that is compatible with all applications that use Macintosh sound.
— Provides connection to all monitors supported by the Macintosh IIsi computer's built-in monitor support.
— Lets you work with large amounts of data, such as large spreadsheets, scanned images, and sound files.
— Enables future 32-bit versions of the Macintosh Operating System to address up to 4 gigabytes of memory.
— Organizes document storage and allows easy access to files.
— Enables color systems to display up to 16 million colors simultaneously.
— Apple Keyboard includes a numeric keypad and cursor keys.
— Apple Extended Keyboard also includes 15 function keys, letting you work effectively with alternate operating systems, terminal-emulation programs, and other data communications applications.
— Makes most applications intuitive and easy to learn.
— Reduces training and support costs.
— Provides a consistent user interface across applications.
— Allows multiple applications to be opened concurrently.
— Lets you easily cut and paste parts of documents from one

application to another.
— Allows background tasks to be run while you interact with applications in the foreground.

Macintosh IIsi Technical Specifications
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The 68030 microprocessor runs at 20 megahertz and features a built-in Memory Management Unit (MMU). The MMU supports the A/UX operating system and provides the capabilities necessary to support virtual memory, a new feature of Macintosh system software version 7.0. Virtual memory lets you work with more applications without the need for large amounts of DRAM by setting up sections on the hard disk for easy memory swapping. There are 256-byte data and instruction caches that accelerate overall system performance by eliminating one wait state that occurs with the 68020 processor.

Customers who work routinely with software such as sophisticated CAD/CAM and graphics applications may want to add the Motorola 68882 floating-point math coprocessor to their systems. The 68882 optimizes the computer's performance during math-intensive calculations. The Macintosh IIsi comes with 1 megabyte of RAM on the main logic board. Up to 16 megabytes of RAM can be added by installing Single In-line Memory Modules (SIMMs). Some possible configurations include:
— 2 megabytes (1 megabyte on main logic board; four 256K SIMMs)
— 3 megabytes (1 megabyte on main logic board; four 512K SIMMs)
— 5 megabytes (1 megabyte on main logic board; four 1-megabyte SIMMs)
— 9 megabytes (1 megabyte on main logic board; four 2-megabyte SIMMs)
— 17 megabytes (1 megabyte on main logic board; four 4-megabyte SIMMs)
The Macintosh IIsi uses 100-nanosecond (or faster) fast-paged mode RAM. A ROM SIMM socket on the logic board provides an easy ROM upgrade path.
One NuBus card or 030 Direct Slot card can be added to the Macintosh IIsi by connecting it to a Macintosh IIsi adapter card (sold

separately). NuBus provides a multiplexed, 32-bit address bus and data bus on a single 96-pin connector. The NuBus architecture supports data transfer rates up to 3.75 megabytes per second. The 030 Direct Slot provides a 32-bit slot directly to the microprocessor via a 120-pin connector. This slot is compatible with expansion cards available for the Macintosh SE/30 personal computer. The Motorola 68882 floating-point math coprocessor is on the adapter cards.

The SCSI (Small Computer System Interface) is an interface bus used to connect hard disks and other SCSI-based devices, such as the AppleCD SC CD-ROM drive, and Apple Scanner, and the Apple Personal LaserWriter to the Macintosh IIsi. This interface can support up to seven SCSI peripheral devices.

The Macintosh IIsi provides full ROM support for all AppleTalk protocols, and includes built-in serial ports for LocalTalk network connections.

Macintosh system software includes:
— System software version 6.0.6 or later (the Macintosh Operating System) with System Startup disk.
— System Additions disk (includes utilities such as the Apple File Exchange, HD SC Setup, CloseView, Disk First Aid, and Font/DA Mover).
HyperCard 2.0 Home, Addresses with Audio, Appointments with Audio, Audio Palette, and Audio Help stacks are included. A/UX version 2.0.1 (optional) is compatible with the Macintosh IIsi. The Macintosh IIsi has been designed to accept and process sound as well as generate it. Using a microphone or phono jack adapter, and appropriate software, you can speak into the computer to create electronic voice messages and add voice comments to files. Sound entering the computer is monaural, 8-bit sound. It is filtered through a custom filter/preamplifier chip, converted to digital form, and stored in DRAM or directly on the hard disk. An Apple electret microphone and phono jack adapter are included.

Microprocessor
— MC68030, 32-bit architecture

(includes built-in Memory Management Unit)
- 20-megahertz clock speed
- Two 256-byte, built-in instruction and data caches
Coprocessor (optional)
- MC68882 floating-point math coprocessor
- 20-megahertz clock speed (IEEE Standard 80-bits precision)
Memory
- 1 megabyte of on-board RAM, expandable to 17 megabytes
- 512K of ROM, with ROM SIMM access for future upgrades
- 256 bytes of parameter memory
Disk Drives
- Built-in Apple SuperDrive 1.4-megabyte floppy disk drive (optional external 1.4-megabyte or 800K disk drive available)
- Internal Apple SCSI hard disk drive (1/3 height, 40 or 80 megabytes)
- Optional external Apple SCSI hard disk (many capacities available)
Monitors
- Supports for Apple colour and monochrome monitors as well as some third-party monitors, including:
- Macintosh 12" RGB Display: up to 256 colours, 512 by 384 pixels
- AppleColor High-Resolution RGB Monitor: up to 256 colours, 640 by 480 pixels
- Macintosh 12" Monochrome Display: up to 256 shades of gray, 640 by 480 pixels
- Apple Macintosh Portrait Display: up to 16 shades of gray, 640 by 870 pixels
- When equipped with a video expansion card, supports other Apple and non-Apple monitors
Interfaces
- One Apple Desktop Bus (ADB) port, supporting a keyboard, mouse, and other devices daisy-chained through a low-speed, synchronous serial bus (a maximum of three chained devices is recommended)
- One DB-15 video port, supporting colour and monochrome monitors of various sizes and resolution
- Two serial (RS-232/RS-422) ports, 230 kilobits per second maximum (up to 0.920 megabits per second if clocked externally)
- SCSI interface using a 50-pin internal connector and a DB-25 connector for the first external device; all subsequent SCSI-based

peripheral devices use standard SCSI-to-SCSI interface cables
- Internal expansion slot, supporting a NuBus or an 030 Direct Slot expansion card
- External 3.5-inch floppy disk drive (800K or 1.4-megabyte) interface
- Stereo sound output port for external audio devices
- Sound input port for monaural sound input
Sound Input
- Monaural 8-bit sound
- Sound samples can be made at 22 or 11 kilohertz.
- Macintosh Audio Compression Expansion (MACE) sound utility supporting 3:1 or 6:1 compression, which allows up to 3 hours of sound to be stored on a single 40-megabyte hard disk Microphone
- "Hands free" omnidirectional electret microphone
Sound Generator
- Apple's custom digital sound chip provides 8-bit stereo sampling at 44.1 kilohertz, and includes four-voice wave-table synthesis - capable of driving stereo headphones or other stereo equipment through the sound jack.
Mouse
- Apple Desktop Bus Mouse; mechanical tracking: optical shaft or contact encoding; 100 + or - 10 pulses per in. (3.9 + or - 0.39 pulses per mm) of travel
Clock/Calendar
CMOS custom chip with long-life lithium battery
Electrical requirements
- Line voltage: 120 volts AC, RMS
- Frequency: 47 to 63 hertz, single phase
- Power: 100 watts maximum
ADB Power Requirements
- Maximum power draw for all ADB devices: 500 milliamps (a maximum of three ADB devices, daisy-chained to the port, is recommended)
- Mouse draws 80 milliamps.
- Keyboard draws 25 to 80 milliamps (varies with keyboard model used) (the practical total of ADB devices is three daisy-chained to the port).
Main Unit Size and Weight
- Height: 4 in. (10 cm)
- Width: 12.4 in (31 cm)
- Depth: 14.9 in. (37.2 cm)
- Weight: 10 lb. (4.5 kg)
Mouse Size and Weight
- Height: 1.1 inches (2.8 cm)
- Width: 2.1 inches (5.3 cm)

- Depth: 3.8 inches (9.7 cm)
- Weight: 6 ounces (.17 kg)
Operating Environment
- Operating temperature: 50 to 104 degrees F (10 to 40 degrees C)
- Storage temperature: -40 to 116.6 degrees F (-40 to 47 deg C)
- Relative humidity: 5% to 95%, noncondensing
- Max altitude: 10,000 ft. 3048 m)
Macintosh IIsi 2/40 Order Number M0363LL/A
Macintosh IIsi 5/80 Order Number M0364LL/A
Apple Products Library 15-10-90
Macintosh IIsi/IIci 2 MB and 8 MB Memory Expansion Kits
Copyright 1990, Apple Computer, Inc.
These kits give you the ability to run advanced Macintosh applications - those with sophisticated graphic images and sound files, for instance - and work with more applications simultaneously.
The Macintosh IIsi/IIci 2 MB and 8 MB Memory Expansion Kits consist of either four 512K or four 2-megabyte Single In-line Memory Modules (SIMMs). The SIMMs let you go to the maximum dynamic random-access memory (DRAM) immediately, or in convenient steps. Dealer installation is required.
Features
- 2 or 8 megabytes of dynamic random-access memory (DRAM) - 80-nanosecond fast-paged mode
- Flexible configurations
Benefits
- Lets you work with the most powerful applications and large amounts of data generated by complex spreadsheets, graphic images, and sound files.
- Gives you an easy way to greatly increase system memory.
- Lets you run alternate operating systems.
- Lets you work with up to 9 megabytes of DRAM on a Macintosh IIsi, or up to 16 megabytes of DRAM on a Macintosh IIci.
The Macintosh IIsi/IIci 2 MB and 8 MB Memory Expansion Kits can be used only with the Macintosh IIsi or Macintosh IIci personal computers.
Macintosh IIsi/IIci 2MB Memory Expansion Kit Order Number M0514LL/A
Macintosh IIsi/IIci 8 MB Memory Expansion Kit Order Number M0513LL/A
Apple Products Library 10-90 ¢

New Mac Monitors

The new Macintosh 12" Monochrome and 12" RGB Displays.

Macintosh 12" Monochrome Display

Copyright 1990, Apple Computer, Inc.

The Macintosh 12" Monochrome Display is the lowest-cost high-resolution display for modular Macintosh computers. The new "page-white" phosphor screen and dark glass provides high brightness and sharp contrast. It displays up to 256 levels of gray simultaneously, depending on the Macintosh computer or video card.

Features

— 12-inch monochrome CRT
— 640 horizontal pixels by 480 vertical lines at 76 dots per inch (dpi)
— 67-hertz screen refresh rate
— "Page-white" phosphor screen and dark glass
— Antiglare screen
— Brightness and contrast controls

Benefits

— Sharp display of text and graphics on a full-size screen
— Superior resolution and focus for displaying small type and fine graphic details
— Full width display (including margins) and more than half the height of a letter-size page
— Maintains close size integrity between the screen and printed documents.
— Reduces eyestrain by eliminating flicker.
— Improves brightness and contrast.
— Reflected glare minimized.
— Lets you work comfortably in bright rooms.
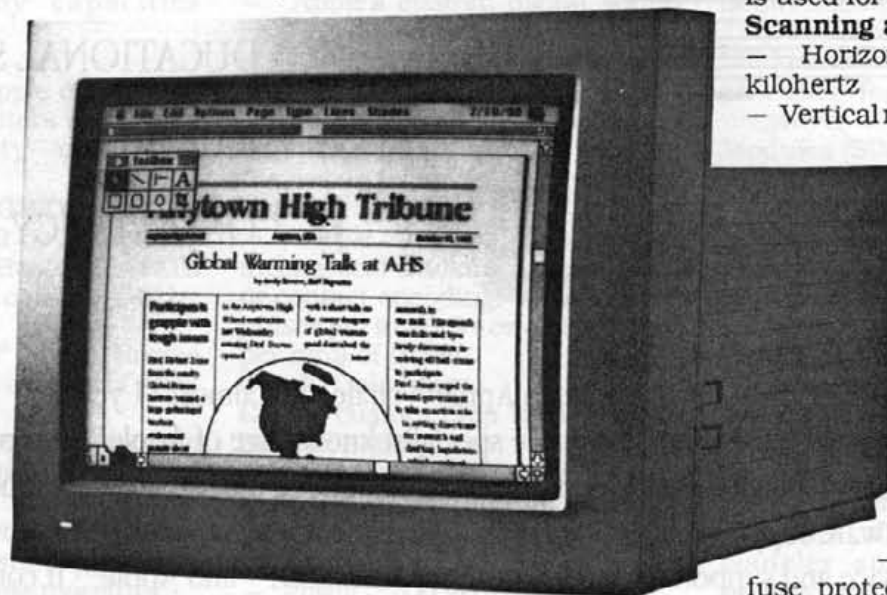
— Lets you adjust the display to suit your preferences and environment.

If you are using a Macintosh IIsi, Macintosh IIci, or modular Macintosh personal computer equipped with an appropriate video card, you can display up to 256 shades of gray simultaneously. If you are using a Macintosh LC, you can display 16 shades of gray.

To use the Macintosh 12" Monochrome Display, you'll need the following:

— A Macintosh personal computer with a built-in video port or an appropriate video card, such as the Macintosh Display Card 4/8, the Macintosh Display Card 8/24, or the Macintosh Display Card 8/24GC.
— A video cable which is supplied with the display.

Picture Tube

— 12-in. diagonal
— Combination phosphor EIA Type P104 and P193 (white), dark glass
— High-contrast antiglare screen

Screen Resolution

— 640 horizontal pixels by 480 vertical lines; 76 dots per inch (dpi)

User Controls

— Power switch on the back panel.
— Brightness and contrast on the right side.

Input Signal

— RS-343 standard; TTL composite sync

Active Video Display Area

— 8.35 in. horizontal by 6.26 in. vertical (212 mm horizontal by 159 mm vertical); remainder of display area is used for border.

Scanning and Refresh Rates

— Horizontal scan rate is 35.0 kilohertz
— Vertical refresh rate is 66.7 hertz

Rise and Fall Time

— 16 nanoseconds maximum

Electrical Requirements

— Voltage: 90 to 132 and 190 to 270 volts AC
— Frequency: 47 to 63 hertz
— Power: 30 watts maximum, all line conditions

Fuse Protection

— Internal power line fuse protection; the display fuse should be replaced with a fuse of the same type by a qualified service technician.

Operating Environment

— Operating temperature: 50 to 104 degrees F (10 to 40 degrees C)
— Operating humidity: 95% maximum, noncondensing
— Operating altitude: 10,000 ft. (3,048 m) maximum

Size and Weight

— Height: 12.2 in (31.0 cm)
— Width: 14.4 in. (36.5 cm)
— Depth: 10.2 in. (25.9 cm)
— Weight: 16 lb. (17.3 kg)

Order number M0298LL/A

Apple Products Library
15-10-90

Macintosh 12" RGB Display

Copyright 1990, Apple Computer, Inc.

The 12" RGB Display is the lowest-cost color display for Macintosh computers. It supports the simultaneous display of color graphics and text. It can be used with any Macintosh personal computer that has a built-in video port or an appropriate video card.

Features
— 12-inch CRT with full analog RGB color
— 512 horizontal pixels by 384 vertical lines at 64 dots per inch (dpi)
— 0.28-mm dot pitch
— 60-hertz screen refresh rate
— High brightness
— Brightness and contrast controls

Benefits
— Will produce excellent, vibrant colors on a full-size screen.
— Lets you display the full width (except margins) and almost half the height of a letter-size page.
— Provides clear, crisp images, even in finely detailed drawings.
— Minimizes flickering and eyestrain.
— Reduces eyestrain.
— Lets you adjust the display to suit your preferences and environment.

The number of colors displayed concurrently depends on the Macintosh model and/or video card that you're using. If you have a Macintosh LC, a Macintosh IIsi, a Macintosh IIci, or a modular Macintosh computer equipped with the Macintosh Display Card 4/8, you will be able to display 256 colors simultaneously. If you have a modular Macintosh equipped with the Macintosh Display Card 8/24, you can display 16.7 million colors concurrently.

To use the Macintosh 12" RGB Display, you'll need the following:
— A Macintosh personal computer with a built-in video port or an appropriate video card, such as the Macintosh Display Card 4/8 or the Macintosh Display Card 8/24.
— A video cable which is supplied with the display.

Picture Tube
— 12-inch viewable diagonal, with in-line gun
— 90 degree deflection angle
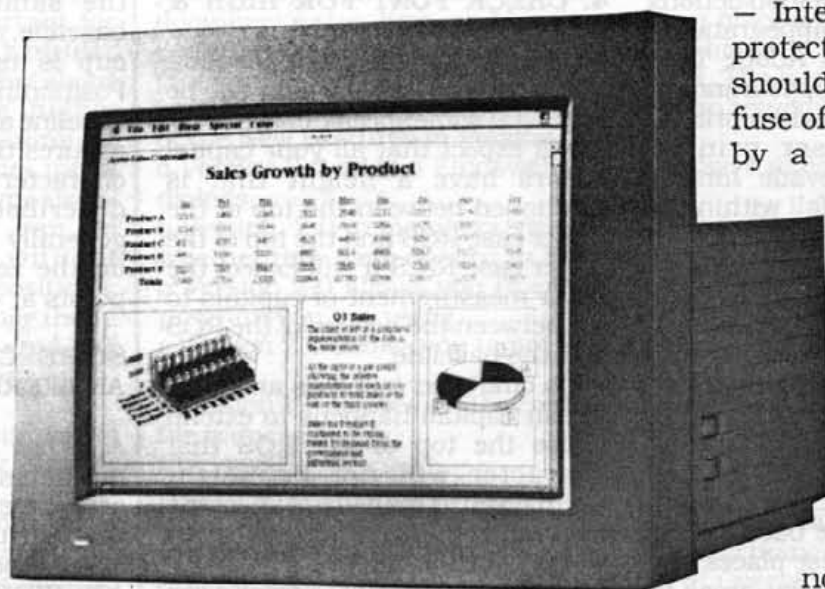
— Black matrix-type dot screen
— Phosphor type P22 (aluminized)
— Faceplate of spherical, gray filter glass
— Shadow mask

Screen Resolution
— 512 horizontal pixels by 384 vertical lines; 64 dots per inch (dpi)
— 0.28-mm dot pitch

User Controls
— Power switch on the back panel
— Brightness and contrast on the right side

Input signals
— Red, green, and blue video signals using RS-343 standard; TTL composite sync

Active Video Display Area
— 8.08 in. horizontal by 6.02 in. vertical (205 mm horizontal by 153 mm vertical); remainder of display area is used for border.

Scanning and Refresh Rates
— Horizontal scan rate is 24.48 kilohertz.
— Vertical refresh rate is 60.15 hertz.

Rise and Fall Time
— 27 nanoseconds maximum

Electrical Requirements
— Voltage: 100 to 120 volts AC
— Frequency: 50 to 60 hertz
— Power: 90 watts maximum

Fuse Protection
— Internal power line fuse protection; the display fuse should be replaced with a fuse of the same type by a qualified service technician.

Operating Environment
— Operating temperature: 50 to 104 degrees F (10 to 40 degrees C)
— Operating humidity: 95% maximum, noncondensing
— Operating altitude: 10,000 ft. (3048m) maximum; 104 degrees F (40 degrees C) operation from 0 to 7000 ft. (2,134m) and derated linearly to maximum 64 degrees F (25 degrees C) at 10,000 ft.

Size and Weight
— Height: 12.2 in. (31.0 cm)
— Width: 14.4 in. (36.5 cm)
— Depth: 10.0 in. (25.3 cm)
— Weight: 35 lb. (15.9 kg)

Order number M0297LL/A
Apple Products Library
15-10-90

Hint hints for Fontographer

Help from Judy Sutcliffe for Fontographer 3.1's hinting mechanisms.

Hint hints

A document that elucidates some of the more arcane aspects of Fontographer 3.1's hinting mechanisms.

by Judy Sutcliffe The Electric Typographer 2216 Cliff Drive Santa Barbara, CA 93109

IN GENERAL hinting instructions will affect only a) the appearance of a font on screen in Adobe Type Manager and b) the appearance of small text type sizes when printed on a 300 dpi laser printer. Characters which evade hinting because they do no fall within the size prescriptions described below will generally not be noticeable.

1. ADJUST CURVE POINTS.

Place a copy of the character into the background, then in foreground reassign curve points to the highest, lowest, farthest right and farthest left sections (the extrema) of each circle or portion of a circle. You will be able to see in the background image just where these places are: they will show up as flat areas in the curving line. Place the curve point in the centre of the flat line section.

2. ADJUST BEZIER CONTROL POINTS (BCPs).

Not only do you need to place the curve points in the positions just described, you also need to adjust the Bezier handles which show up when you select a curve point. These Bezier handles now must be totally horizontal or totally vertical. Hold down the shift key while tugging on a Bezier handle and the handles will jump to and lock in either horizontal or vertical position.

3. ADD POINTS IF NEEDED.

If you have placed the points at the extreme positions and adjusted the vertical/horizontal handles, and your curve line still does not match the background image, then you will need to add another point (not vertically/horizontally constrained) and adjust slightly to accommodate the curve.

4. CHECK FONT FOR HIGH & LOW POINTS.

To set up height normalisation instructions, Fontographer will be looking at some specific characters. It will expect that all your capital letters have a height that is positioned between the top of the upper case ROS and the top of the upper case RH.S It will expect the lower measurement of capitals to fall between the bottom of the ROS and the baseline.

If a character (such as an exotic swash capital) happens to extend above the top of the ROS that character will not be height normalised. (This will not affect the hinting regularization of stem weight.)

Lower case x height in small sizes will be similarly related to the differences in height and depth of the lower case RxS and Ro.S If a character's RxS height is not within these parameters, it will not be affected by height control regularization, though it will continue to be hinted for stem width. (Special case: if the lower case RxS happens to have a swashing arm that rises above the general RxS and RoS heights, the height regularization wizard will read the top of that swash as the upper RxS height and will automatically put the RoS height 5 units above it, which would give you one heck of a high RxS height for that typeface. Therefore: beware of exuberant arms on lower case Rx.S You could

perhaps put the fancy RxS on an option key.)

5. SERIF CUPS.

Try to use a curve point between two corner points for your serifs. Serif regularization in small type sizes will work best if the serifs are the same shape, the points are in the same relationship to the baseline, and the height of the serif cup is not more than 6 units. Positioning the curve point on the baseline and corner points below it assures that the serifs fall in that character bottom alignment zone described in 4 above. Adobe generally puts their curve points on the zero baseline and corner points at -4.

SOME COMMON QUESTIONS ANSWERED:

A. What happens to the hinting mechanism if a typeface has lower case ascenders which are higher than the upper case's upper limit? Many typefaces are like this.
ANSWER: Characters with ascenders higher than the cap ROS will not be normalised for height but the will still be hinted for stem width.

B. Must upper case serifs be the same size as lower case? Sometimes they are larger with a different cupping height.
ANSWER: No, this will be handled automatically. Shape them as you wish.

C. If the circular shape is far from symmetrical so that pairs of top or side curve points are far from each other, will the hinting still work?
ANSWER: It depends on how far is Rfar.S If one curve point is within the extended range of the BCPs of

the paired curve point, yes. Where is that range? Look at the length of the extended horizontal or vertical BCP points. Does a line drawn through the extrema curve point in question at right angles to the BCP extended line touch that line? Then it's within range.

D. What if lower case ascenders are not all exactly the same width? An RlS (lower case ell) might be slightly wider than a RkS for instance. Must a cap RlS and an upper case RLS have the same width? Must all ascenders in the entire font be the same width?
ANSWER: No, Fontographer will pick the most popular four stem widths and allocate hinted widths accordingly.

E. Should all Type 3 fonts be converted with the curve points redistributed as described above, or is this primarily important for fonts that are text fonts with regular and straight ascenders? What about display fonts that are highly calligraphic, italic versions of Roman texts, and fonts not mean for printing in very small type sizes?
ANSWER: Such fonts can be converted to Type 1 without changing the curve point positions, but it is preferable to change them. The subtle changes required will make the fonts look better.

F. When we talk about hinting of RsmallS type sizes, how large is small?
ANSWER: Normalisation takes place in 18 point and smaller type sizes. Larger sizes are unaffected by hints.

G. A Roman and bold that show distinct differences at 24 point in Type 1 appear almost the same at 12 point. Does this mean that bold versions must be made considerably heavier to work as RboldS in small point sizes? Then they are possibly too heavy in the larger sizes.
ANSWER: Experiment to find a compromise stem width that shows up as bold in small sizes but is not too heavy in 24 point. Try adding 10 units to the stem width of a 1000 unit em-squared font for starters. Add proportionally more if your em-square is larger.
&

Findswell 2.0 Facts

from Working Software, Inc.

Findswell 2.0 Facts
Findswell tracks and locates folders, programs and documents on your disk and allows you to open them. Findswell also remembers folders and documents you use frequently and gives you easy and rapid access to them. Even when you know where a document is, it is inconvenient to have to go from folder to folder to get to it. Findswell solves this problem quickly and easily by remembering the locations of folders and documents you use often, giving you immediate access to them. Findswell is Easy to Use To install Findswell, just place it in your System Folder and restart. A Findswell button appears in every Open and Save dialog box - it's right there when you need it. You can open a document or folder that you've set Findswell to "remember". You can have Findswell search your disk for a document. Once it finds a document, you can open it. In addition, Findswell gives you information about the document's size, type, and location. If you place a checkmark next to a document or folder's name, it appears whenever you use Findswell, ready to be opened without searching for it. The last several documents opened, using Findswell or not, are also remembered for you. Some of the New Features in Version 2.0:
o Version 2.0 adds a Findswell button in Save dialogs as well as Open dialogs.
o Version 2.0 remembers recently opened documents regardless of whether they were opened in Findswell.
o Version 2.0 allows you to create new folders without leaving the program you are using.
o Version 2.0 allows you to adjust Findswell's options using the Control Panel.
o Version 2.0 can search the contents of "Get Info Comments" as well as file names.
Findswell -
Awarded the 1987 MacUser Magazine Editor-In-Chief's Award Rated 5 mice by MacUser Magazine - MacUser's highest rating!
Mac Buyer's Guide Rating (Version 1.0): Performance: 9; Documentation and Support: 7; Ease of Use: 10; Value: 8; Overall: 8.5
Review Clips:
"You might not have thought that there was much room for improvement, but fortunately the publisher and author, David Dunham, did." - MacUser, September '88 (announcing a new version.)
"... there are very few programs that you can't live without. ... Findswell is such a program - a simple utility that saves so much time and energy it may be worth 20 times its price." - MacUser
"If you're using a hard drive and are not using Findswell, you're driving a Ferrari in first gear." - The MACazine
"All three Working Software products have earned five-mouse ratings from us. Never before have all of a company's products been top-rated like that. There's an attention to design, detail and testing that other software companies could learn from. Even the box art and other packaging is exemplary. Working Software isn't a major player in the software market, but it's one of the best. It's the sort of company that makes the Mac so exciting a computer." - MacUser
Suggested Retail Price $59.95
Box 1844, Santa Cruz, CA 95061-1844 (408) 423-5696
Distributed by MEDIAGENIC
Findswell is a trademark of Working Software, Inc.

ReadForm and ReadSpell

Info on the modules for Olduvai's ReadIt! O.C.R.

OLDUVAI have announced ReadForm "form scanning and recognition" software and ReadSpell "interactive" spelling checker add-on modules for the upcoming READ-IT! O.C.R. Professional Version 3.0.

According to OLDUVAI president Juan Chotsourian, "These new add-on modules for READ-IT! O.C.R. Professional 3.0 will keep OLDUVAI as the leader in innovative scanning solutions. With the added recognition accuracy ReadSpell will provide, coupled with the new markets now open with a unique product like ReadForm (the first product of its kind for the Mac), OLDUVAI has again positioned itself at the leading edge of O.C.R. and scanning technologies."

ReadForm

ReadForm is an add-on module that provides READ-IT! O.C.R. Professional 3.0 with form scanning and text recognition capabilities. In the same way READ-IT! O.C.R. brings printed text such as contracts into word processors, ReadForm brings the information typed in forms such as insurance claims and multiple-choice questionnaires into databases. Unlike products like Adobe TrueForm that only scan pictures of the forms, using READ-IT! O.C.R. with ReadForm, the actual *text contents* of the forms are *recognized* and output to a formatted text file ready to be imported into a database.

ReadForm is fully trainable, so it can handle almost any form; from registration cards to invoices, and from insurance claims to survey forms and multiple-choice tests. Each different form needs to be "trained" just once; subsequent scanned forms are then recognized almost instantly.

ReadForm features a built-in cross-referenced dictionary similar to the ones used by post office mail sorting machines, so it can automatically cross check addresses, states and zip codes. It also features user-definable dictionaries and field attributes, including formatting for dates, numbers, case, etc.

Another innovative feature allows ReadForm to recognize multiple-choices within questionnaires and tests, allowing schools and market research companies to process their forms automatically without manual data entry.

ReadSpell

ReadSpell is an add-on interactive spelling checker uniquely tuned to correct typical errors sometimes introduced during O.C.R. recognition. ReadSpell works "inside" READ-IT! O.C.R. Professional version 3.0, checking every word and offering suggestions and fixing errors. While most regular spelling checkers are designed solely to correct phonetic or keyboard typos, ReadSpell can correct recognition errors as a "5" in place of an "S", a "0" instead of an "o", etc. In addition to the American dictionary included, optional dictionaries will be available in other Indo-European languages.

ReadForm and ReadSpell will be available during the 3Q, 1990, together with READ-IT! O.C.R. Professional version 3.0.

The suggested retail price of ReadForm will be $295, while ReadSpell will carry a list price of $149. Additional dictionaries for foreign languages will be available separately for $49 each.

ReadForm and ReadSpell require READ-IT! Professional 3.0 running on a minimum of a MacPlus with 2MB of memory and a hard disk. A flatbed scanner is also required to use ReadForm.

The new READ-IT! Professional 3.0, for which ReadForm and ReadSpell are designed, contains key new "automated" abilities including: Built-in universal font recognition for most popular office documents, Page Recognition that automatically separates text from graphics on complex pages, and over 100% improvement in recognition speed. With the READ-IT! O.C.R. product and ReadForm and ReadSpell add-on modules, OLDUVAI Corporation is the established leader in innovative O.C.R. and scanning solutions for the PC and the Mac. The OLDUVAI product line also consists of other Macintosh applications including: VideoPaint - an advanced color painting, editing and special effects program, MultiClip and ClipShare, all available through major distributors such as Ingram/Micro D, Kenfil, Egghead and MacAmerica.

For further information contact:

OLDUVAI Corporation,
7520 Red Road, Suite A,
South Miami,
FL 33143,
U.S.A.
Tel.: (305) 665-4665,
Fax.: (305) 665-0671.

MultiClip

OLDUVAI ships new and improved Version 2.0 of Multiclip, Clipboard/Scrapbook replacement utility The "hottest utility of '89" just got ready for the nineties. OLDUVAI Corporation, announced that Multiclip new Version 2.0 is now shipping. Available since the January MacWorld Expo in San Francisco, MultiClip allows users to have multiple, editable clipboards and scrapbooks, allowing for repetitive cut, copy, and paste actions without the loss of previously cut or copied information, as well as complete clipboard backup, among other features.

According to OLDUVAI president Juan Chotsourian, "After an excellent response last year, we carefully listened to the thousands of satisfied Multiclip users for suggestions - and then decided to implement them in this exciting, totally re-written 2.0 version. It's already become clear that MultiClip has revolutionized the way everyone works with the clipboard and scrapbook; with the new version 2.0 we hope Multiclip will revolutionize the way people work on the Mac - period."

The new, totally re-written Multiclip Version 2.0, includes, among other new features: • Full printing capabilities, including ClipFrame "thumbnails", etc. • Full naming and searching of ClipFrames capabilities. No more time wasted looking for a specific ClipFrame by its contents. • New option allows pasting of a specific ClipFrame selected from a Pop-up menu without opening Multiclip. • New "Backup Mode" for transparent backup of all cut or copied data. • Full 32-bit QuickDraw compatibility for improved editing on true color paint programs. • New option lets you select remove a specific format from multiple-format ClipFrames (such as PageMaker documents). • Improved user interface. • Better memory management and faster speed. • Improved compatibility with all INITs and commercial applications. • The name of the active file now appears in the Multiclip window title. • Five new hot-keys. • New "temporary" files feature.

Multiclip users are also offered the chance to buy up to 32 extra copies of Multiclip 2.0 direct from OLDUVAI for $39 each (plus S&H; 60% off the suggested retail of $99), as well as a copy of ClipShare - OLDUVAI's network clipboard system for $99 for a full network license (plus S&H; over 65% off the suggested retail of $295).

Version 2.0 of Multiclip is available now, at the retail price of $129. All registered users of version 1.0/1.01 are offered a $29 upgrade which includes a complete manual addendum that covers the new features extensively.

As an industry-first, OLDUVAI also announced that it is offering a 30-day money-back guarantee on the Multiclip 2.0 upgrade. For further information contact: OLDUVAI Corporation, 7520 Red Road, Suite A, South Miami, FL 33143, (305) 665-4665. Fax (305) 665-0671.

Spellswell Dictionaries

Legal and Medical Dictionaries for Spellswell from Working Software.

Working Software, Inc., a leading Macintosh utilities publisher, have a popular spell checker and proofreader, Spellswell(TM), which is incorporated into Microsoft Works and Access MindWrite(TM), two of the leading word processing programs for the Macintosh.

With Spellswell incorporated into Works and MindWrite, owners of these programs can use Working Software's Lookup(TM), the Spellswell Legal Dictionary, Spellswell Medical Dictionary and Spellswell Expanded Dictionary. Spellswell, which is also sold separately, is a fast, accurate, easy-to-learn spell checker and proofreader with 60,000 and 93,000 word dictionaries. The number of words that can be added to Spellswell's dictionaries is unlimited and users can create supplemental dictionaries. The added proofreading features include checking typographical errors like "Thistles", double words like "the the", capitalization of proper nouns like "friday", punctuation, homonyms, mixed capitalization, abbreviations, and spaces after a period.

Working Software programs that can be used with Microsoft Word and Access MindWrite include:

Lookup—
Lookup is ideal for Works and MindWrite owners because it accesses the same dictionary as these programs, providing users with a single spelling dictionary for all programs and saving disk space. Lookup is a desk accessory spelling guide that can access the Spellswell dictionary while in any program. Works comes with the Spellswell 60,000 word dictionary, and Works owners who want to expand their dictionary size should know that the Lookup package includes the Spellswell 93,000 word dictionary. The suggested retail price of Lookup is $49.95.

Spellswell Legal Dictionary and Spellswell Medical Dictionary—
Works and MindWrite owners who need legal or medical supplemental dictionaries can use the Spellswell Legal Dictionary or Spellswell Medical Dictionary.

The Spellswell Legal Dictionary contains over 20,000 words and abbreviations. The Spellswell Medical Dictionary contains over 40,000 words and abbreviations. These supplemental dictionary packages come with the legal or medical dictionary merged with the 93,000 word dictionary. The disk also includes the legal or medical dictionary by itself and a merger program for combining different Spellswell dictionaries.

The suggested retail price of Spellswell Legal Dictionary or Spellswell Medical Dictionary is $99.95.

The Spellswell Expanded Dictionary—
The Spellswell Expanded Dictionary contains over 103,000 words. MindWrite comes with the 93,000 word dictionary. Works comes with the 60,000 word dictionary.

The Spellswell Expanded Dictionary is intended for Spellswell users who find that the spelling checker frequently questions words that are spelled correctly, but are not common enough for inclusion in the 60,000 word or 93,000 word dictionary. The Spellswell Expanded Dictionary costs $14.95.

The Expanded Dictionary is not available in stores and can only be purchased directly from Working Software, P.O. Box 1844, Santa Cruz, CA, 95061-1844 (there is a $4.00 shipping and handling charge for all orders).

Additional Information—
Spellswell, Lookup and the Spellswell Legal, Medical and Expanded Dictionaries come with a dictionary merger utility program. The dictionary included with Spellswell, Lookup, Works and MindWrite all allow the user to add an unlimited number of words and abbreviations directly into the dictionary. Many Spellswell users develop large, personalized dictionaries and may want to merge a supplemental dictionary into their existing dictionary, thus preserving their added words.

The Dictionary Merger program is also offered on the Working Software "Free Stuff Disk", a disk of shareware available at no charge to registered customers through Working Software's newsletter, Hard Working Times. Customers send a blank disk to receive the "Free Stuff Disk" (this helps offset the $4.00 shipping and handling charge). s Working Software, Inc. is an affiliated publisher of MEDIAGENIC, which has exclusive worldwide sales and distribution rights to its product line. Santa Cruz, Calif.-based Working Software, Inc. also markets the Findswell(TM) document locater and path saver.

The Spellswell Expanded Dictionary is a spelling dictionary for use with Spellswell, Lookup AND Microsoft Works and Access MindWrite which include Spellswell.

The Spellswell Expanded Dictionary contains over 103,000 words (the "store" versions of Spellswell and Lookup include both a 60,000 word and 93,000 word spelling dictionary: the Spellswell that comes with Microsoft Works contains a 60,000 word spelling dictionary).

The Spellswell Expanded Dictionary is for Spellswell and Lookup users who find that the spelling checker questions correctly spelled words, words that might not be common enough to have been included in the dictionary.

The Spellswell Expanded Dictionary comes with a Dictionary Merger utility program. Since Spellswell and Lookup allow the addition of an unlimited number of words directly into the dictionary, many Spellswell and Lookup users develop large, personalized dictionaries. These additional words can be added to the Expanded Dictionary using the merger program. Owners of both Spellswell and Lookup can use the same dictionary with both programs, saving disk space and allowing access to all added words. The Expanded Dictionary is not available in stores and can only be purchased directly from Working Software. Send $14.95 plus $4 for shipping and handling to:

Working Software, Inc. P.O. Box 1844 Santa Cruz, CA 95061-1844

SuperSqueeze™

New image-compression software announced by SuperMac.

SuperMac have announced SuperSqueeze™ image-compression software a new product based on C-Cube Microsystems' Technology. SAN JOSE, Calif., SuperMac Technology introduced SuperSqueeze™ still-image compression software, and announced that it will be included at no cost with all of the company's color graphics cards and storage systems. The development of SuperSqueeze is a result of a mutual technology-sharing agreement between SuperMac and C-Cube Microsystems. Under the pact, SuperSqueeze supports ICI™ (Image Compression Interface), C-Cube's newly announced standard application interface for image compression.

C-Cube provided SuperMac with its JPEG-standard image-compression software, which produces exceptional disk-space savings for color graphics professionals. The announcement was made at the 1990 Seybold Computer Publishing Conference & Exposition at the San Jose Convention Center.

SuperSqueeze is the newest member of SuperMac's family of color-graphics solutions for Macintosh® computers. It dramatically compresses such large-scale images as 35mm color slides, 8-1/2" x 11" photographs, color separations, and complex graphics by as much as 80:1—reducing storage requirements by 98 percent in some cases. It also improves network performance, since compressed files can be transmitted more quickly and occupy less space on network servers.

A beta user of the product, Peter Farago, president of Farago Advertising in New York City, said, "SuperSqueeze is an ideal solution for anyone involved in producing professional quality graphics on the Mac. Our work involves high-density scanned images and complex color graphics files that typically require a great deal of storage. With SuperSqueeze, we have been able to save considerable disk space, improve network performance and get exceptional image quality."

SuperSqueeze Included with All SuperMac Color Cards and Storage Systems

SuperSqueeze will be available in January 1991, at which time SuperMac will include it at no cost with its color graphics cards and storage systems. Customers who purchase these cards and storage systems after October 1, 1990 will be eligible to receive the SuperSqueeze software free from SuperMac. Other existing SuperMac customers will be able to purchase SuperSqueeze separately for $49.

"We're including SuperSqueeze as a standard feature of most SuperMac products—just as we've done with our SuperMatch™ color matching software—because we have found their capabilities meet the key requirements of our customers, the most demanding graphics professionals," said Karen Dillon, product marketing manager for SuperSqueeze. "We believe that SuperSqueeze will help ease the storage crunch for large color images and facilitate enhanced work-group productivity while delivering superior price/performance."

SuperSqueeze works with any 24-bit PICT or TIFF graphics file from any application on any Macintosh II graphics hardware. Depending on image quality, SuperSqueeze can reduce the size of complex color graphics files by as much as 96 percent with no perceived visual loss, thus freeing up valuable disk space. For example, a 24-bit, high-resolution scanned image could be 24 megabytes before compression. With SuperSqueeze, the same image might only require one megabyte and could fit on a single 3 1/2" diskette.

SuperSqueeze assures users of impeccable image quality due to its support of the Joint Photographic Experts Group (JPEG) standard for image compression. JPEG guarantees high image quality at high compression rates and allows users to transfer and exchange files with other JPEG systems.

C-Cube Microsystems is the leading developer of image compression technology used in applications such as color desktop publishing, digital photography and digital video systems. Based in San Jose, Calif., C-Cube was founded in July 1988 to establish its digital imaging technology as the industry standard for computer, communication and consumer electronics applications.

SuperMac Technology, located in Sunnyvale, Calif., is a leading developer, publisher, and manufacturer of color solutions for Macintosh graphics professionals. The company's products include graphics cards; 16", 19" and 21" color monitors; graphics storage systems; color graphics software and color matching utilities. SuperMac delivers color graphics solutions for end users in such markets as graphic arts, desktop publishing, engineering, and business graphics.

Point-of-Sale Savings

Sunnyvale, Calif., SuperMac Technology, in conjunction with Apple Computer's new product introductions, announced a special holiday promotion with instant rebates of $350 to $800 on selected color-graphics solutions for Apple Macintosh computers. Customers will receive these rebates automatically at the time of purchase.

Tailored to meet the requirements of three distinct

groups of color graphics professionals, the SuperMac holiday packages are available from October 15, 1990 through January 5, 1991 from Authorized SuperMac Resellers nationwide.

"By combining the right graphics cards with the appropriate large-screen, true-color monitors, our holiday packages offer the best available value in professional color graphics systems today," said Steven Blank, SuperMac's vice president of marketing.

The three SuperMac Holiday Packages are:

• 1. The Macintosh IIsi 19" Professional Color Graphics System

The ideal complement to one of Apple's newest computers, the Macintosh IIsi, this package bundles the Spectrum/8™ Series III color graphics card with SuperMac's 19" Color Display. This combination provides the high resolution, large-screen viewing area, and 256-color functionality that's perfect for spot-color graphics design and desktop publishing. In addition, this package includes Apple's NuBus™ adapter for the Macintosh IIsi, so customers can get up and running quickly.

Normal list prices for the monitor and graphics card are $3,200 and $1,399 respectively, for a total of $4,599. With an Instant Holiday Rebate of $350, the price is $4,249. Customers also receive the NuBus adapter, a $249 value, for free.

• 2. The SuperMac 19" Trinitron Color Graphics System

This package bundles two of the company's best selling products: the Spectrum/24™ Series III Color Graphics Card and the 19" Trinitron Display. The result is a 24-bit system that delivers accelerated drawing rates and true-to-life colors that are displayed with exceptional clarity and resolution. This is an excellent package for both spot-color and continuous-tone color applications.

Normal list prices for the monitor and card are $4,200 and $3,999 respectively, for a total of $8,199. With an Instant Holiday Rebate of $400, the price is $7,799.

• 3. The High-Performance 21" Professional Color Graphics System

This represents SuperMac's top-of-the-line solution for sophisticated, color-critical graphics applications. It includes a 21" Color Two-Page Display, which provides two full pages on the screen, with brilliant colors and superior resolution. Driving the monitor is the the fastest 24-bit color graphics card available for the Macintosh, the Spectrum/24™ PDQ board. And because strict color fidelity is essential to demanding color professionals, the new SuperMatch™ Display Calibrator is also included.

List prices for the monitor and card are $4,799 and $4,999 respectively. They are normally available at a bundled price of $9,498. With an Instant Holiday Rebate of $800, the price is $8,698. The display calibrator, valued at $695, is included free.

CONTACT: Jennifer Delamare
SuperMac Technology
485 Potrero Avenue
Sunnyvale, CA 94086
(408) 773-4403

FOR SALE

1 PACE Colour Palette Teletext card (for high-res viewdata graphics) £75

2 Apple][GS internal power supply unit...... **reasonable offers**

3 Omnis 2 Program (database - 5.25" disks) £50

4 Inmac //e work station (in beige steel)(especially design to sit on top of //e to hold disk drives, modem etc., and monitor on the top) £15

5 Micron Xceed 2MB Memory Expansion Kit for Mac II SE/+ .... **reasonable offers**

6 WordStar Wordprocessing Program with manual for //e £50

7 Teak Disk Box Containing 100 Apple //e disks (5.25') mixed games, database,spreadsheets, graphics, and wordprocessing programs]e.g. AppleWorks £80

8 Additional box of 100 disks with similar programs as above e.g. WordPerfect £80

N.B: (a) Will consider reasonable offers for all the above bought together.

(b) Will seriously consider exchange for commensurate value of any items above, e.g. "Thunderscan"; or Copy II Plus Version 8 +; (for software items); 3.5" Disk Drive; Macintosh to IIGS Files conversion program [with instructions]; Graphic Tablet program(s).

'Phone Gordon (after 6.30pm Mon-Fri) .... ▓▓▓ ▓▓▓ ▓▓▓▓

FOR SALE

1 Memory IC Tester/EPROM burner, Software & Manual £35

2 Cirtech Plusram Card pop 256k , Software & Manual £100

3 Videx Videoterm80 card inc inv ROM 2nd char EPROM and full manual £55

4 Z80 Softcard clone inc Microsoft Softcard manuals 1&2 £35

5 16k RAM Cards (2 of) Cableless type .... (each) £23

6 IC Tester (Sunshine) inc.software and manual £35

7 Snapshot Card (IIe) and Combination Pack (Shell, Printerrupt, Shuttle and Copykit) £100

8 Apple PRODOS 1.0 Tech Manual & PRODOS Exerciser £16

9 Apple PRODOS Users Kit (II+ & IIe) inc. Users Manual & Disk (unregistered) £20

All above items are new and unused and in original packing

Following items are 'used but good'

10 Z80 Softcards (2 of) .... (each) £20

11 Mountain Computer Clock cards (3 of) .... (each) £25

12 DMS C9 NTSC/RGB Colour cards (2 of) .... (each) £15

13 Videx Videoterm 80 col card(clone) inc. inverse ROM £50

14 APPLESOFT Tutorial, Reference and Basic Programming Manuals (bound Taiwan print) .... £5 each or £10 the three
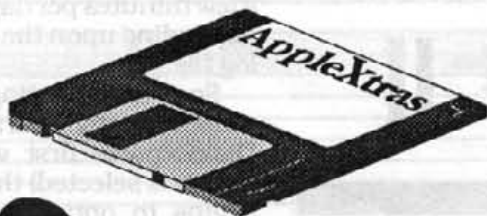
WANTED

Original of Dollars and Sense c/w manual for Apple II+

'Phone Chris (evenings) .... ▓▓▓▓ ▓▓▓▓▓▓

Disk Express™ II

A review of this hard disk utility
by John Kishimoto.

Introduction

One of the inevitabilities of owning a hard disk, is the fragmentation of files and the consequential deterioration in performance. As files are saved and deleted, there is an increase in the number of small free spaces on the disk. Larger files are then forced to occupy several such spaces resulting in fragmentation. The read/write head of the hard disk consequently has to move over larger portions of the disk surface in order to access these files.

The solution to this problem is the optimization of the hard disk i.e. move the fragmented files into contiguous locations on the disk. Traditional optimizers have achieved this by shuffling the files (often several at a time) until some sort of order is achieved. Unfortunately, this process often takes a considerable period of time and can be inconvenient. DiskExpress II, however, optimizes the hard disk in a completely novel manner.

DiskExpress II

DiskExpress II is a control panel document which has to be placed in the system folder for initialization on startup. The program monitors and logs the file activity of each volume. Analysis of the log file takes place on a daily basis, and is used to determine the classification of files to be used during the optimization process.

All files are classed as either "anchored" or "moveable". Anchored files are those associated with copy protection, virtual memory and partitions. Moveable files, on the other hand are those which are "active" (regularly used but not modified), "volatile" (files that change size), "sporadic" (used

occasionally but not modified) and "dormant" (files that have not been used). Files are arranged on the hard disk in the following priorities:

1) Volume Directory
2) Active Files
3) Volatile Files
4) Free Space
5) Sporadic Files
6) Dormant Files

Anchored files are left untouched, and the moveable files fitted around them. This may result in one or two fragments.

Since optimization takes place one file at a time, DiskExpress can be interrupted without risk. In addition, this approach also allows its use on a nearly full hard disk. Once optimized, subsequent defragmentation should take only

a few minutes per day, the duration depending upon the analysis of the log file.

Soon after booting, the program automatically starts optimizing. DiskExpress first verifies (if this option is selected) the volume then begins to optimize on a priority basis, based on the analysis of the activity of the last five days. Because the whole process takes place in the background, the user's work is not interrupted in any way. It can, however, be disconcerting for the first time user, to suddenly see hard disk activity for no apparent reason. For those who feel the need for information, or distrusts automatic optimization, the control panel allows full control of the program's functions.

Control Panel

Figure 1

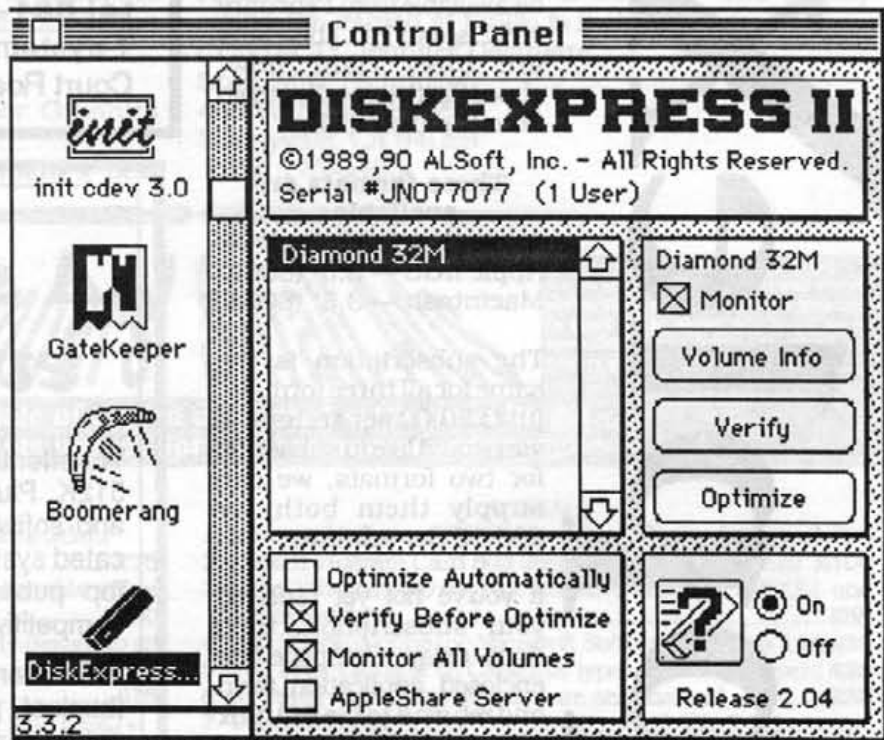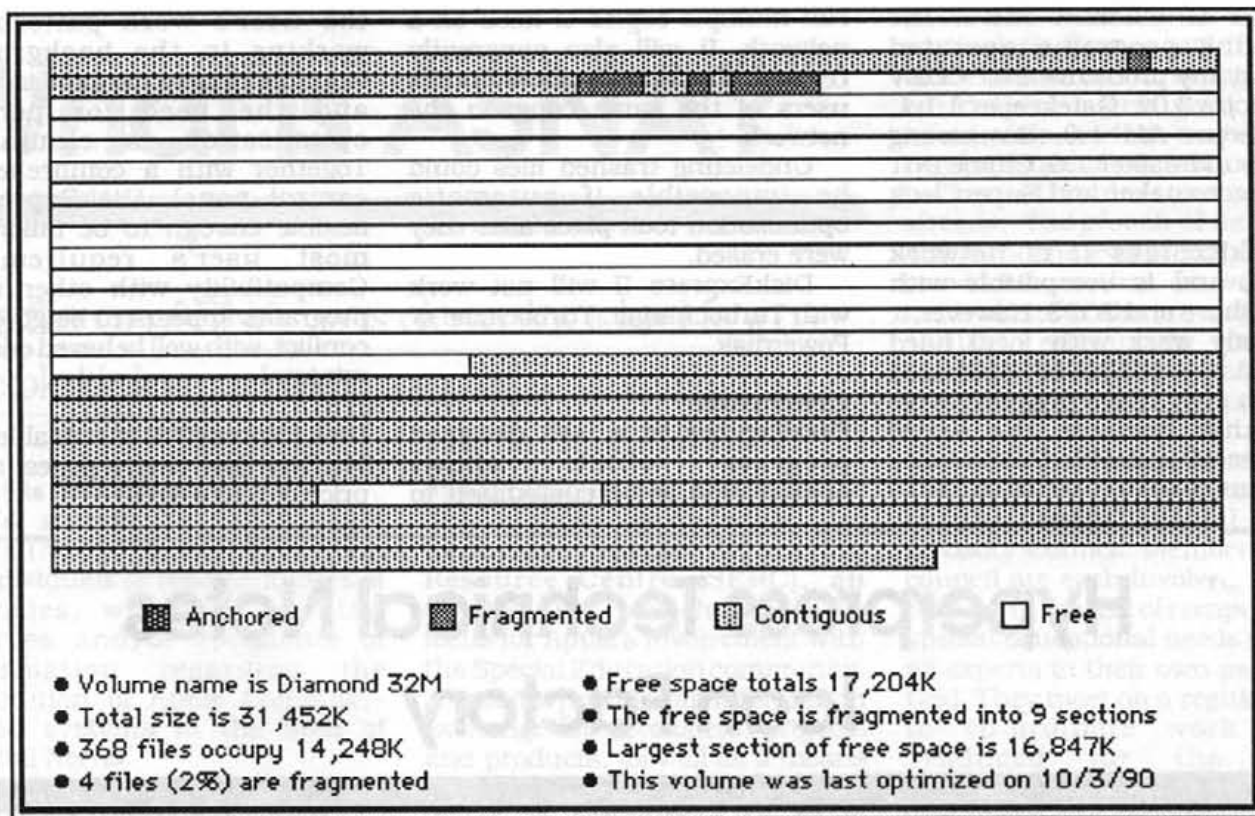Figure 1 shows the DiskExpress control panel, which is divided into 4 control sections. The mid-left window shows all the eligible volumes attached to the computer. An eligible volume is a hard disk or partitions locally attached to the Macintosh and not write protected. The highlighted name is the volume currently subject to optimization.

The mid-right section consists of a check box and 3 buttons. If the

■ Anchored   ■ Fragmented   ▥ Contiguous   □ Free

- Volume name is Diamond 32M
- Total size is 31,452K
- 368 files occupy 14,248K
- 4 files (2%) are fragmented

- Free space totals 17,204K
- The free space is fragmented into 9 sections
- Largest section of free space is 16,847K
- This volume was last optimized on 10/3/90

Monitor option is checked, the program will monitor and record all file activity on the selected volume. A volume must be monitored before it can be optimized automatically.

The most reassuring display is the one generated by pressing the "Volume Info" button. This provides a pictorial representation of the distribution of files (Figure 2) on the hard disk with clear indication of the anchored, fragmented, contiguous and free spaces. Other statistics such as volume name, size of volume, number of fragmented files, fragmented free space and others are also displayed, (see screen dump above).

Both the "Verify" and "Optimize" buttons will immediately start either the verification or optimization of the hard disk. If either of these options is selected, a dialog window is generated, which indicates the progress of the chosen function. A large digital clock style "percentage completed" display is used. The window has a "Cancel" button which closes the dialog and terminates the job.

All three buttons disappear when DiskExpress is automatically verifying or optimizing. These are replaced by a "Status" button which presents a

dialog window indicating the progress and type of function. These automatic functions can be terminated using the "Cancel" button, or the dialog closed (but not terminated) using the "Done" button.

The bottom left section consists of 4 check boxes which controls automatic optimization, verify before optimize, monitor all volumes and AppleShare server.

The "on" "off" buttons located on the bottom right of the control panel can be used to start or stop the operation of DiskExpress. The help icon button generates a series of windows giving a brief outline of the controls.

The Package
In addition to DiskExpress, the package contains the following programs:

Multipartition
A stripped down version of the partitioning software.

MultiDisk.
The options not imple-mented include security functions and resizing.

DiskCheck
A diagnostic program which allows media verify, directory check and

search for anchored files.

Set File Count
A utility for increasing the number of files per folder to 200.

Manual
A short (50 pages), easily understood manual.

Compatibility and other problems
DiskExpress II will run on the Mac Plus, SE, SE/30, II, IIx, IIcx, IIci, IIfx and the Portable running System 6.0 or greater.

The current version is 2.04 and is Multifinder compatible. This version apparently corrects some compatibility problems which existed in the earlier programs.

The size of this program is in excess of 100Kb and although it will happily run on a 1Mb machine, you may have problems with some programs (Apple's Hypercard would not allow the tools to be used). DiskExpress can be bypassed by pressing command,option,shift on startup, but even this procedure uses about 48Kb. A better alternative is John Rotenstein's INIT CDEV (or an equivalent) which can bypass DiskExpress completely.

DiskExpress was tested with a

number of different cdevs. The following programs operated without any problems. INIT CDEV 3.0, Moire 3.02, Gatekeeper 1.1.1, Gatekeeper Aid 1.0, Boomerang 2.0, Soundmaster 1.6, Chime INIT 3.0, Macromaker and SuperClock 3.9.

DiskExpress II is network aware, and is compatible with AppleShare and TOPS. However, it will only work with local hard disks. A network server would need its own copy of the program. Note also that because the serial number is embedded within the program, it will detect attempts to run multiple copies of itself on a network. It will also apparently reveal information about other users of the same copy on the network.

Undeleting trashed files could be impossible if automatic optimization took place after they were erased.

DiskExpress II will not work with Turbocharger, Turbocache or Powerdisk.

Conclusion
DiskExpress is a well designed program which allows optimization to be customised to the user's work pattern. By working in the background, valuable computing time isn't lost and the need for periodic optimization is eliminated. Together with a comprehensive control panel, DiskExpress is flexible enough to be tailored to most user's requirements. Compatibility with other major programs appears to be good and conflict, with well behaved cdevs, is minimal.

Disk Express™ II is available from MacLine (see centre pages) at the price of £59 + VAT.   ❤

Hyperpress Technical Notes
Icon Factory

Hyperpress Technical Notes
Icon Factory

#1: Memory and Art Libraries
HyperCard, through at least version 1.1, experiences a problem with low memory and the Icon Factory art libraries when reading large numbers of library cards in one session. Apparently, HyperCard does not release the memory used by icon resources from previously read cards, resulting in some strange behavior if you try to read large groups of cards with 1MB machines or with small MultiFinder partitions. If you experience this behavior, we recommend restarting HyperCard. Of course, we also recommend getting more memory.

#2: Installing Icons into Stacks
Some users have reported problems installing icons using the Install Icon button. If after using the Install Icon button in either an art library or the Icon Factory™ stack, you don't see your icon displayed on the card of the new stack, try the following:
Go to the card where you want the icon installed. Go up to the Edit menu and choose Paste Button. Your icon will now be available for you to use.

#3: IMPORTANT: Installation Note
Be sure to install the Icon Factory™ and the Icon Factory™ Help stacks in the HyperCard Stacks folder. Failure to do so could cause unexpected results.

#4: Finder Bundle Bits on System 6.0.x
Apple's version 6.0.x modified the way the Finder uses "bundle-bits"—little flags in the Finder's directory. You may find instances where your HyperCard stacks appear to be listed as "Art Library Document". The solution is simple: Move all of your art libraries into their own separate folder within the HyperCard stacks folder. To reset the Finder's reference to the other stacks (they were never actually modified, but the Finder thinks they were), simply double-click the HyperCard application. To prevent this from occuring again, never double-click to launch an art library from the Finder. Use the Art Library button from within Icon Factory.

#5: HyperCard 1.2.2 Problems
Some users have experienced intermittent problems with Icon Factory v1.0 and HyperCard v1.2.2. If you find that you're experiencing problems using Icon Factory, you may wish to temporarily go back to an earlier version of HyperCard. We're trying to isolate this problem (we haven't been able to accurately repeat it), and will issue a patch or fix.

#6: Online Technical Support Hotline
Hyperpress maintains an active technical support forum on CompuServe. You can access us by typing "GO APVENB" (without the quotes). Typically, you'll get much better support response by using the online support service. We're also available on MCI Mail (mail to "HYPERPRESS") and AppleLink (mail to "D0968").

What is ASNA?

This file on ASNA was downloaded from AppleLink.

What is ASNA?

ASNA stands for the Apple™ Special Needs Alliance. It is a group of individuals or representatives of agencies, who are potential sources and/or recipients of information regarding the application of Apple Computer-based systems in the area of Special Needs.

It was established in October 1989 with the following basic aims:
• To co-ordinate the activities of specialist groups.
• To pool information for users and devlopers.
• To find and create solutions.
• To represent the interests and needs of Special Education and assist Apple U.K. in meeting those needs.

Members include individuals from a wide range of professions, schools, charitable bodies, and developers. The strength of ASNA lies in the diverse backgrounds and skill sets of its members who are linked by a desire to improve the quality of life for others by use of technology. ASNA is not just for those involved in 'education', we hope to include increasing numbers of members from the medical professions, care, and rehabilitation.

The Redbridge Special Education Resource Centre and Apple Regional Information Centre for Special Educational Needs.

Apple U.K have established over forty Regional information Centres (ARICs) throughout the country in order to promote the educational use of Apple technology and stress Apple's commitment to schools. They supplement existing LEA resources and provide opportunities for teachers to develop classroom materials.

Redbridge Special Education Resource Centre (SERC), an existing ARIC, was chosen as the focus for Apple's involvement with the Special Education community. As such it provides an information exchange for developers, projects and products, as well as a means for Apple to distribute information which is considered to be of particular interest to Special Education.

In particular it provides:
• Information in response to telephone requests by experienced and interested educationalists.
• Access to information concerning hardware, software and new solutions for Apple products, via the Special Education Resource Directory. This directory contains detailed and useful information about Apple and third party products (which run within or alongside the Apple computer).

Redbridge SERC has undertaken to maintain a database of the ASNA membership in order to make the dissemination of information a smooth and efficient process. Contact the Centre if you would like to be included , and you will receive information every time it becomes available.

In addition the Redbridge SERC has access to public domain software which is available via the same channels.

ASNA activities at the Redbridge SERC, formerly the Redbridge Special Education Microelectronic Resources Centre (SEMERC), are coordinated by Jean Tait. Jean has vast experience in the use of computers, switches, and peripheral devices in meeting special needs.

Apple UK provides Jean with the latest information from overseas particularly France and the USA, where there are flourishing special education groups. Such information, and the contacts that can be established, have resulted in considerable time savings already. The growth of interest in ASNA and the level of enquiries has convinced us that as well as a central information point we should encourage regional meetings, as well as specialist sub groups e.g. speech therapy.

The ASNA Advisory Council

The Activities of ASNA are guided by the Apple Special Needs Advisory Council. Members of the council are each involved in work relating to the use of computers for special educational needs and are all experts in their own particular field. They meet on a regular basis to co-ordinate work being produced for the Apple Macintosh™ range of personal computers and organise meetings for the various Apple user groups.

Useful Addresses of the ASNA Advisory Council:

Mrs Jean Tait
Redbridge SERC
Dane Centre
Melbourne Road
Ilford
Essex
IG1 4HT
Tel 081 478 6363

Martin Littler
Northwest SEMERC
Fitton Hill CDC
Rosary Road
Oldham
OL8 2QE
Tel 061 627 4469

Mick Thomas
NCET
Sir William Lions Road
Science Park
University of Coventry
Coventry
CV4 7EZ

Michael Perry
Apple UK Education Support
18.10.90

Pipe Dream

The first game from LucasFilm reviewed by Peter Kemp.

Introduction

"Pipe Dream" is the first game for the Macintosh available from LucasFilm, an offshoot of the wallet of George "Star Wars" Lucas. Arriving in a sturdy cardboard box, the package comprises an 800K disk, a general instruction book, a Macintosh specific card and a code wheel.

The game comes as both a full-fledged application (with good sound) taking around 700K of your hard disk space, together with a DA version (no sound) which consumes a mere 31K of your system folder. The game is not physically copy protected, but each time it's booted, the player has to enter three symbols from the code wheel. A slight nuisance but they have to protect their investment, I suppose. The major compensation is that you don't ever need to use the original disc again, even as a key disk. (The DA version doesn't require the code wheel.)

The Game

Imagine being plumber-in-chief at the Acme Chemical Company. Acme makes a miracle sewer cleaner called flooz, but unfortunately they're making it faster than it can be piped into their tankers. As head plumber, you've got to build an emergency pipeline with spare plumbing parts. The longer your pipeline, the longer Acme keeps from sinking under a sea of sickly green sludge.

You have seven shapes of pipe at your disposal. Using the mouse, each piece needs to be placed so that it provides a continuous pipe from the starting piece. Pipe sections are presented randomly, they can't be skipped nor can they be rotated. Fortunately, pipes don't have to connect with each other at the instant they're laid. A shape that would be awkward "here" will be very useful "there". One of the attractions of the game is this planning ahead, five or ten moves in advance.

After a short delay, the pressure really starts to mount as the flooz starts to ooze out of the starting piece, into the pipeline you've constructed. It's up to you to keep placing pipes until the flooz catches up with you or it spills off the edge of the playing field. Providing you've laid (at least) the minimum length of pipe specified for the current round, you move up to the next level.

Scoring is straightforward, with points for each piece of pipe through which the flooz travels. Once the minimum length has been traversed, each further piece of pipe scores double points. Extra points can be gained for making flooz cross itself in a cross pipe. Penalties are charged for each piece of pipe which was laid but not filled with *flooz*.

Opinion

The game appeals to me for three main reasons. It's a simple idea . The principles can be learnt in a few seconds, yet there is considerable element of strategy. It's presented in an attractive manner, with considerable thought given to the needs of different players. (There are beginner, expert and two- player modes). The higher levels offer a series of challenges of increasing complexity. Not just speed, but obstacles to be circumnavigated, one-way pipes and other brain twisters. (There are even password protected jumps to the higher levels, so once you've learnt how to get past level 4, you can start directly there next time. The same for levels 8, 12, 16 and 20. This probably holds true all the way up the line. I'm currently battling with level 22 - there are 36 screens in all!)

I like this game - it's simple, it's challenging and it passes the "just one more go" test with flying colours! Highly recommended.

(Reviewed on a Mac+ with 2.5Mb, Finder 6.00(B1) and System 1-6.0.3.)
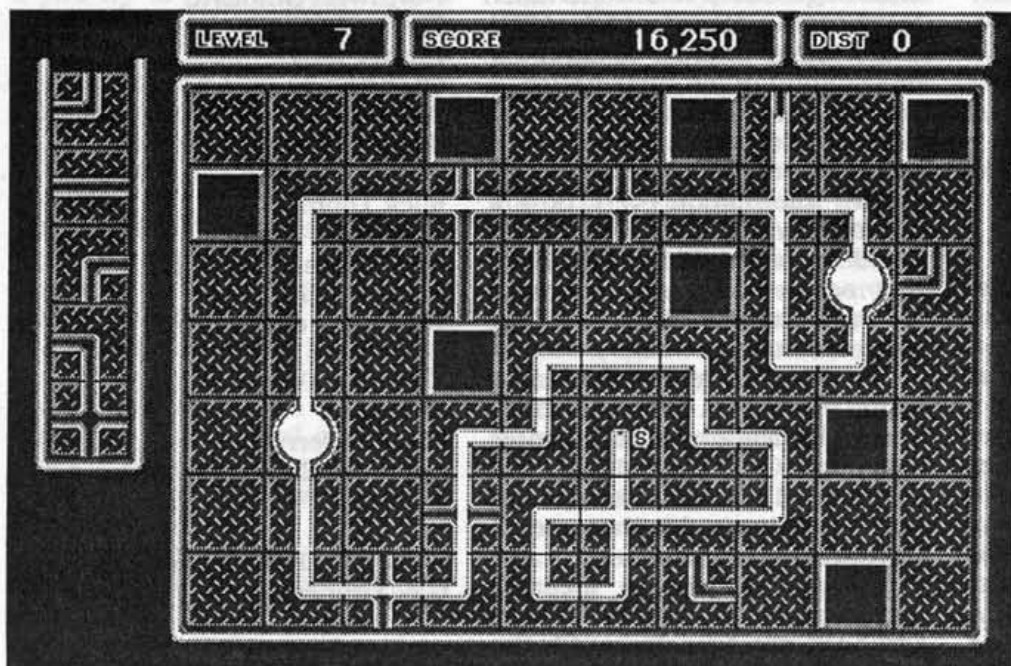
WelltrisTM

Peter Kemp gives a second opinion on Welltris, from Spectrum Holobyte™.

Despite its reputation as a "serious" machine, game-playing does have a place in the life of a Macintosh user. Serious mouse bashers have Crystal Quest. Budding town planners can experiment with Sim City. And only those dead from the neck up haven't been been found - at one time or another - muttering the words "Just one more go..." while hunched in front of a game of Tetris. Its deceptive simplicity, coupled with a need for strategy and physical dexterity, has taken the Macintosh world by storm over the past couple of years.

And now we have Welltris, from same author. Distributed by Spectrum Holobyte, the game comes in both monochrome and colour versions in the same package. The review was done on a Mac+, so compatibility with the Mac II range (let alone the LC) isn't known. Like Tetris, the game is

physically unprotected. However, each time the game is booted, the player is asked to enter some information, from a short booklet provided with the game. Play often enough and you'll be able to quote the area and capital of Turkmenistan without looking them up! (188, 500 square miles and Ashkhabad, since you ask.....)

The screen shot gives an example of a game in progress. Looking into a four sided well, the player has to rotate the pieces as they fall down the walls as well as moving them around the walls in either a clockwise or anti-clockwise

direction. As the pieces hit the "floor" of the well, they slide across until they hit an obstacle. They remain frozen there until either a row or column is completed at which time the row (or column) is deleted and the remaining pieces close ranks. Scoring depends on the time taken for pieces to fall and the number of rows and columns the player can complete.

So far, so good. Problems come in three flavours: -the further you get into the game, the faster the pieces come; -the complexity of the pieces increases with time; -if a piece doesn't fully land on the floor (ie some remains sticking "up" the wall) then the wall is impassable for

the next three pieces. A blocked wall plays havoc with normal strategy! To my surprise, I haven't found myself playing it nearly as much as I thought I would. My reservations are these:

-the most important drawback is the speed of the game. The initial stages are fairly easygoing, but at a certain stage all hell breaks loose and for me at least it becomes unplayable. The transition is far more severe than "level 9" in Tetris.

-getting the hang of the controls for the falling pieces is far more complicated than Tetris.

For those who found Tetris too easy, and want a major challenge, then Welltris is what you've been waiting for. For the rest of us, if you haven't got Tetris then get that instead. If you've got Tetris and still got money to burn, I'll be reviewing some more games in the next issue.
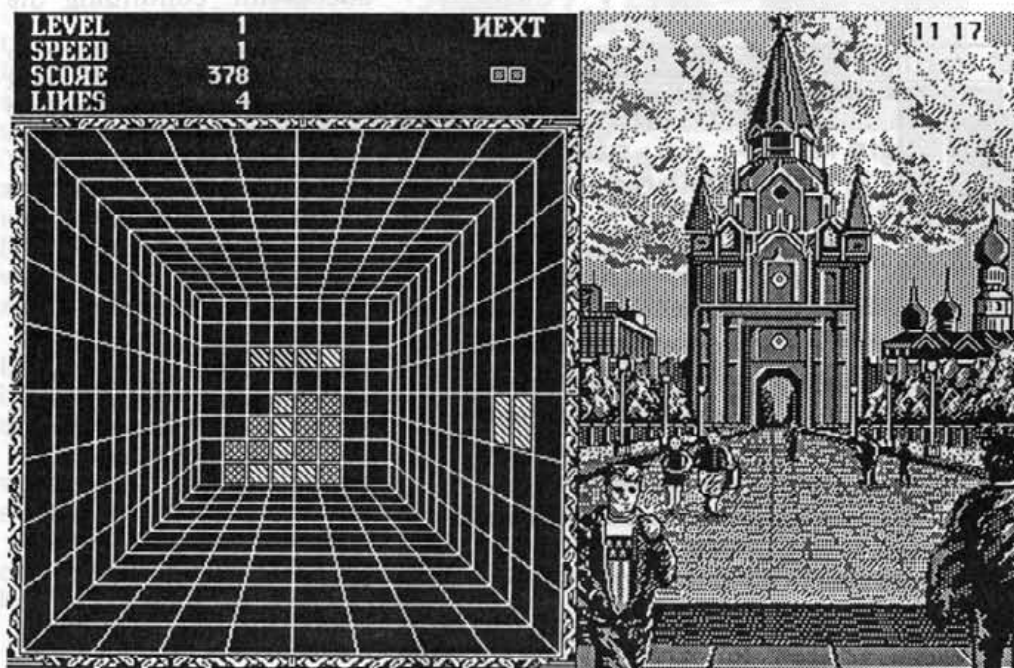
Starflight

A review of this game from Electronic Arts by Peter Kemp.

"Starflight" is a space exploration game from Electronic Arts. It comes on two 800K disks - one for colour systems and one for the rest of us. Installation is as simple as copying it to a hard disk. There is no "on disk" game protection, but every launch from Starbase, means entering information from the code wheel supplied with the game. (My wheel was punched off centre, so I kept on entering the wrong information!)

The game is based in the far future. Recent archaeological work has uncovered remains of the Old Empire, showing it to be more than just a myth. As captain of the starship Goonshow (you get to name your own vessel!) the player is charged with gathering as much information about the Old Race as possible. This will involve assembling and training a crew, earning the money to buy fuel and then striking off into deepest space. There are several ways to earn money. The legal way (and most boring) is to go prospecting and sell the proceeds. The fun way (providing they don't fight back) is to

blast enemy ships out of the sky and scavenge the wrecks.

The scope of the game is enormous. There are some 270 star systems (with 800 planets between them) to explore. There are seven different alien species to worry about. Some of these are friendly, some are hostile and some indifferent. Each type of alien needs different to be handled properly, as each has information of value to the player. Sometimes it's necessary to cajole, sometimes to threaten and sometimes to run like hell.

As the player starts to amass a bankroll, the armour, weapons and engine power of the spacecraft can be enhanced, as well as its ability to carry more and more booty. Travelling around known space is effected either by conventional hyperspace travel or (if they can be found) by worm-holes which whip the ship from one side of the Galaxy to the other in the blink of an eye. Travelling through these can be tricky if the ship's navigator hasn't got his act together!

As the game progresses, news

arrives that stars are starting to go nova for no apparent reason. The cause is unknown, but perhaps one of the Minstrels can provide information. Of course you've got to find a Minstrel first. And then you've got to be able to understand what you've been told. And even when you understand what you've been told, do you have the necessary resources to do anything with that information?
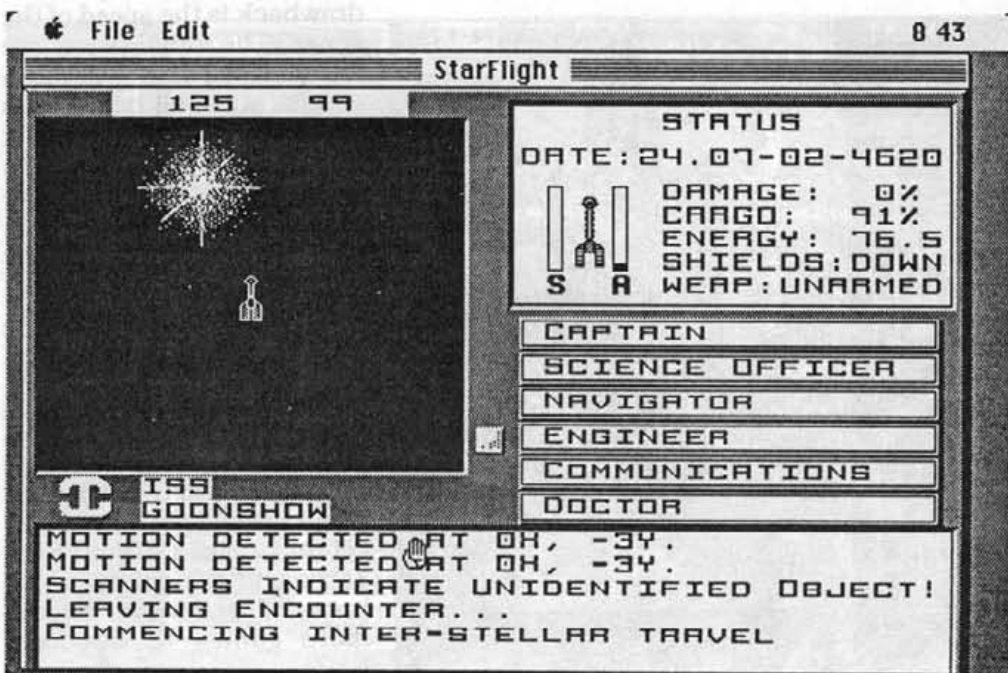
The game itself is a curious mixture. Perhaps the screenshot will show what I mean. The screen looks like relic of the days when we all had Apple II's and only forty columns to play with. I was astonished to find that all the text in the game is in **upper case** for goodness' sake! (If the screenshots on the packaging are to be believed, the Macintosh II version has improved slightly in that lower case is used, but it still bears an uncanny resemblance to a Commodore 64 screen. What's wrong with Geneva, I wonder?)

Reading the documentation, gives the game away. It's marked "copyright 1986 and 1989". It looks as if the game was originally designed for the Commodore 64, with conversions for the Amiga, Atari St and Macintosh some time later. It shows.

I was constantly irritated by the way the interface didn't act in a "Macintosh" way. A lot of actions are modal so that, for example, raising shields during communication with another ship means: terminating the communications link entirely; selecting the navigator; turning on the shields; returning to the communications officer; attempting to "hail" the other ship and - only if successful; continuing the conversation.

If a conversation starts to go badly, an enemy might start to shoot with little or no warning. More than once I've found myself blasted out of space before I've had time to go through all this rigmarole. (And you can't spend the entire game with shields up - they consume too much energy.

I'm not very impressed with this game - it's certainly not up to Electronic Arts' usual standard. If you don't mind cluttered screens, poor adherence to the User Interface Guidelines and a fairly sluggish turn of speed, then you might enjoy the game. For most people, I suggest keeping your money for something else.


```
 File   Edit                                          8 43

                           StarFlight

   125      99                    STATUS
                            DATE:24.07-02-4620
                                 DAMAGE:    0%
                                 CARGO:    91%
                                 ENERGY:  76.5
                                 SHIELDS:DOWN
                           S  A  WEAP:UNARMED

                              CAPTAIN
                              SCIENCE OFFICER
                              NAVIGATOR
                              ENGINEER
                              COMMUNICATIONS
   ISS                        DOCTOR
   GOONSHOW
MOTION DETECTED AT  0H, -3Y.
MOTION DETECTED AT  0H, -3Y.
SCANNERS INDICATE UNIDENTIFIED OBJECT!
LEAVING ENCOUNTER...
COMMENCING INTER-STELLAR TRAVEL
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windoWatch

Their recent Press Release outlines this
new utility software package
from Hi Resolution WizzardWare

Hi Resolution WizzardWare announce the release of windoWatch — the completely automatic timing utility for professional Macintosh users.

windoWatch is the new productivity tool for all businesses where time accounting is important. Human memory is unreliable so windoWatch monitors the time spent working on documents without requiring any user action.

Data is collected whenever the Macintosh is on. The windoWatch application will provide a complete account of all the time spent on the machine. Entries can be sorted and compressed to provide meaningful information on which to invoice or to simply be aware of how the day was spent. The file can be printed from the application.

windoWatch will pause and screen save after a user-specified time. Whilst paused, time is not assigned to a window but to a collective entry called 'paused'. In-built crash recovery ensures a maximum of 5 minutes data will be lost.

Because it's unhelpful to record time to an unnamed window there is a very useful INIT provided to remind windoWatch users to save newly created documents.

windoWatch will prove invaluable to typesetters, bureaux, designers, freelancers etc. because:

• if they invoice base-d on time windoWatch will provide the answer

• if they work to a fixed price they can check their estimates against how long they've actually spent

• if they want to improve efficiency then windoWatch can be used to keep an eye on themselves and their operators

• if their Macintosh is shared then windoWatch will show it's utilisation

• time is, after all, money windoWatch will reveal all!

Our previous product, stopWatch provides in-depth time accounting for a range of clients, projects and activities. In discussions with bureaux, designers and typesetters we found that many of them wanted a product that monitored all the work being done without having to be used! windoWatch was created for them, and for all businesses where time spent working on a Macintosh is important.

Features : Benefits

Completely automatic:
You don't have to actually use windoWatch — from startup to shutdown it will be transparently gathering information about the time spent working on each window.

Easy installation:

windoWatch will be monitoring usage within minutes of opening the package.

Automatic pausing:
When the machine isn't being used time isn't being assigned to a job — windoWatch features automatic pausing after a user-selectable period of inactivity. Screen saving is an option whilst paused.

Application to process data:
The windoWatch application has been written specifically to process the data produced. As well as sorting and compressing, it allows you to 'group together' similar entries to provide a coarser level of information. Printing is available, as is on-line help.

Accurate information:
windo-Watch works hard to ensure that it finds the 'real' window on which you're working. 'Floating' palettes, toolboxes and 'irrelevant' windows are ignored by simply adding them to a list. When shipped windoWatch already knows about most 'common' applications.

'Special case' processing:
windoWatch features 'hooks' to external filters for easy and flexible extensibility. One such filter, for instance, allows windoWatch to 'see past' story editor windows in Aldus PageMaker® 4.0 and assign time to the document below.

Pertinent information:
You don't necessarily have to sift through the entries for every application — a user-tailorable list allows you to collect only 'generic' information if required, for example 'Finder windows'.

Crash protection:
Time isn't lost. In the event of a power failure or system crash a maximum of 5 minutes work will be unaccounted for.

User controls:
A Control Panel programme provides control over such aspects as the pause interval, screen saving, 'irrelevant' windows and 'generic' applications.

Costs

windoWatch costs just £85 plus VAT. The programme is distributed by Softline — 081 642 4242.

Further information may be obtained from Softline: or direct from the developers. Hi Resolution WizzardWare — 0580 211194.

Resolution
Wizzard Ware

Press Releases

DATA AND DOCUMENT RECOVERY SERVICES JOIN FORCES

S&S International, well-known in the computer world for their "no fix, no fee" data recovery service, have entered into an informal agreement with the Data & Archival Damage Control Centre, specialists in corporate document recovery. The agreement means that, even when fire or flood apparently destroys both paper and disk-based records, the likelihood of recovering the majority of a company's records after a disaster will be considerably increased.

Helene Donnelly, founder and managing director of the Data & Archival Damage Control Centre, had come across the S&S service when browsing through a magazine. "The complementary nature of our services struck me immediately," commented Donnelly.

"With the growth of information storage on magnetic media as well as in traditional paper form, clients have been asking about the possibilities of computer data recovery. I'd been thinking for some time that we should look for a partner in this area, and what S&S were offering seemed exactly right."

S&S spokesperson Pat Bitton added: "I'd heard about Helene's company when they won the BBC Radio Four award for innovation a while ago, and remember being fascinated by the idea of repairing paper documents. Having seen some of the work that the centre has done, I'm even more impressed. It's a natural complement to our data recovery service, and I'm delighted that Helene feels we are the right partner."

The Data & Archival Damage Control Centre specialises in world-wide emergency rescue and restoration of water, smoke and fire damaged documents. In its relatively short life, the centre has won several awards for its work in the UK.

S&S International offer the only no-fix, no fee data recovery service covering bold hard and floppy disks, back-up tapes and cartridges from all types of desktop computer. Data in DOS, Unix, Xenix, Novell, CP/M and Macintosh formats can all be handled. Clients have included most of the major banks and a number of blue chip corporates throughout the country.

For further information:
S&S International: Dr Alan Solomon on 0494 791900
Data & Archival Damage Control Centre: Helene Donnelly on 071-837 8215

THE MACUSER AWARDS 1990
DesignStudio

DesignStudio, Letraset's advanced page layout software has been voted the best desktop publishing and presentation package by the judging panel and readers of MacUser.

In the 1990 MacUser Awards, announced on Wednesday night, 7th November 1990, DesignStudio beat rival nominations, Aldus Pagemaker 4.0 and Multi-Ad Creator 2.1, to win the category.

DesignStudio has been developed by Letraset to be the perfect tool for creating professional page designs. The program enables designers to work on computer in a way which mimics their drawing board. The program retails in the UK at £595, excluding VAT.

DesignStudio was one of three Letraset software packages in the final nominations of the MacUser Awards. ColorStudio, Letraset's sophisticated 32-bit true colour image assembly and manipulation package, was one of the three final nominations in the Graphics section. FontStudio, Letraset's type and logo creation package, reached the final three nominations in the MacUser Awards Type section.

Further information from:
Helen Melhuish Public Relations, 071-637 5505

2000 dpi UPGRADES FOR SIEMENS HIGHSCANS

MacEurope, in conjunction with Siemens, is happy to announce the availability of 2000 dpi upgrades to any ProScan or Siemens Highscan user. The upgrade, which is a hardware and software implementation, will be carried out by MacEurope's skilled engineers at its factory level Service Centre. It will enable the user to utilise the most recent version of Highscan software, version 1.5E. This allows scanning of greyscale images up to 800 dpi and line art to 2000 dpi, multiple scanning frames and an increase in the level of detail in greyscale images.

The usual price for this upgrade is £1,695. The upgrade is available at a special price of £995 until 31 December 1990.

For full information please contact:
Colette Fanning, MacEurope Ltd, 0603 741222

Young Software Designer Awards

Announcement from Blyth Software

Blyth Software is launching a new Bursary Memorial Award in memory of Paul Wright, the founder and former chairman of the Company, who died in September this year.

The Paul Wright Bursary forms part of the Company's Young Software Designer Awards, set up two years ago to promote and recognise excellence in software design.

The 1990/91 awards scheme has just been launched and the Bursary from the Suffolk-based software design company is worth £2,300 to the recipient. The money will be used to give the winner the opportunity of carrying out a year's post-graduate research or other academic work at the end of his or her degree course and will go to the student whose application has most capacity for future development.

With registration packs being distributed in the week commencing Monday October 29th, students from across the country have already notified Blyth of their intention to take part and entries from higher education faculties are up on 1989. The awards were announced in June, to allow tutors to build the scheme into project work. The students will have five months in which to develop their application.

The Young Software Designer Awards were the first of their kind to be launched in the U.K. — a fact recognised by the Prime Minister Mrs Margaret Thatcher when she presented the awards to the winners last year.

"We are extremely pleased with the level of response so far," said Mr David Searnan, Blyth's new Managing Director, who will be chairing the judging panel and is also the man responsible for developing the company's Omnis database software.

"Obviously we hope that the Bursary, in addition to the two major prizes, will give students an additional incentive to follow through with developing their applications and that the quality of work remains as high as it was last year."

Once again the awards are being jointly sponsored by Tulip Computers UK, who are putting up a Tulip 386sx for the 'best presented application' and the AppleCentre (West London) whose prize is a Macintosh Plus for the 'most original application'.

In addition to the major prizes and the Bursary there are also five Blyth Software "SmartPad" software programs to be won and every entrant will receive a limited edition "Young Software Designer" gift for having successfully designed and submitted an application.

Judging will take place in March and the awards presentation will be April 1991.

For further information, please contact:
Debbie Charman, Blyth Software Ltd, 0728 603011

Letter Box

Letraset UK
195/203 Waterloo Road
London SE1 8XJ

Telephone 01-928 7551

Ewen Wannop
Apple2000
PO Box 3
Liverpool L21 8PY

8 November 1990

Dear Ewen

On page 3 of your October issue you have reprinted various letters which might appear somewhat confusing to readers.

Walter Haefliger first wrote to our marketing manager in December '89 on the subject of our RSG to DesignStudio upgrade offer. DesignStudio's launch price was £795, and our offer to registered RSG users was a special price of £495. Mr Haefliger complained that he had read of a cheaper offer available in the States. This was a short-term promotion for US residents only.

Letraset UK's software pricing policy takes into consideration transport and import costs in shipping the software from the US, localisation and the provision of local comprehensive user support. As with other software houses the cost of Letraset's software varies from country to country and prices cannot be compared internationally.

You have reprinted a letter from me which was in no way connected with Mr Haefliger's correspondence. This concerned a separate, limited period offer mailed out to all registered users.

I would also like to take this opportunity of pointing out that, since the major development costs of our Studio range of software have been absorbed, we have been able to pass on this benefit to our customers by reducing the prices of our products in the UK, as reported on page 67 of your October issue. The award-winning DesignStudio (MacUser best desktop publishing and presentation package 1990) is now available at only £595.

Yours sincerely,

Lesley Gray
Manager, Graphic Design Software

P.INK SQL

P.INK SQL is a relational database to be used with the Apple Macintosh. Until now, there was no database available for the Mac that was designed for the performance requirements of today's applications. Data security, speed and flexibility plus the fluent communication between database and frontend application are demands that are fulfilled for the first time by P.INK SQL.

P.INK SQL is a database based on a subset of SQL that achieves high performance with Ethernet and LocalTalk networks. More than one Macintosh computer can function as a data server with up to 25 workstations per P.INK SQL data server. Workstations communicate with data servers using Structured Query Language and follow the client server principle.

A complex request such as "show me every self-employed businessman in Seattle who is older than 50 and who's last name begins with 'Sm'" will be compiled, syntax checked and compressed before being sent over the network which dramatically reduces network stress and boosts performance since the data server does not have to interpret the SQL request.

The compiling process does not affect the frontend-application because the workstation software expects standard SQL requests. These requests are prepared and sent to the data server without any special processing by the application.

SQL is a defined industrial standard that is also used by other databases, i.e. Sybase. This gives the application the flexibility to simply switch databases if processing speed or number of workstations exceeds current system capacity.

Further enhancement is added by P.INK's SQL Query Optimizer allowing faster data seizure by optimizing requests according to specific strategies. For example, looking for all the names beginning with "Sm" in 20,000 data records takes no longer than one fifth of a second or seven workstations can add five to six entries per second to a table with five keys.

The optimizing becomes even more important when requests are extremely complex and interlocked. Still the performance of any database depends on the quality of the frontend application that presents the data to the user.

P.INK SQL consists of the data server, the P.INK SQL workstation driver and several links to standard software packages that connect the database to your software.

Links to QuarkX-press, RagTime, Wingz, Microsoft Excel, 4th Dimension, Foxbase, Supercard and Hypercard are available. Other links are under development. Software developers can easily add P.INK's SQL database to an application with P.INK's C-interface developer package.

For further information, please contact:
MacVonk, P O Box 420, 3700 AK Zeist, 2e Dorpsstraat 67, The Netherlands

Pom's

We are sorry to inform you that, due to its office being broken into, six weeks ago, and all the equipments (Macs, hard disks, modem, fax,...) being stolen, we had to stop publishing Pom's. Recreating all that was lost was just too much work.

You can however write us to get a list of all the papers published in Pom's in its 50 issues, so that you may order the issues and disks which interest you.

Editions MEV will stay around and continue to distribute software for the Apple II, II GS and the Macintosh lines. We also just started publishing an Excel Letter and will follow up in January with a Word Letter.

La Lettre d'Excel and La Lettre de Word

Each of these two publications is a 24-page letter published every other month and dealing about the respective software in all its environments : Macintosh, OS/2 and Windows. Each issue comes with a disk, and includes tutorials expertise, tips, informations, a hot-line,...

First issue :

La Lettre d'Excel :
October 15th, 1990
La Lettre de Word :
January 15th, 1991

Editions MEV - Pom's
12 rue d'Anjou
78000 Versailles

Phone :
  33 1 39 51 24 43
Fax :
  33 1 39 49 54 65

I Wish to receive documentation on :
☐ Software
☐ Freeware
☐ Fonts
☐ Pom's Table of contents (50 issues)

I subscribe to La Lettre d'Excel :
☐ One Year (6 issues)   930 FF ht
☐ Last issue   236 FF ht
I subscribe to La Lettre de Word :
☐ One Year (6 issues)   930 FF ht
☐ Next issue   236 FF ht
Total   - - - - - -

☐ Macintosh   ☐ IBM 3,5''   ☐ IBM 5,25''

I choose as a welcome present :
☐ Pom's Art Mac
☐ Pom's Art Apple // (3.5'')   * indicate type of card

ORDER FORM

Name :
Adress :

Credit card n° :
Visa, Mastercard, Eurocard*
Expiry date :
Charge the amount of :

Pom's gives solutions on graphics, word processing, communication, games...
A lot of software are available, as fonts, patches, TimeOuts for AppleWorks, Freeware...

AppleXtras
Mac 6

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│ ResEdit f  ResEdit Helper ][.MacWrite  RAM Check v2.0 f │
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│  ICON Designer v3.0  ICON Manager f  Shutdown/Restart f │
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│ Fast Formatter v3.0 f  SCSIProbe   Bund-Aid f  │
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AppleXtras Mac 6
Disk 411

This disk contains the following:-

ResEdit v1.3d1 with docs.

ResEdit Helper II (MacWrite)

RAM Check v2.0 with info.
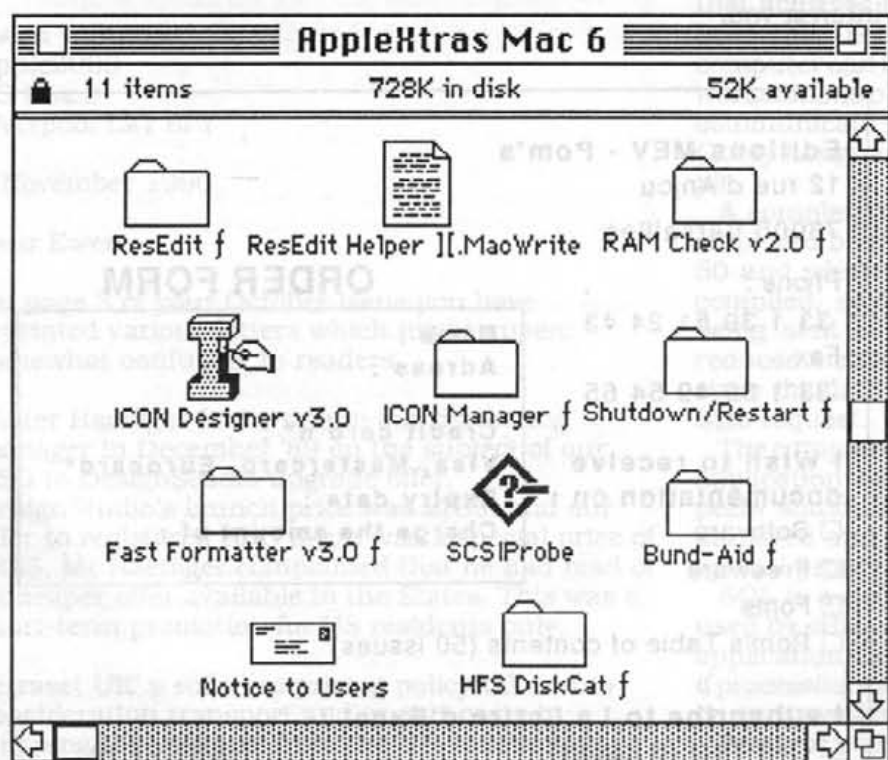
Icon Designer v3.0.

ICON Manager 1.2 with notes.

Shutdown/Restart with docs.

Fast Formatter v3.0

SCSI Probe v2.03 (CDEV)

BundAid with notes.
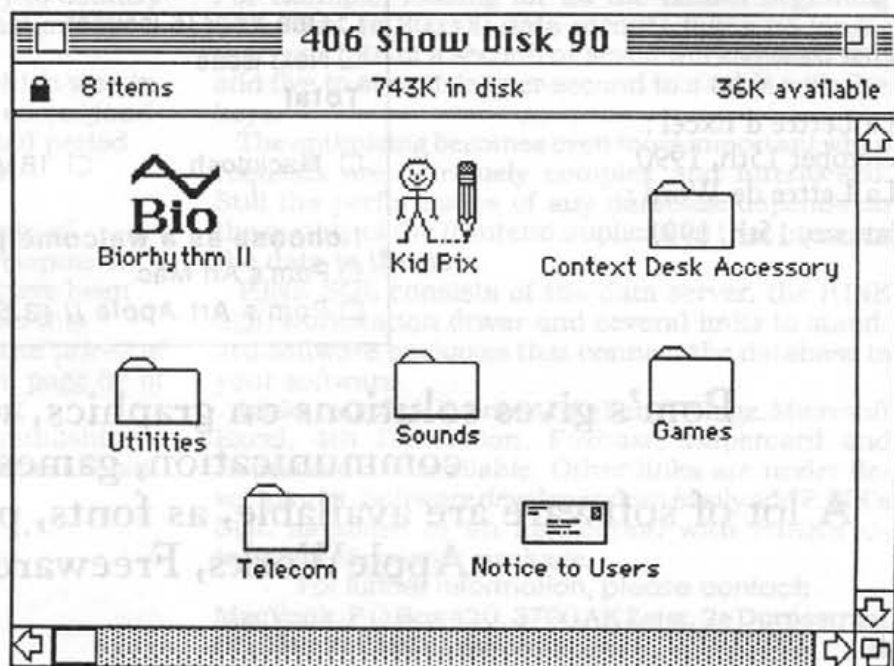
HFS DiskCat.

Show Disk '90
Disk 406

This disk contains the following:-

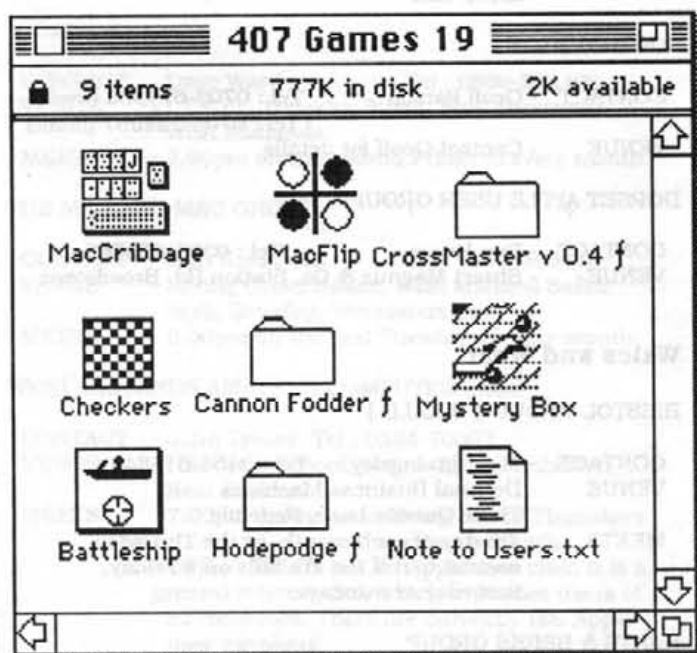Biorhythm II
KidPix (superb but easy drawing)

Context Desk Accessory
SureSaver
Sound Master with new sounds.
TypeIt4Me
Grabber
QCat (Quick Catalog) with docs.

Columns - game
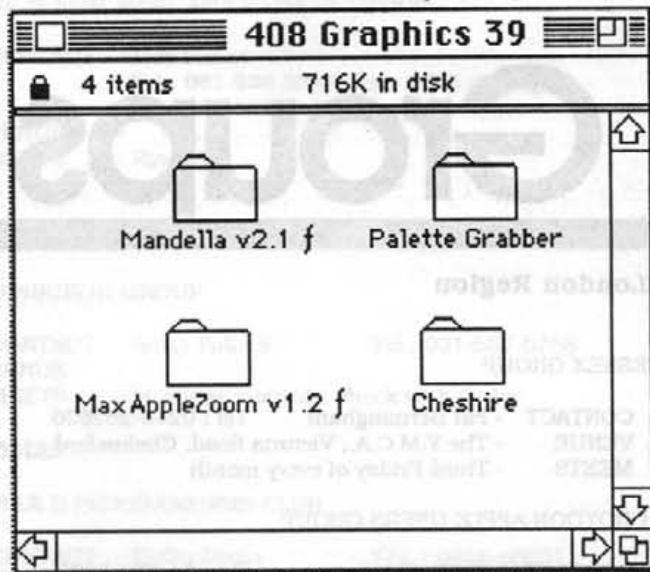LogoDaedalus - game

TermWorks 1.3 with docs
Set Serial 1.3

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│ ▢ ☰☰☰☰ 406 Show Disk 90 ☰☰☰☰ ▢ │
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│ Biorhythm II    Kid Pix   Context Desk Accessory │
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│  Telecom    Notice to Users                   │
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Mac Library

407 Games 19

9 items   777K in disk   2K available

MacCribbage   MacFlip   CrossMaster v 0.4 ƒ

Checkers   Cannon Fodder ƒ   Mystery Box

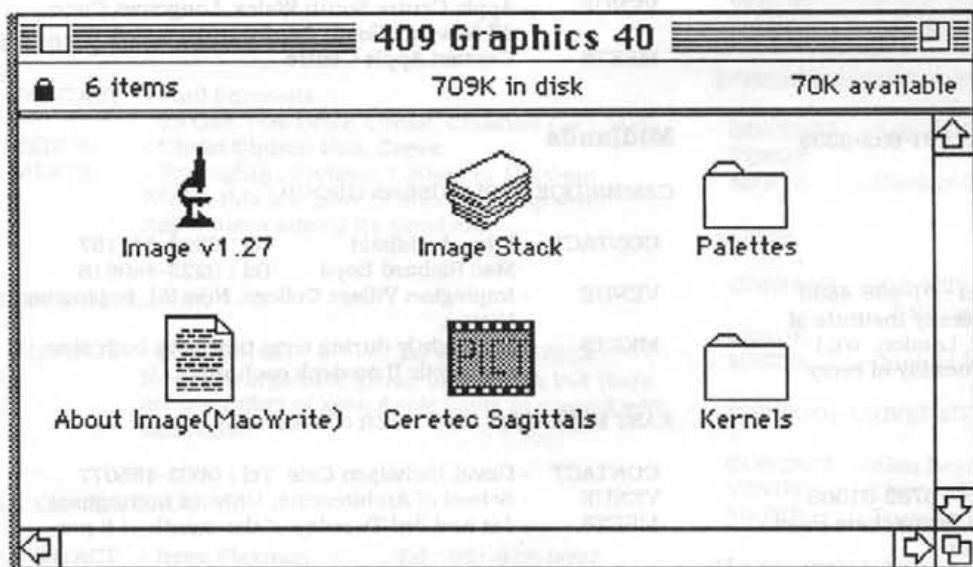Battleship   Hodepodge ƒ   Note to Users.txt

Disk 407 Games 19

This is just the disk to give a games-lover for a Christmas present. It contains the latest versions of eight tantalising games. Some such as Battleship involve just luck, but others like Cannon Fodder involve judgement and skill.

408 Graphics 39

4 items   716K in disk

Mandella v2.1 ƒ   Palette Grabber

Max AppleZoom v1.2 ƒ   Cheshire

Disk 408 Graphics 39

MaxAppleZoom reprograms Apple's standard Mac II video card so that it displays a 704 * 512 pixel screen instead of the normal 640 * 480. Mandella draws mathematical objects called fractals. These fractals can be extraordinarily beautiful and complex. Palette Grabber is used to store favourite palettes and colour tables. Cheshire is a fun graphics program.

409 Graphics 40

6 items   709K in disk   70K available

Image v1.27   Image Stack   Palettes

About Image(MacWrite)   Ceretec Sagittals   Kernels

Disk 409 Graphics 40

Image is a public domain program for the Macintosh II for doing digital image processing and analysis. It can acquire, display, edit, enhance, analyze, print, and animate images. It reads and writes TIFF, PICT, and MacPaint files. It supports many standard image processing functions, including histogram equalization, contrast enhancement, density pro-filing, smoothing, sharpening, edge detection, and noise reduction.

410 Games 2

2 items   742K in disk   44

Solarian II v1.02

Solarian II 1.02 Docs

Disk 410 Games 20

Solarian is a full colour 'space in-vaders' type game for the dedicated games player.

User Groups

London Region

ESSEX GROUP

CONTACT - Pat Bermingham   Tel : ▓▓▓▓ ▓▓▓▓▓
VENUE - The Y.M.C.A., Victoria Road, Chelmsford
MEETS - Third Friday of every month

CROYDON APPLE USERS GROUP

CONTACT - Graham Attwood   Tel : ▓▓ ▓▓▓ ▓▓▓▓
VENUE - 515, Limpfield Road, Warlingham, Surrey
MEETS - 7.30pm on the third Thursday of every month

HERTS & BEDS GROUP

CONTACT - Norah Arnold   Tel : ▓▓▓▓ ▓▓▓▓▓
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 : ▓▓▓▓ ▓▓▓▓▓
VENUE -
MEETS - Contact Richard

LONDON APPLE II GROUP

CONTACT - Chris Williams   Tel : ▓▓ ▓▓▓ ▓▓▓▓
VENUE -
MEETS - Contact Chris

LONDON MACINTOSH GROUP

CONTACT - Maureen de Saxe   Tel : ▓▓ ▓▓▓ ▓▓▓▓
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 : ▓▓▓▓ ▓▓▓▓▓
VENUE - Sir Mark Collett Pavilion, Heaverham Road,
Kemsing, Sevenoaks, Kent
MEETS - Phone Jim for details

SOUTH EAST ESSEX MAC GROUP

CONTACT - Mick Foy   Tel : ▓▓▓▓ ▓▓▓▓▓
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 : ▓▓▓▓ ▓▓▓▓▓▓
VENUE - Deverill Computers (dealer)
Itec House, 34-40 West Street, Poole, Dorset
BH15 1LA

SOUTHAMPTON

CONTACT - Geoff Parson   Tel : ▓▓▓▓ ▓▓▓▓▓ (work)
   Tel : ▓▓▓▓ ▓▓▓▓▓ (home)
VENUE - Contact Geoff for details

DORSET APPLE USER GROUP

CONTACT - Ron Hoare   Tel : ▓▓▓▓ ▓▓▓▓▓
VENUE - Stuart Magnus & Co, Station Rd. Broadstone

Wales and West

BRISTOL GROUP (B.A.U.D)

CONTACT - Malcolm Ingsley   Tel : ▓▓▓▓ ▓▓▓▓▓
VENUE - Decimal Business Machines
Three Queens Lane, Redcliffe
MEETS - 7th day of each month, or the Thursday
nearest to it if the 7th falls on a Friday,
Saturday or Sunday.

HANTS & BERKS GROUP

CONTACT - Joe Cade   Tel : ▓▓▓▓ ▓▓▓▓▓▓
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 : ▓▓▓▓ ▓▓▓▓▓
Mac Richard Boyd   Tel : ▓▓▓▓ ▓▓▓▓▓
VENUE - Impington Village College, New Rd, Impington,
Histon.
MEETS - Fortnightly during term time with both Mac
and Apple II on deck each night.

EAST MIDLANDS MAC USER GROUP

CONTACT - David Nicholson Cole   Tel : ▓▓▓▓ ▓▓▓▓▓▓
VENUE - School of Architecture, Univ. of Nottingham
MEETS - 1st and 3rd Tuesday of the month at 8 pm

GATEWAY COMPUTER CLUB

CONTACT - Vern   Tel : ▓▓▓▓ ▓▓▓▓▓
Robin Boyd   Tel : ▓▓▓▓ ▓▓▓▓▓
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 : ▓▓▓▓ ▓▓▓▓▓
VENUE - Shakespeare Pub, Braunstone Lane, Leicester
MEETS - 7.30pm to 10.0pm on the first Wednesday of every month

MIDAPPLE

CONTACT - Dave Ward   Tel : ▓▓▓▓ ▓▓▓ ▓▓▓
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 : ▓▓▓▓ ▓▓▓▓▓
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 : ▓▓▓▓ ▓▓▓▓▓
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 : ▓▓▓▓ ▓▓▓▓▓
VENUE - Michelin Sports Centre
MEETS - 2nd Wednesday of each month

CREW COMPUTER USER CLUB

CONTACT - Paul Edmonds
         ▓▓ ▓▓▓ ▓▓▓ ▓▓▓▓, Crewe, Cheshire CW1 ▓▓▓
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 : ▓▓▓▓ ▓▓▓▓▓
No active organised group in this area but there are a number of keen Apple users in contact with each other.

LIVERPOOL GROUP

CONTACT - Irene Flaxman   Tel : ▓▓▓ ▓▓▓ ▓▓▓▓
VENUE - Check with Irene
MEETS - Second Monday of every month.

THE NORTH EAST APPLE COMPUTER CLUB

CONTACT - Philip Dixon   Tel : ▓▓▓▓ ▓▓▓▓▓▓
VENUE - Apple Centre North East, Ponteland Road, Ponteland, Newcastle-on-Tyne
MEETS - First Wednesday of every month

THE NORTH WEST APPLE COMPUTER CLUB

CONTACT - Ken Dawson   Tel : ▓▓▓ ▓▓▓ ▓▓▓▓
VENUE - The Coachman's, on the A49, about 1 mile south of the junction with the M62
MEETS - Second Thursday of every month

THE NORTH WEST APPLE USERS GROUP

CONTACT - Max Parrot
         Tel : ▓▓▓ ▓▓▓ ▓▓▓▓, ▓▓▓ ▓▓▓▓ daytime
         Tel : ▓▓▓ ▓▓▓ ▓▓▓▓ evenings
VENUE -
MEETS - Ring Max

Scotland

EDINBURGH GROUP .... 0238 ▓▓▓▓▓

CONTACT - Ricky Pollock   Tel : ▓▓▓ ▓▓▓ ▓▓▓▓
VENUE -
MEETS - Meetings monthly, check with Ricky

Postal

APPLE II PROGRAMMERS CLUB

CONTACT - Philip Dixon   TEL : ▓▓▓▓ ▓▓▓▓▓▓
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.

Other Groups

ORPINGTON COMPUTER CLUB

CONTACT - Terry Wheeler   Tel : ▓▓▓▓ ▓▓▓▓▓
VENUE - G.E.A. Hall, Woodhurst Avenue, Petworth
MEETS - Contact Terry

DONCASTER SOUTH YORKSHIRE

CONTACT - Colin Withington   Tel : ▓▓▓▓ ▓▓▓▓▓
VENUE -
MEETS - Contact Colin

LEEDS

CONTACT - Bob Miller   Tel : ▓▓▓▓ ▓▓▓▓▓ ▓▓▓ ▓▓▓
         - T Veluppillai   Tel : ▓▓▓▓ ▓▓▓▓▓
VENUE -
MEETS - Contact Bob

LIVERPOOL UNIVERSITY MAC GROUP

CONTACT - Alan Boyle   Tel : ▓▓▓ ▓▓▓ ▓▓▓▓
VENUE - Liverpool University, Surface Science Res. Cent.
MEETS - Tuesday lunch times

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 ▓▓▓▓ ▓▓ ▓▓▓.

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 Ads

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Cirtech PlusDisk populated to 832k	£225
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Half height 140k 5.25" drive for Apple II's	£35
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IIgs PinPoint Starter Kit	£15
PaintWorks Clip Art Gallery	£6

Offers Welcomed

'Phone Paul (evenings) .... ▓▓▓▓ ▓▓▓▓▓▓

FOR SALE

ALL PROGRAMS FOR APPLE IIGS UNLESS MARKED IIE, C:

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3. SILENT SERVICE GS (EXCELLENT CONDITION) £15
4. HACKER II FOR ORIGINAL IIGS, FIRST ROM ONLY ... £10
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12. COPY II PLUS ONLY 5.25" DISK, NO MANUAL ...... £5 (ALSO HAVE 3.5" DISK £10 FOR IIGS)
13. WINTER GAMES GS (NO BOX OR MANUAL) £10
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18. THE ALPINE ENCOUNTER FOR II+, IIE, IIC, IIGS £5
19. APPLE II DISK DRIVE GOOD COND. NEED CARD £40
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21. KARATEKA JUST DISK FOR IIE, IIC, IIGS £5

WILL CONSIDER A NEAR OFFER FOR ALL ITEMS.
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SOLD DUE TO CONVERTING TO A MACINTOSH II AND
HAVE HARDLY BEEN USED.
THEY ARE ALL IN EXCELLNET CONDITION.

'PHONE ANDREW .... ▓▓▓▓ ▓▓▓▓▓▓

FOR SALE

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PHONE JONATHAN .... ▓▓▓▓ ▓▓▓▓▓▓

FOR SALE

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2. Apple II+ 64k (with 16k Language Card) System, single Disk II Drive with controller, BMC green monitor, printer card, Apple Comms. card and Prism modem with software/manual for Micronet, games paddles, Apple II reference manual, DOS manual (all well cared for) £140

HARDWARE:

3. Eicon 8" Disk Drives & controller, 8" DOS 3.3 Utility £30
4. Sanyo green 12" monitor £30
5. 2 x Controller Cards v4.8 for Symbiotic Hard Disk .. each £5
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7. Mountain Comp. CPS Multifunction Clock Card no man.£10
8. Apple II RGB Colour Card no manual £10
9. Apple II+ Sup'r Terminal Video Card without manual £5
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11. Omnis 2 Database (unused, as new) £60
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13. High Technology Information Master Data Base £10
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15. Apple Pascal ver. 1.2 ...... £20
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MANUALS:

17. Microsoft Multiplan manual for Apple II, IIe £10
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19. Aristocard High Speed Serial Interface Manual £2
20. Applesoft II Basic Programming Ref. Manual £5
21. Applesoft Tutorial £5
22. 3 x Apple 80 column text card Manuals ...... each £2

All items plus postage.

'Phone Andrew (evenings Mon-Fri) .... ▓▓▓▓ ▓▓▓▓▓▓

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