Apple Slices

JANUARY 1991

A bi-monthly Newsletter from Apple2000

Issue 21

WIN A MAC

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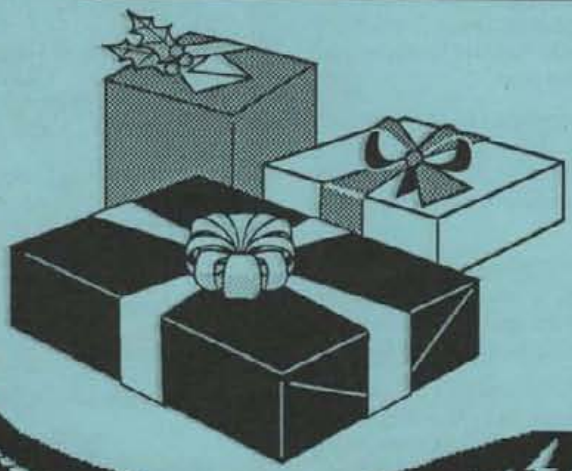

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Many thanks to all those who work behind the scenes and who receive no personal credit. These people are the stalwarts of Apple2000.

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

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Contributions and articles for the Apple2000 magazine or Apple Slices are always welcome. We can handle any disk size or format.
Please send to PO Box 3, Liverpool, L21 8PY.

There are a number of ways to contact Apple2000

If you wish to order goods or services from Apple2000, or if you just wish to leave us a message, please call Irene on [illegible] (Ansafone during the day). Alternatively, you can send us a Fax. on [illegible]; or write to us at PO Box 3, Liverpool, L21 8PY.

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 will try and help you.

We are very interested in the activities of local user groups. If you have any information which you would like publicised, 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. We'd be especially interested to receive any suggestions about what you would like to see in **your** magazines and newsletters.

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1990 Revisited

The Christmas pudding has been digested, the brandy bottle put away, and the annual binge just a memory now. It is time for us to reflect on what 1990 has brought for those of us in the Apple community.

The year started off quietly with the launch of the Macintosh IIfx and new colour display cards for the Mac II's. Gathering momentum we saw Apple introduce a new and cheaper Personal LaserWriter, and in time for the MacUser show the controversial launch of the Macintosh Classic, LC and IIsi. I predicted at the time that these three would change the face of Apple computing in the UK.

As I write, the LC has now been released a month early, albeit without its 12 inch colour screen, and the Classic having sold more units than was expected was on a 6-8 week waiting list. The dealers are in confusion. Many do not want to handle the Classic with its low profit margin, others have sold hundreds of the things. It is estimated that one a minute is now being sold world-wide.

On the software front, we have seen system software revisions on both the Macintosh and the IIgs, and HyperCard 2.0 arriving at last. System 7.0 is still a dream however ...

Current versions of operating systems are 6.0.7 for the Mac, 5.0.3 for the IIgs and 3.2 for the Apple II.

The Mac LC with its //e emulator is seen as the Apple II killer, but in Apple's own cryptic way they continue to support the Apple II with the development of HyperCard for the IIgs. Perhaps they or someone else will develop a IIgs emulator for the LC and that will be the end of the II as far as Apple are concerned.

As usual, Apple promise us new things for 1991 all I can say is watch this space ...

Seven Hills Release

❑ Three new products have just been released from Seven Hills Software:

SuperConvert

SuperConvert will allow you to convert graphics from Apple II's, Mac, IBM, Atari ST, Amiga and Commodore 64/128 to super hi-res. SuperConvert will also allow you to generate "font sample" pages, "font key" charts, print banners, AND make any image appear as your "desktop" background.

In addition, SuperConvert can produce colour slides from any screen display.

This is perfect for anyone who wants colour slides from a IIgs screen. (However you will have to send the disk to a commercial slidemaking service. The SuperConvert manual will list such services.)

A IIgs, 1 meg of ram, and at least one 3.5 drive are required.

People who registered SHRConvert (SuperConvert's shareware predecessor) with Jason Harper prior to Oct 31, 1990 will receive from Seven Hills information on how to update from SHRConvert to SuperConvert. And owners of The Graphics Exchange will be able to send Seven Hills a copy or original of the front cover of the manual and purchase SuperConvert at a special price.

Independence

Independence is a printer driver for the Hewlett-Packard Deskjet, Deskjet Plus, Deskjet 500 and LaserJet IIP. (Seven Hills is considering adding more drivers in the future.) It includes the following features:

Print at 75, 150, and 300 dots-per-inch resolution.
"Tall" or "Sideways" printing
Print up to 99 copies
Multiple copy collation
Odd only/Even only page printing for easy double-sided printing
"Save ink" option on the Deskjet
"Manual paper feed" option
Print specific pages, in reverse order if desired
Uses all standard fonts (filetype $C8)
Large fonts (used for 150 and 300 dpi printing) are included to make printouts look their best.

The drivers are compatible with GraphicWriter III, AppleWorks GS and most other IIgs software that uses GSOS. It requires one of the printers mentioned above. (The LaserJet IIP requires an addition 1 MB card to print at 300 dots-per-inch.) A hard disk, to store the large fonts required to produce the 300 dpi output, is recommended, but is not required.

Express

Express is a print spooler for the IIgs. Express will let you use your computer for other tasks while your ImageWriter printer is printing.

Express can spool multiple files, pause/cancel printing, or resume printing at a later time. It works with GraphicWriter III, AppleWorks GS, paint programs and most other IIgs-specific software.

With Express you can also transmit via modem formatted documents to other ImageWriter owners, even if the other person does not have Express.

Express is a New Desk Accessory. It requires a hard disk, an ImageWriter printer that is connected to the IIgs directly via the serial port, and GSOS 5.0.3.

❑ Contact Bidmuthin, ClockTower or MGA for prices.

Iigs System 5.0.3

A new release of the IIGS Operating System was made recently. It comprises two disks and fixes many bugs that were apparent in 5.0.2.

Disk IIGS035

```
/SYSTEM.DISK/
=PRODOS              SYS        4  14-JUN-89
=SYSTEM              DIR        2  15-OCT-90
   =START.GS.OS      $F9       26  20-AUG-90
   =GS.OS            $F9       91  20-AUG-90
   =ERROR.MSG        $BC       11  20-AUG-90
   =GS.OS.DEV        $BC        7  20-AUG-90
   =FSTS             DIR        1  15-OCT-90
      =PRO.FST          $BD       47  20-AUG-90
      =CHAR.FST         $BD        5  20-AUG-90
   =EXPRESSLOAD      $F9       25  20-AUG-90
   =DRIVERS          DIR        1  15-OCT-90
      =APPLEDISK3.5     $BB       12  14-JUN-89
      =APPLEDISK5.25    $BB       14  14-JUN-89
      =CONSOLE.DRIVER   $BB       16  20-AUG-90
      =IMAGEWRITER      $BB       50  20-AUG-90
      =MODEM            $BB        6  20-AUG-90
      =PRINTER          $BB        6  20-AUG-90
      =PRINTER.SETUP    BIN        1   1-JUN-89
   =SYSTEM.SETUP     DIR        1  15-OCT-90
      =TOOL.SETUP       $B6        1  20-AUG-90
      =TS2              $BC       82  20-AUG-90
      =TS3              $BC       30  20-AUG-90
      =RESOURCE.MGR     $B6       19  20-AUG-90
      =SYS.RESOURCES    $F9       20  14-JUN-89
      =CDEV.INIT        $B7        6  14-JUN-89
   =DESK.ACCS        DIR        1  15-OCT-90
      =CTLPANEL.NDA     $B8       43  14-JUN-89
   =START            $B3      208  17-JUN-89
   =TOOLS            DIR        2  15-OCT-90
      =TOOL014          $BA       49  20-AUG-90
      =TOOL015          $BA       35  20-AUG-90
      =TOOL016          $BA       29  20-AUG-90
      =TOOL018          $BA       43  20-AUG-90
      =TOOL019          $BA       15  14-JUN-89
      =TOOL020          $BA       20  20-AUG-90
      =TOOL021          $BA       26  20-AUG-90
      =TOOL022          $BA        8  14-JUN-89
      =TOOL027          $BA       27  20-AUG-90
      =TOOL028          $BA       13  14-JUN-89
      =TOOL023          $BA       33  20-AUG-90
      =TOOL025          $BA       14  14-JUN-89
      =TOOL026          $BA       10  14-JUN-89
      =TOOL034          $BA       77  20-AUG-90
   =CDEVS            DIR        2  15-OCT-90
      =GENERAL          $C7        8  14-JUN-89
      =KEYBOARD         $C7       10  14-JUN-89
      =MODEM            $C7       12  14-JUN-89
      =MONITOR          $C7       11  14-JUN-89
      =MOUSE            $C7        8  14-JUN-89
      =PRINTER          $C7       12  14-JUN-89
      =RAM              $C7       16  14-JUN-89
      =SLOTS            $C7       13  31-JUL-89
      =SOUND            $C7       10  14-JUN-89
      =TIME             $C7       17  14-JUN-89
      =DIRECTCONNECT    $C7       11  14-JUN-89
      =ALPHABET         $C7       10  14-JUN-89
      *CDEV.DATA        $00       25  20-AUG-90
   =FONTS            DIR        1  15-OCT-90
      =COURIER.10       $C8        6  27-NOV-86
      =COURIER.12       $C8        7  27-NOV-86
      =GENEVA.10        $C8        6  27-NOV-86
      =GENEVA.12        $C8        7  27-NOV-86
      =HELVETICA.10     $C8        6  27-NOV-86
      =HELVETICA.12     $C8        7  27-NOV-86
      =SHASTON.16       $C8       12  22-APR-87
      =TIMES.10         $C8        6  27-NOV-86
      =TIMES.12         $C8        7  27-NOV-86
      =VENICE.14        $C8        9  27-NOV-86
      =FASTFONT         BIN       57  25-APR-89
      =FONT.LISTS       BIN        3  17-FEB-88
   =P8               SYS       34  20-AUG-90
=ICONS               DIR        1  15-OCT-90
   =FINDER.ICONS     $CA       22   6-JUN-89
   =FINDER.ICONS.X   $CA       12   6-JUN-89
   =FTYPE.AUX        $42       11  20-AUG-90
   =FTYPE.MAIN       $42        5  20-AUG-90
=APPLETALK           DIR        1  15-OCT-90
=BASIC.LAUNCHER      SYS        3  14-JUN-89
=BASIC.SYSTEM        SYS       21  20-AUG-90
=TUTORIAL            DIR        1  15-OCT-90
   =BUDGETS          DIR        1  15-OCT-90
      =HOME             DIR        1  15-OCT-90
         =CY.1990          $00        1  17-JUN-89
         =CY.1991          $00        1  17-JUN-89
      =OFFICE           DIR        1  15-OCT-90
         =FY.1990          $00        1  17-JUN-89
         =FY.1991          $00        1  17-JUN-89
   =GRAPHICS         DIR        1  15-OCT-90
      =AD               $00        1  17-JUN-89
      =FLIER            $00        1  17-JUN-89
      =LETTERHEAD       $00        1  17-JUN-89
      =MASTHEAD         $00        1  17-JUN-89
   =LETTERS          DIR        1  15-OCT-90
      =MR.MERRITT       $00        1  17-JUN-89
      =MS.BACHTOLD      $00        1  17-JUN-89
      =TO.FAMILY        DIR        1  15-OCT-90
         =DAD              $00        1  17-JUN-89
         =MOM              $00        1  17-JUN-89
      =TO.FRIENDS       DIR        1  15-OCT-90
         =DARRYL           $00        1  17-JUN-89
         =MOLLY            $00        1  17-JUN-89
```

Disk IIGS036

```
/SYSTEM.TOOLS/
 =APPLETALK        DIR        1  15-OCT-90
    =NAMER            DIR        1  15-OCT-90
       =MTXABS.0         BIN       31  28-JUL-87
       =NAMER.0          BIN       61  14-JUN-88
       =NAMER.II         SYS        3  15-APR-88
    =BOOT.DRIVER      $BB        5  14-JUN-89
    =DISPLAY.0        BIN       51  14-JUN-89
    =QUICKLOGOFF      $B7        1  14-JUN-89
    =START            $B3       50  31-JUL-89
 =SYSTEM           DIR        1  25-OCT-90
    =CDEVS            DIR        1  15-OCT-90
       =APPLESHARE       $C7      104  14-JUN-89
       =ATIWRITER        $C7       36  20-AUG-90
       =ATLQIWRITER      $C7       37  20-AUG-90
       =ATLWRITER        $C7       45  20-AUG-90
       =DIRECTCONNECT    $C7       11  14-JUN-89
    =DESK.ACCS        DIR        1  15-OCT-90
       =CDREMOTE         $B8       35  14-JUN-89
       =VIDEOMIX.NDA     $B8       49  20-AUG-90
    =DRIVERS          DIR        3  25-OCT-90
       =APPLE.MIDI       $BB        4  14-JUN-89
       =APPLEDISK5.25    $BB       14  14-JUN-89
       =APPLETALK        $BB        8  14-JUN-89
       =AT.IW.PSETUP     BIN        1  26-JUL-88
       =AT.IWLQ.PSETUP   BIN        1  26-JUL-88
       =ATALK            $BB       16  20-AUG-90
```

```
        =ATP1.ATROM          $BB      22  14-JUN-89
        =ATP2.ATRAM          $BB      87  20-AUG-90
        =CARD6850.MIDI       $BB       4  14-JUN-89
        =EPSON               $BB      47  14-JUN-89
        =EPSON.PSETUP        BIN       1  26-JUL-88
        =IMAGEWRITER         $BB      50  20-AUG-90
        =IMAGEWRITER.LQ      $BB      53  20-AUG-90
        =IW.PSETUP           BIN       1   1-JUN-89
        =IWEM                TXT      59  14-JUN-89
        =IWLQ.PSETUP         BIN       1   1-JUN-89
        =LASERWRITER         $BB      81  26-OCT-90
        =LW.PSETUP           BIN       1  26-JUL-88
        =MODEM               $BB       6  20-AUG-90
        =PARALLEL.CARD       $BB       5  14-JUN-89
        =PRINTER             $BB       6  20-AUG-90
        =SCC.MANAGER         $BB       5  14-JUN-89
        =SCSI.MANAGER        $BB      21  20-AUG-90
        =SCSICD.DRIVER       $BB      25  20-AUG-90
        =SCSIHD.DRIVER       $BB      31  20-AUG-90
        =UNIDISK3.5          $BB       6  18-SEP-90
    =FONTS               DIR          1  15-OCT-90
        =SHASTON.16          $C8      12  22-APR-87
        =TIMES.12            $C8       7  27-NOV-86
    =FSTS                DIR          1  15-OCT-90
        =APPLESHARE.FST      $BD      35  20-AUG-90
        =HS.FST              $BD      21  20-AUG-90
    =SYSTEM.SETUP        DIR          1  15-OCT-90
        =APPLEIIVOC.INIT     $B7       1  14-JUN-89
        =ATINIT              $E2       1  14-JUN-89
        =ATRESPONDER         $B6      10  31-JUL-89
    =TOOLS               DIR          1  15-OCT-90
        =TOOL029             $BA      21  20-AUG-90
        =TOOL032             $BA      27  14-JUN-89
        =TOOL033             $BA      10  14-JUN-89
=ICONS               DIR          1  15-OCT-90
=ADV.DISK.UTIL       $B3         83  14-JUN-89
=INSTALLER           $B3         75  20-AUG-90
=SCRIPTS             DIR          2  15-OCT-90
    =ACE                 TXT          1  17-AUG-90
    =ADV.DISK.UTIL       TXT          1  15-MAY-89
    =APPLE.MIDI          TXT          1  15-MAY-89
    =APPLEDISK5.25       TXT          1  15-MAY-89
    =APPLESHARE          TXT          4  16-MAY-89
    =ARISTOTLE.PATCH     TXT          1  15-MAY-89
    =ATIMAGEWRITER       TXT          4  16-MAY-89
    =ATIMAGEWRITERLQ     TXT          4  16-MAY-89
    =CARD6850.MIDI       TXT          1  16-MAY-89
    =CDROM               TXT          3  15-MAY-89
    =DCIMAGEWRITER       TXT          3  16-MAY-89
    =DCIMAGEWRITERLQ     TXT          3  15-MAY-89
    =EPSON               TXT          3  15-MAY-89
    =FONTS               TXT          3  17-AUG-90
    =INST.SYS.MIN        TXT         20  17-AUG-90
    =INST.SYSF.NOFIN     TXT         16  17-AUG-90
    =INSTAL.SYS.FILE     TXT         17  17-AUG-90
    =LASERWRITER         TXT          5  15-MAY-89
    =LOCAL.NET.BOOT      TXT         17  17-AUG-90
    =NAMER               TXT          1  16-MAY-89
    =QUICK.LOGOFF        TXT          1  16-MAY-89
    =SCSI.HARD.DISK      TXT          6  17-AUG-90
    =SERVER.SYS.FILE     TXT         20  17-AUG-90
    =UNIDISK3.5          TXT          1  16-MAY-89
    =VIDEOMIX            TXT          3  16-MAY-89
```

Order the disks from the library as usual. Disks are £4 each or £8 for the pair. The price is inclusive of VAT and P&P.

The disks are also available for downloading on TABBS, but be warned, it takes about an hour and a half at 2400 baud! Much easier to order the pair of disks and be sure of getting good copies!

8/16-Central is launched

8/16 Magazine Becomes 8/16-Central

A2-Central, well known for its support of the Apple II power-user, has added a fourth publication to its offerings. To ensure that Apple II and IIgs programmers get the support they need, A2-Central has purchased 8/16 magazine from Ariel Publishing Co. of Pateros, Wash.

8/16, which will now be called 8/16-Central, is the only monthly publication directed exclusively towards Apple II programmers.

8/16-Central, which began with a December 1990 issue, is a 3.5-disk-based publication. Ariel's 8/16 was available in both paper and disk versions, but the paper version has been discontinued. The subscription price of 8/16-Central is the same as the price of a disk subscription to Ariel's 8/16.

8/16-Central includes regular columns, articles, and source code for 8- and 16-bit programs; want-ads; tutorials; and a question-and-answer section. Each disk will also include extra utilities and programs of interest to developers.

Tom Weishaar, president of A2-Central, said that he wants 8/16-Central to benefit the Apple II programming community. "8/16-Central will round-out our support of the Apple II developer," Weishaar said. "It fits in nicely with our other offerings for developers, including our summer conference, the Apple II Programmers and Developers RoundTable on GEnie, and the programming books and tools we offer through our catalog."

The new editor of 8/16-Central, Jay Jennings, has ties to both Ariel Publishing and A2-Central. Jennings has been a contributing editor to 8/16 since its inception and has been employed by A2-Central since mid-1989. He says 8/16-Central will remain true to the spirit of the old 8/16, "The physical format of the magazine will change a bit since we're going to be totally disk-based, but the content - hard-core programming info - will remain the same."

Subscriptions to 8/16-Central are available for $69.95 per year (12 disk issues). 8/16-Central will be available on 3.5 disks only. Contact A2-Central at P.O. Box 11250, Overland Park, KS, 66207. Or call (913) 469-6502.

In addition to 8/16-Central, A2-Central publishes the 3.5 disk based publications Stack-Central, which is for HyperStudio users, and TimeOut-Central, which is for users of AppleWorks and Beagle Bros' TimeOut series. However, the monthly 8-page newsletter, A2-Central, continues to be the company's flagship product. The company also manages the Apple II areas on GEnie, General Electric's online information service, and sells a large variety of Apple II-related books, software, and hardware by direct mail.

Contact:
Tom Weishaar or Jay Jennings
A2-Central • 913-469-6502
or write:
A2-Central
PO Box 11250
Overland Park,
Kansas 66207 USA

Apple2000 Snippets

❑ Bidmuthin have outgrown their old premises at Kenton Road in Harrow and have moved to a new location in Pinner nearby. Contact them on 081-868-4400 for details of how to find them!

They also tell us that the Apple Hi-Speed DMA SCSI card for the Apple II is now available ex stock. This is priced at the same speed as the original card. A warning for some of you with older memory expansion cards on the IIgs. Some of these cards will not support DMA access so the full speed potential of the card will not be realised. Check with Bidmuthin if you are having problems. They will be able to advise you on upgrade paths.

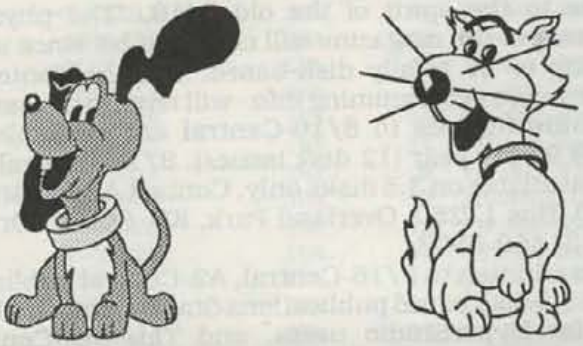
❑ Ken Dawson is now able to supply ProSel as well as TimeOut upgrades. Currently we are at ProSel 8.57. Contact Ken on 051-424-8974 for further details. He will require your original ProSel master disk to make the upgrade.

❑ Alan Finn at ClockTower now has the new High Density 3.5 AE drives available for the IIgs and //e. If you have one of the earlier low density versions, contact Alan on 081-341-9023 for details of upgrades and other special offers from ClockTower.

❑ Members possessing a modem and a Prestel account can now call Phonebase as well as Electronic Yellow Pages on the Prestel system.

Phonebase gives access through a Gateway to the same database used by Directory Enquiry operators. Normal Prestel time charges are in force with Phonebase while EYP access is free.

Call *PHONEBASE# or *192# for Phonebase and *EYP# or *3813# for Electronic Yellow Pages.



BackFAX Upgrade

U.S. Press Release: Solutions Incorporated has just issued an updated version of BackFAX for the AppleFax modem. Since Apple has discontinued the AppleFax modem, software is the only upgrade path.

This update is being given free to anyone who registered a BackFAX since the announcement of the update on May 26th. It is also being offered, by direct mail, to the rest of the installed base for $29.00.

For further details, please contact Mary Evslin at Solutions Incorporated, 30 Commerce Street, P O Box 783, Wiliston, Vermont 05495, USA.

Abaton Transcribe 300

Press Release: Abaton's Transcribe 300 Offers Complete OCR Solution.

The Transcribe 300, an OCR, flatbed scanner will be available in early February. Specifically designed for OCR applications, the Transcribe 300 also supports line art, half tone and black and white scanning in resolutions from 72 dpi to 300 dpi.

The Transcribe 300 will be bundled with CAERE Corporation's OmniType, as powerful as OmniPage and specially designed to support the Transcribe 300 on all Macintosh computers with 4Mb of memory. Abaton's black and white desk accessory is also included in Macintosh packages. This DA allows the Transcribe 300 to scan from within any Macintosh application, scale documents as they are scanned, and save scanned images in TIFF, PICT, EPS and MacPaint file formats.

The Transcribe 300's flatbed design, with an optional automatic document feeder, conveniently scans oversized and multiple documents. The Transcribe 300 offers 255 brightness and 255 contrast settings for adjusting scanned images to improve quality. 255 auto threshold levels are also provided for better line art definition.

The retail price is expected to be £825 + VAT. For further details, please contact the Acme Computer-Distribution Company (0246 221394).

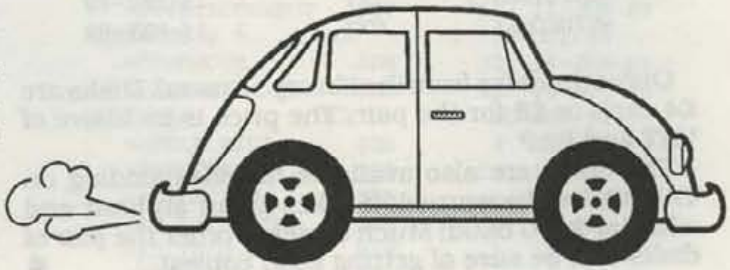
Abaton's Colour Scanner

Press Release: The 24-bit Scan 300/Colour is an expansion of Abaton's popular 300 series of scanners which scans colour, greyscale, halftone and line art images in resolutions selectable from 72 dpi to 300 dpi. It includes Abaton's Scan DA which allows scanning from any application. The Scan DA has powerful features for scaling and zooming, controls for brightness, contrast and greymap for easy manipulation of scanned images.

The Scan 300/Colour is currently marketed for the Macintosh environment, with PC and PS/2 platform-specific solutions soon to follow. The Scan 300/Colour comes bundled with Adobe PhotoShop, Adobe Systems Inc.'s popular colour imaging package.

The Scan 300/Colour will be available in early February.

The retail price is expected to be £1,895 + VAT (including PhotoShop). For further details, please contact the Acme Computer-Distribution Company (0246 221394).



Claris announces FileMaker Pro

Press Release from Claris (UK)

Claris Corporation have announced FileMaker Pro, the powerful next generation of the application which has led the Macintosh database market for five years. FileMaker Pro offers more than 100 new features, adds greater solutions for flexible, graphics-rich formatting and report generation, and increases performance by more than 30 percent over FileMaker II, on average.

"I have never seen such dealer and customer interest in new software," said Steve Johnson, Claris UK Managing Director. "The advance orders for the package, and the upgrades, exceed all expectations. Customer response to beta versions has been exceptional. It also seems that UK dealers are behind the product in a big way, and a huge amount of dealer training has already taken place. I think that at long last the Macintosh has the information tool that it deserves."

Positive Customer Acceptance

Response from early users of FileMaker Pro offers an impressive end-user review of the product. "With FileMaker Pro, I can create applications of incredible power and sophistication that are unbelievably simple to use," said FileMaker developer and consultant Michael Rochard. "FileMaker Pro is the ultimate administrator, the ultimate manager and the ultimate employee. Does that make it the ultimate database program? Unequivocally, yes."

"True to the spirit of the Macintosh, FileMaker Pro puts the power of information handling firmly in the hands of the everyday user," said Dick Byford, Technical Director, Mac.T (The Macintosh Training Company) in Milton Keynes. "Applications design - using most programmable databases - is a vocation. With FileMaker Pro, it's something you do in your coffee break."

"I am using the new FileMaker Pro to develop a new research tool for academic researchers," said Stephen Pollak, Ph.D., researcher at the University of Sussex. "It's just great. I've been a FileMaker user for nearly four years now, but this upgrade is more significant than any thus far. It's much faster and provides me with a whole set of new development tools. Yet, amazingly, it is even easier to use than before... and FileMaker has always been the easiest of database applications to use. Most important, for my work, the new FileMaker Pro enables me to create flexible databases which are truly user-friendly: with pull down menus, dynamic buttons, and an intuitive interface. Claris has really done a great job with FileMaker Pro. A great application has just become a whole lot better."

"As a dedicated and enthusiastic user of FileMaker, I believe that with the introduction of FileMaker Pro, Claris have produced a database which does deserve the label of 'Outstanding'," said Alan Stirling, Managing Director, Stirling Microsystems Limited, in London. "I have not seen another database which is as easy to set-up, as easy to use and as powerful and flexible as FileMaker Pro. Don't be deceived - FileMaker Pro is one of the most powerful and flexible databases for the Macintosh. It's just hard to appreciate it's full potential until you start to use it."

"Claris have achieved the fine balance between ease of use and power with FileMaker Pro," said Ian Carter, head of information technology at Cheltenham College. "In the curriculum, children have been designing their own FileMaker Pro databases; from foreign language vocabularies to animal feeding relationships in biology. At the other end of the scale we manage all the student records on a FileMaker Pro multi-user database over our AppleShare network. The secretaries have enjoyed utilising all the new features in FileMaker Pro - designing new user interfaces with graphics, buttons and scripts. This would have been an alien concept a few years ago!"

New and Improved Features

FileMaker Pro provides unrivalled tools for quickly formatting the user's data into professional-quality layouts and reports. Using new features from Claris MacDraw™ II and Claris CAD, database reports and forms can be designed with great precision. On-screen and printed reports can now be enhanced with the use of colour. For example, red entries can highlight negative values or overdue accounts.

The most innovative new features within FileMaker Pro are Buttons and enhancements to Scripts, which allow literally any of the program's commands or series of commands to be automated. Experienced FileMaker Pro users will use Scripts to automate repetitive tasks, such as multiple sorts and finds; and they can create Scripts and Buttons which other users can select to navigate through the database.

With its power for multiuser and network applications, FileMaker Pro vividly illustrates the advantage of the Macintosh in workgroup environments. Workgroups of all sizes can choose to share FileMaker Pro databases. Every copy of FileMaker Pro is "network ready," enabling any connected and licensed Macintosh to share data without the need for a file server.

FileMaker Pro is the third Claris application (after MacWrite™ II 1.1 and Claris CAD 2.0) to incorporate Claris XTND, an open file translation architecture that allows users to directly import or export text, graphics, database and other application files across

multiple platforms. This means greater flexibility in reading and writing other file formats. Currently, FileMaker Pro can import graphics based on TIFF, PICT, Encapsulated PostScript (EPSF), and bit-mapped formats and, with Claris XTND, other file-format translators can be added. Exchanging data between FileMaker Pro and other products, such as spreadsheets and other database managers, is simple. FileMaker Pro reads and writes tab-delineated, WKS, SYLK, .DBF, DIF, comma-separated, BASIC and Merge file formats.

In addition to Claris XTND, FileMaker Pro includes many features that work the same across the synergistic Claris family of applications. These include a HyperCard-based Help system which can be customised and shared by other Claris products; customised Help is especially important to corporate customers who want to provide their users with specially tailored Help information. The spelling checker and dictionaries are also shared by FileMaker Pro with other Claris applications.

Pricing and Availability

The suggested retail price of FileMaker Pro in the UK is £225, the same as FileMaker II. Registered owners of FileMaker II and FileMaker 4 can upgrade to FileMaker Pro for £75. FileMaker Pro is available from authorised Claris dealers. Exclusive distribution is through Frontline Distribution, Intec 1, Wade Road, Basingstoke, Hants RG24 ONE. Tel: 0256.463344. For upgrade order forms and information call 0800.899005. Users in the Republic of Ireland should call Dublin (01) 767.814. Claris, one of the top two vendors of Macintosh software, is a subsidiary of Apple Computer, Inc. and develops, markets and supports application software for Macintosh and Apple II computers. 19 October, 1990 For further information, please contact: Steve Johnson, Claris UK Managing Director or Dan Rampe, Claris UK Marketing Manager Claris International, Inc. 1 Roundwood Avenue Stockley Park Uxbridge Middlesex UB11 1BG Tel: 081.756.0101 Fax: 081.573.4477 ###

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FOR SALE

All programs for Apple IIGS unless marked for IIe,c.

HARDWARE
Complete computer syatem:-
Apple IIe (enhanced) 128K
1 x Apple 5.25" (Unidisk)
Apple Mouse card and mouse, Mousepaint,manual
Apple monitor-mono (green)
80-column card with 64K(Cirtech)
All leads for the computer & lead for ImagerWriter II
Includes the following software:-
An introduction to the IIe; The inside story; Apple II utilities disk+manual; The Alpine encounter(Game); Karateka [just disk] (Game); Technocop [just disk](Game); Mouse paint disk + manual; CopyII+ ver.8.4 [just disk] 5.25"; Apple writer 1.1 [just disk]; Dos system master; Dos basic disk.(for above)
includes the following manuals:-
Apple IIe owners manual; Apple II mouse user's manual also for Mousepaint; A touch of Applesoft basic; Apple II unidisk(5.25") owners manual; Basic programming book
Excellent condition ..... **£450o.n.o.**

'Phone Andrew Kent ..... [illegible]

FOR SALE

SOFTWARE
BUSINESS:
1) Music Studio 1.0 GS (V.G.C) **£25**
2) Apple Pascal (DISKWARE) 1979,1980 Apple 4 disks and 2 manual **£40**
3) Copy II PLUS only 5.25" Disk Ver. 8.4 ..... **£6**
4) Prosel 16 [cost £59.95] New—Manual on disk **£25**
GAMES:
1) Laser force by Britanicca for GS V.G.C. **£20**
2) World tour Golf (GS) New V.G.C **£17**
3) King's Quest I and II Any Apple II with 128K or GS V.G.C. **£20each**
4) Leisure suit Larry Any Apple II 128K V.G.C. **£20**
5) Black Cauldron Any Apple II 128K V.G.C. .. **£15**

BOOKS
1) Basic Programming ref. man. V.G.C 1981 Ed. **£5**

WANTED

Apple IIgs contacts — just ring me.
1) Sierra Games for IIe or IIGS ANY
2) Wrath of denethor by Sierra
Will Swap games wanted for games or programs above

'Phone Andrew Kent ..... [illegible]

FreeHand Price Cut

Press Release: Aldus U.K. has announced the reduction in price of their market leading graphic design software product for the Apple Macintosh, Aldus FreeHand. The price will be reduced from £450 to £395 + VAT and will take effect immediately.

Moira Craig, Marketing Director of Aldus U.K. describing the reason for this move said, "FreeHand began its life as a product which appealed to graphic designers and technical illustrators as the ideal tool for creating complex and aesthetically pleasing design work. There are many examples of FreeHand creations in daily use from health-care and music industry packaging to typographically detailed promotional materials."

She went on to say, "However, during FreeHand's life-cycle we have seen the range of users broaden, and while it retains its position as the first-choice design and typography tool for professional graphic artists, its user base now also includes many 'non professional' designers who simply want an easy-to-use and flexible software tool to create every-day items."

Some examples of these were given including: forms design; simple maps, complete with travel directions; labels; flow charts; organisation charts; invitations; posters.

Moira continued, "Aldus wants to make FreeHand available to this much wider audience, but it was clear that being such a broad-based software product it required an equally broad-based-market price."

Moira went on to say in conclusion, "FreeHand has enjoyed tremendous success in the UK market far exceeding our expectations, with this success being based on its excellent features and abilities. FreeHand's enthusiastic promotion, by both dealers and users alike, is an indication of this success, and as a direct result we have been able to reduce the price at this time."

Introducing "Peronal Press"

U.S. Press Release: Silicon Beach Software has introduced 'Personal Press', the company's new easy-to-use, full-featured page layout program for the Macintosh. Developed for the casual user, Personal Press offers the power of desktop publishing with a minimum investment of time and money.

Personal Press pushes technology to the next step with interactive proxies. This technology provides constant, interactive graphic feedback to the user as an aid in the design and layout process. These graphic "proxies" let users know exactly what is going to happen to their document before it takes place.

Personal Press delivers ease-of-use with its unique AutoCreate feature. With AutoCreate, users can assemble text and graphics into one of the numerous pre-designed templates provided with the program or easily expand the power of AutoCreate by designing and adding their own templates.

In Addition to placing text created with many stand-alone word processors, Personal Press provide a full-featured word processor, with custom styles to allow users to create and edit text directly in their publication. The program also provides a spell checker and thesaurus, as well as the ability to do a search-and-replace on text, fonts, styles and sizes.

Advanced users will find the extended capabilities of Personal Press extremely helpful. Plug-in modules allow scanning directly from the program. Image controls allow for adjustment of scanned grey-scale images. Text and graphics can be rotated. The program also offers full colour graphic import and display to accommodate grey-scale TIFF and 24-bit colour PICT images for output to colour printers or for printing spot colour separations on black-and-white printers. In addition, advanced halftoning optimizes grey-scale image output to any black-and-white printer, even those without PostScript capability.

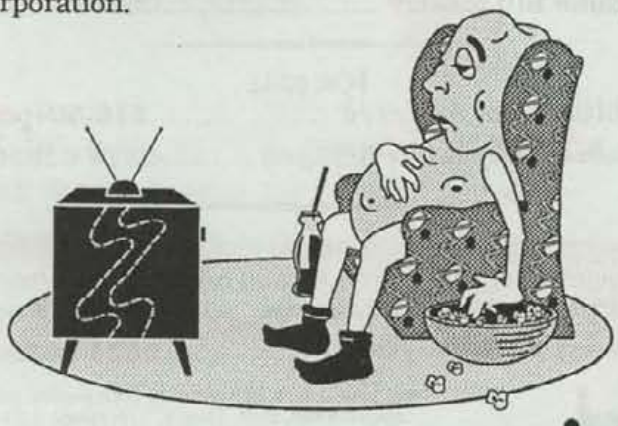
Other interface innovations include the 'Workbook', which works like a scrapbook but is separately attached to each document; 'Posted Notes', highlighted in yellow, for holding working notes, editing comments or reminders; 'Link Navigator', which sequentially highlights the links in a text chain; and the 'Equals Tool', which quickly makes objects the same size.

"We are offering a key combination — affordability and ease of use — that has been missing from the page layout market," explained Kaiulani Schuler, Director of Marketing. "With every product we've published, we have brought high-end power to a broader market by designing intuitive interfaces, automating tedious processes, and pricing our software affordably. For our customers, these things are very important."

The positioning has also stirred interest at Apple Computer. According to Bruce Mowery, Apple's Director of Small Business Markets, "Personal Press, combined with the recently introduced, more affordable line of Macintosh personal computers, provides the opportunity for a whole new class of small business customers to realize the benefits of desktop publishing at a price they can live with."

Personal Press requires a Macintosh Plus, SE, SE/30, Portable, II series, LC or Classic, with System 6.0 or later, 1MB RAM and two 800K floppy drives or a hard disk and one 800K floppy drive. A colour monitor is required for viewing colour. The product has a suggested retail price of US$299.

Silicon Beach Software is a subsidiary of Aldus Corporation.



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Please ensure that items offered for sale are new or are re-registered.

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1) APPLE //e with mono monitor, twin disc drives, 80 column extended card (128k), Super Serial card, Parallel printer card. Software. Excellent condition, very careful use ..... **£280 o.n.o.**
2) APPLEWORKS V3 including all manuals. All original disks **£90**

'Phone Brigid (Evenings) ..... [illegible]

FOR SALE

SYSTEM-1:
Apple //e, 13" monochrome monitor (green), 2 full height disk drives & controller card, 64K extended 80-column card, parallel printer card.
Offers over **£200**
SYSTEM-2:
Apple //e, 13" monochrome monitor (green), 2 full height disk drives & controller card, 64K extended 80-column card.
Offers over **£200**

'Phone Neil McFerran (evenings) .. [illegible]

FOR SALE

1. Enhanced Apple //e Apple (///) monitor, extended 80 column card, two Apple 5,25" disk drives Manuals, Original Software and cables **£225**
2. Apple //e Apple Monitor 2 Apple 5.25" disk drives complete systems 3 available **£185**
3. Apple Imagewriter 1 Printer **£95**
3. Parallel Card and cables for Apple Printer . **£25**
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5. Word Processor WordStar 3.3 with MailMerge and Manuals **£35**
6. Zip Accelerator Card for //e **£40**
7. Apple GS. Colour System 3.5" Disk Drive / Mouse/original software and manuals **£450**
8. Apple GS 1Mb. Memory Card **£90**
9. Apple SCSI Card VERSION-01 ..... **£50**
10. Apple ImageWriter 2 Printer manual and cables **£225**
11. Mac SE 2 internal disk drives 2.5Mb. manuals and Original Software **£895**
12. Apple 40SC Hard Disk Cables, Terminator, and Utilities **£375**

'Phone Bill Mealey ..... [illegible]

FOR SALE

VISICALC for Apple//e ..... **£16.50+post**

'Phone Tony (after 6:30pm)..... [illegible]

FOR SALE

ImageWriter LQ - prints A3 and A4 @216 dots/inch. Excellent condition, home use only ..... **£425 ono**

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FOR SALE

Ex demonstration hard drives and screens available.
Disks ..... **from £150**
Screens ..... **from £599**

'Phone Colette..... [illegible]

WANTED

"APPLIED APPLE GRAPHICS" by Pip Forer 1984.
I have the book but wish to buy, or borrow, the disc.

'Phone Mike (anytime) ..... [illegible]

FOR SALE

APPLE //E 64K COMPUTER SYSTEM
inc. APPLE D/Drives I/F PCB
EPSON Printer I/F PCB
CIRTECH 80 Col. PCB
CIRTECH Z80 PCB(for CP/M)
TWO APPLE 5 1/4" DISK DRIVES
TAXAN 12" DISPLAY MONITOR
ALL MAINS & I/F CABLES(INC.PRINTER)
plus the following manuals:-
APPLE OWNERS; 80 COL.TEXT CARD; APPLE DISK DRIVE; TAXAN 12" MONITOR; CIRTECH Z80; CIRTECH 80 COL.
PRICE ..... **£300 o.n.o.**

'Phone Bob ..... [illegible]

FOR SALE

1) Apple II+, with 16K language card, 80 column Videx compatable card, Parallel printer card, and Videx Lower case adaptor. Complete with manuals and Video cables including switch box, (all well cared for) ..... **£80 ono**
2) Apple Writer for II+ inc manual **£10**
3) Apple Pascal II.1 (2 manuals + 4 discs) **£25**
4) Plus Works II (for Appleworks 2 or below) ... **£15**
5) Cut Sheet Feeder for, Epson LQ500 or LX800 **£35**

'Phone Richard (after 4-30pm) ..... [illegible]

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Apple //e, Two Disk][drives + Controler, Extended 80-column Card, Apple Daisy Wheel printer, Super Serial Card, Inmac Accoustic Box and Connecting Cable for printer
All for ..... **£200 (+p&p)**

'Phone Stephen Day (evenings or weekends) ..... [illegible]

WANTED

Original software for Apple Graphics Tablet

'Phone Graham (any time)..... [illegible]

Apple Slices is a bi-monthly Newsletter published by Apple2000 as a service to its members.
Apple2000, P.O. Box 3, Liverpool, L21 8PY. Tel: [illegible]. Fax: [illegible]

Join our Birthday Celebrations!

Apple2000 recently celebrated its tenth birthday
(in case you hadn't noticed!)

We think that all our members deserve the opportunity to join in the celebrations, by giving you a chance to win a new computer

WIN A MACINTOSH CLASSIC

At the Annual General Meeting of Apple2000, to be held in April 1991, we shall make a draw of membership numbers. Entry to the draw is free, and open to all members (i.e. all who are current members AT THAT DATE)

A form will be included with your February issue of Apple2000 magazine.

If you wish to be included in the Draw, please return the form to the Post Office Box.

If you introduce a new member to the Group before the date of the A.G.M., ask them to quote your membership number — for each new member you introduce, we'll include another form for you, so you'll have extra chances to win!

ONE LUCKY MEMBER WILL WIN THE MACINTOSH CLASSIC — SO WHY SHOULDN'T IT BE YOU?

Remember, though, that you must be a current member at the time of the A.G.M. — so don't let your membership lapse!

Introduce new members to gain more chances of winning

February 1991

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
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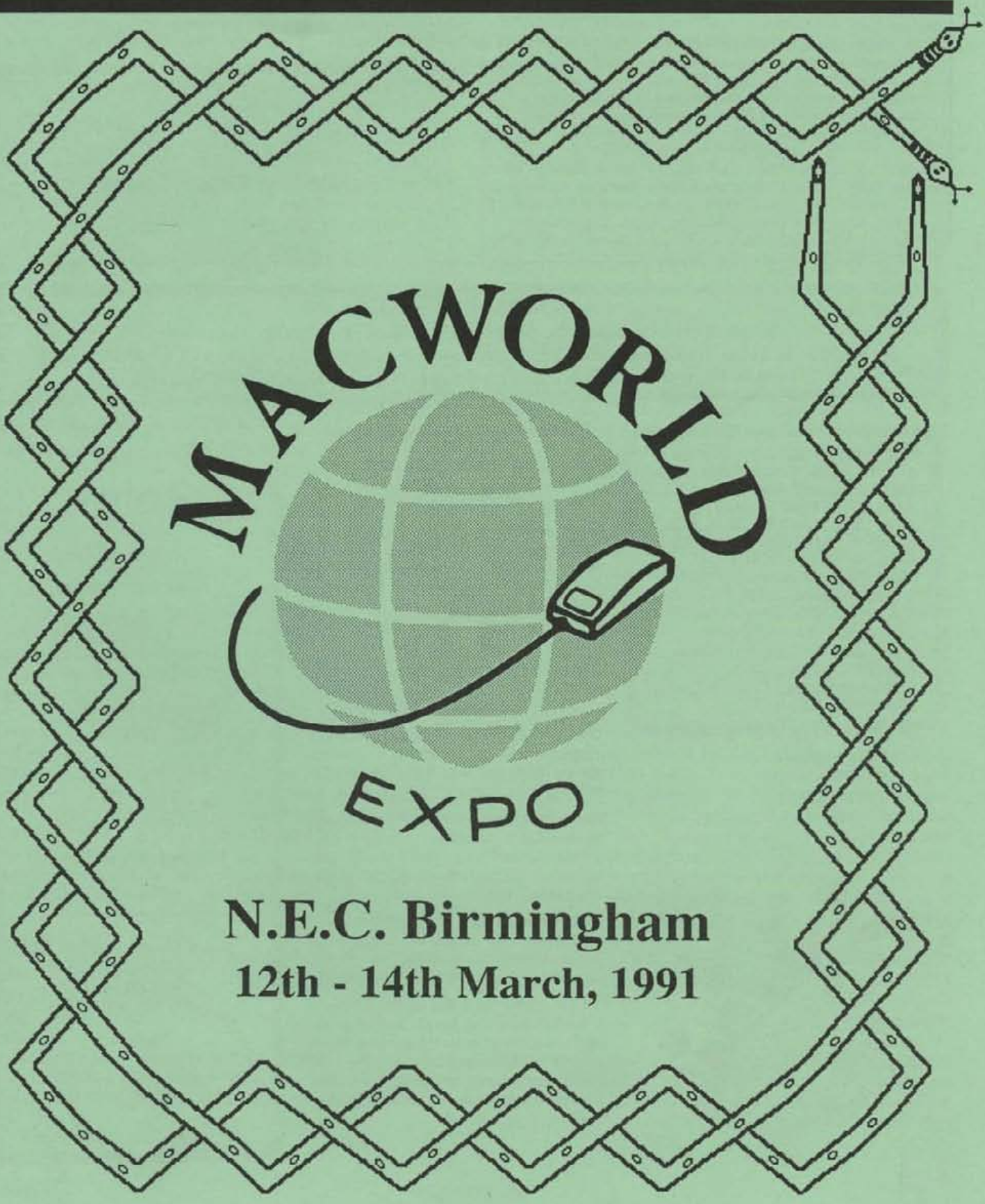
AppleSlices

March 1991

A bi-monthly Newsletter from Apple2000

Issue 22



N.E.C. Birmingham

12th - 14th March, 1991

Annual subscription rates are £30.00 for UK residents, £35.00 for E.E.C. residents and £40.00 for other overseas members.

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The Editorial team is:

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

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

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There are a number of ways to contact Apple2000

If you wish to order goods or services from Apple2000, or if you just wish to leave us a message, please call Irene on [illegible] (Ansafone during the day). Alternatively, you can send us a Fax. on [illegible]; or write to us at PO Box 3, Liverpool, L21 8PY.

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 will try to help you.

We are very interested in the activities of local user groups. If you have any information which you would like publicised, 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. We'd be especially interested to receive any suggestions about what you would like to see in **your** magazines and newsletters.

Contact Points

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Irene Flaxman
Voice [illegible]
Fax [illegible]

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Voice [illegible]

Apple II Hotline
Dave Ward
Voice [illegible]
Mon-Fri 1900-2100

Macintosh Hotline
John Arnold
Voice [illegible]
Mon-Fri 1900-2100

Beagle Buddy for the UK
UK ProSel Resource Associate.
Ken Dawson
Voice [illegible]

TABBS
Ewen Wannop - SYSOP
Modem [illegible]
AppleLink: BASUG.1

First TrueType® Application

Ventnor, Isle of Wight, England — February 6, 1991

The first software product to use new TrueType font products is today being shipped by Axon Technology, the British plotting and cutting specialist. Glyptic™ converts characters from any available TrueType font into a format suitable for plotting or cutting on Axon Technology's range of flatbed cartesian plotters and cutters.

Glyptic was developed for Axon by EHN & DIJ Oakley, a British software house which specialises in computer aided design and manufacturing software for the Apple Macintosh series of computers. Oakleys' other software sold exclusively by Axon includes: LOFT™, a unique two-dimensional design application intended for industries which fabricate objects from multiple panels; The Panellist™, a sophisticated panel editor for ShapeFit; ShapeFit™, an application which enables the assembly and packing of panels into queues, and their subsequent cutting on an Axon system. LOFT is now accepted as the state-of-the-art sail design software, whilst a combination of The Panellist, ShapeFit and an Axon cutter outperforms all competing products in every way, not least of which in terms of price.

Glyptic generates panels from TrueType fonts in a very simple fashion. The user chooses which font he wishes to employ, and types in a series of letters rather like you might in a tape labelling machine. A series of button clicks is all that is required to save the letter as a panel ready to plot or cut using ShapeFit. Prior to the release of System 7, fonts are kept in separate files, but Glyptic will offer the full selection of installed TrueType fonts under System 7.

The public debut of Glyptic will be at the forthcoming MacWorld Expo (NEC Birmingham, 12-14 March) on the FontWorks stand (E12). Visitors to the stand will be able to see Glyptic and other Oakleys software in action, and to have characters cut for them in vinyl and other materials using an Axon flatbed cutter. Also being launched at the show will be Triptych™, a remarkable autotracing application capable of converting scanned images of logos and artwork into a range of vector graphics formats.

Axon Technology is the specialist manufacturer of large format plotting and cutting systems for manufacturing industries. Their range of systems includes the A401, offering excellent accuracy and repeatability over beds of up to 3 x 1.5 metres, through to the A201, which can have flatbed sizes of 20 x 5 metres or even greater. Many different tools can be fitted, including tangentially controlled tungsten carbide blades, lasers, routers, ultrasonic cutters, gas plasma jet cutters, and waterjets. Thus, they can cut almost any material available in sheet form, from the most delicate of fabrics to sheet metal, thick carpet, wood, plastics and composites.

Contact:

Dr Howard Oakley, [redacted]

System 7.0 Development Tools

CUPERTINO, California—February 11, 1991—Apple Computer, Inc. announced four new development tools at the second annual MacApp Developers Association (MADA) conference last week in Phoenix, Arizona. The suite of new development tools will accelerate third-party software development efforts based on the company's forthcoming Macintosh System 7.0 system software release. The new products, MacApp 3.0, ToolServer, SourceBug and BalloonWriter are important to Macintosh computer program developers as they ready their applications to take advantage of the many new features and capabilities of System 7.0.

MacApp 3.0 MacApp 3.0 is the latest version of Apple's object-oriented framework for applications. It provides developers the objects they need to program standard elements of Macintosh applications, such as scroll bars, multiple windows, printing, cut and paste, undo and menus—and now adds support for System 7.0. MacApp 3.0 allows software developers to easily include System 7.0 features, such as Edition Manager and Apple events, into their applications. It also enables developers to support certain 7.0 features with little or no change to their previous MacApp development work.

"Some time ago many software developers began discovering that MacApp made it simpler and quicker for them to create quality Macintosh software," said Roger Heinen, Apple's vice president of systems engineering. "Now developers will be able to use MacApp 3.0 to easily include the powerful new features of System 7.0 into their new and existing products."

"We've been working with MacApp since its early version 2.0 beta stages," said Sam Roberts, principal engineer of Farallon Computing. "We used it in our MediaTracks product, and are using it for future products as well. With MacApp 3.0, Apple has chosen the key features of System 7.0 that most people will be able to use, like Edition Manager and Apple events support. We're also excited to see the additional tool support in MacApp 3.0 from the utilities MacBrowse and ViewEdit."

ToolServer ToolServer is a stand-alone, tool-execution environment for Macintosh Programmer Workshop (MPW) tools. Programmers can take advantage of ToolServer by running development processes—such as compiling and linking—on their computer in the background, or on a remote Macintosh personal computer when connected to an AppleTalk network. Apple event messages, a System 7.0 feature, allow programmers to control these processes between ToolServer and their development system. The background and remote processing ToolServer offers will aid programmers in their development work. Currently MPW supports ToolServer, and future versions of Macintosh Common Lisp will incorporate ToolServer support, as well.

Apple will make ToolServer available for license to third-party tool vendors who wish to utilize its capabilities. Development environments providing support for ToolServer will be able to provide

transparent access to the extensive family of MPW compilers and development utilities.

In addition to supporting developers in creating System 7.0 applications, ToolServer reflects the company's commitment to adding System 7.0 features to its development tools. This further enhances the integration between Apple's broad family of tools.

SourceBug SourceBug is a direct-manipulation, source level debugger that runs on System Software 6.x, 7.0 and A/UX, Apple's version of the industry-standard AT&T UNIX operating system. In addition to supporting the debugging of conventional, procedural programs, SourceBug provides features for the debugging of object-oriented programs, such as those developed in MacApp. SourceBug, which was implemented using MacApp, offers programmers many features to assist them in their work. One highlight is the ability to quickly navigate through source code by object hierarchy or procedure names. Additionally, developers will benefit from the ability to simultaneously trace through source code and assembly code in side-by-side windows.

BalloonWriter BalloonWriter is a tool for creating Balloon Help for application programs running on Macintosh personal computers using System 7.0. Balloon Help is a feature built into System 7.0 that provides an intuitive on-line help system. BalloonWriter allows programmers an easy, intuitive way to write balloon help for applications menus, windows and dialog boxes.

E.T.O. E.T.O.: Essentials-Tools-Objects is a CD-ROM-based quarterly subscription to the most complete and comprehensive collection of Apple's software development tools for the serious Macintosh computer programmer. It contains the most up-to-date versions of Apple's development tools, as well as selected beta versions of future releases. New editions of E.T.O. are released every three months.

The May 1991 edition of the E.T.O. CD-ROM will be a "System 7.0 Tools Edition" to contain System 7.0 development tools, including a beta version of the new system software. This will allow a broad range of developers to begin working with System 7.0, as well as to take advantage of the new features of MacApp 3.0 and ToolServer.

Availability Beta releases of MacApp 3.0, ToolServer, BalloonWriter and SourceBug will all be available from the Apple Programmers and Developers Association (APDA) on the May 1991 E.T.O. CD-ROM, "System 7.0 Tools Edition."

Distribution Channels E.T.O. is distributed by Apple through APDA.

For information in the U.S., contact (800) 282-2732; in Canada, (800) 637-0029; or internationally, (408) 562-3910.

Suggested Retail Price The $300 E.T.O. annual subscription fee covers four quarterly issues and is available only to APDA members. However, certain prior-purchase requirements must be fulfilled in order to purchase E.T.O. Contact APDA for further information at the above telephone number.

System Requirements A minimum of a Macintosh Plus personal computer with a 40MB hard disk and 2MB of RAM, along with an Apple compatible CD-ROM drive, is required. NOTE: Some applications contained on the disc may require additional hardware.

Digital Vision Ships PAL Video Capture Card

(DEDHAM, MA February 2, 1991) — In an effort to bring low-cost, full color video capture to the international market, Digital Vision announced today that they are shipping a Macintosh II version of ComputerEyes/Pro video digitizer that accepts PAL or SECAM video. This product joins the IBM PC ComputerEyes/Pro PAL/SECAM digitizer that has been shipping since December 1990. Both products offer high quality image capture from any standard video source with resolutions to 640 x 480 pixels at 24-bits (16.7 million colors) per pixel.

The PAL versions of ComputerEyes/Pro sell for $499.95 (U.S. suggested retail price).

While the United States, Japan, and some South American countries use NTSC video, most countries in Europe, Asia, Africa, and the Middle East use PAL video, a different video standard requiring different video capture hardware. The new version of ComputerEyes/Pro answers this need at a very affordable price.

Like the NTSC versions, the new PAL versions of ComputerEyes/Pro will capture an image from any standard video device (camcorder, VCR, still-video camera) and save it in many popular file formats. The accompanying software will save the images for use in desktop publishing, image databasing, multimedia, graphic arts, or a wide range of other applications. Like the NTSC versions, PAL ComputerEyes/Pro has both a standard RCA composite input and a S-video input for optimal images from cameras that are capable of S-video.

"With the success of our NTSC versions of ComputerEyes/Pro in the United States, we believe that it is time to bring affordable, professional video imaging to the PAL-based video community," says company president David Pratt. "The use of color graphics is growing rapidly worldwide and we expect ComputerEyes to fill a growing need for PAL video capture."

The Macintosh version of PAL ComputerEyes/Pro is a NuBus card that works with every member of the Macintosh II family. Capturing color images requires an 8-bit or 24-bit display and at least two Megabytes of RAM. The Macintosh version saves images in PICT, PICT2, TIFF, and MacPaint formats.

These new full-color PAL ComputerEyes/Pro capture cards join the already popular $249.95 black and white PAL versions of ComputerEyes for both the IBM and Macintosh computers. Since 1984, Digital Vision has shipped over 40,000 video digitizers for the IBM PC, Macintosh, Apple II, Atari, and Commodore computers.

Contact:
Steve Sarsfield, Product Manager, Digital Vision, Inc., 270 Bridge St., Dedham, MA 02026, (617) 329-5400

Stunning New Color Game

MACWORLD, SAN FRANCISCO, CA - January 10, 1991. Inline Design today released Tesserae™, a beautiful new puzzle game for the Macintosh. Tesserae, written by Nicholas Schlott, can be seen in the Inline Design booth, number 1836 in Moscone Center.

Deceptively easy to learn, Tesserae is an addictive mix of brain-teasing perplexity and riveting graphics in the form of a mosaic. The player eliminates tiles from a board by positioning them according to their color and texture.

Tesserae offers beginner and advanced levels of difficulty and a variety of board configurations. Like all of Inline's products, Tesserae is not copy-protected in any way. "We refuse to make our paying customers jump through hoops," said Darryl Peck, president of Inline Design. "All they have to do is double-click. We inflict no copy protection schemes, we're MultiFinder friendly, and there is never a need to remove 32-bit QuickDraw or any other files from the System folder."

The game is the third release for Inline Design. Inline's first product, BOMBER, was recently inducted into MacWorld magazine's Game Hall of Fame as Best Simulation Game of the year (December 1990.) Darwin's Dilemma, a big hit at its release at the August MacWorld Expo, has only become more popular in the months since.

"The new lower-cost Macintoshes have rejuvenated the game market," said Peck. "We have made it a policy for all of our games to run on every Macintosh from the Plus up, and Tesserae (along with our other games) is a perfect match for the new machines."

The game, which runs in color and black and white from the same disk, retails for $49.95. Inline Design distributes its products through the Macamerica division of Merisel. Distributors in Japan, Europe, and Australia have also been signed.

Inline Design provides extensive customer support via all of the popular online services such as CompuServe, GEnie, America Online, and AppleLink, as well as by telephone and fax. "We will allow this company to grow only as long as we can maintain our high level of customer support," says Peck. "Many of our customers have written to express their appreciation of the support we provide, which is rather unusual for a game publisher."

Inline Design is a developer and publisher of software for the Macintosh. Founded in 1988 by Darryl Peck, Inline Design is headquartered in the beautiful foothills of Northwestern Connecticut.

Contact:
Anne Lyndon, Inline Design, 5 West Mountain Road, Sharon CT 06069, (203) 364-0063

UK Academics License Products

Redondo Beach, California—January 25, 1991—GSC Associates Inc. today announces that the UK Higher Education and Research Community has negotiated a country-wide site license for Macintosh graphics conversion products from GSC Associates.These products are based on the Computer Graphics Metafile (CGM) standard developed by the International Standards Organization (ISO) and adopted as a British standard by the British Standards Institute (BSI). The license agreement between GSC Associates and the Combined Higher Education Software Team (CHEST) allows use of GSC's GraphPorter™ and MetaPICT™ products at over 190 Universities, Polytechnics, Colleges of Higher Education, and Research Councils throughout the UK.

CHEST was founded in 1988 with the objective of obtaining quality commercial software for the UK Higher Education and Research Community at low prices under terms which are attractive to both suppliers and customers. This community serves a population of more than 850,000 full-time students. Until the formation of CHEST there was no central body to negotiate with suppliers on behalf of the whole community. In addition to selecting a few high-quality products for the sort of "centrally-funded" license purchased for GSC's products, CHEST also negotiates education discounts with software suppliers for single-copy purchases. To be selected for a centrally-funded purchase, a product must be thoroughly evaluated by an independent group within the community and must meet a number of criteria regarding its potential for use within the Higher Education community.

Single copies of GraphPorter and MetaPICT have been used by Universities and research organizations in the UK and elsewhere in Europe for several years. They are widely used for:

- ❑ transferring symbol libraries, clip art, and presentation graphics to and from graphics arts workstations—such as those of Genigraphics, Pansophic, and Autographix;
- ❑ transitioning from PC-based drawing and presentation applications to Macintosh-based applications without redrawing existing artwork;
- ❑ creating integrated in-house graphics arts systems with sharing of both text and graphics among Macintoshes, PCs, and graphics arts workstations.

GSC has been shipping CGM conversion products for the Macintosh since November 1988. These products are based on a library of C language routines that convert between CGM and Macintosh formats at the object level. GSC's GraphPorter™ product is a printer driver that works with most applications on the Macintosh family of computers. Instead of immediately printing the document, a description of it is saved to disk in CGM format. This lets a user send graphics generated on the Apple Macintosh to other computers. GSC's MetaPICT™ is a Macintosh application that translates a CGM into a PICT or PICT2 file. MetaPICT provides a quick and reliable way to bring graphical information

generated using other computers—including the IBM PC and most mini-computers and mainframes—to the Macintosh.

The CGM conversion routines that form the basis for GraphPorter and MetaPICT are available for licensing to developers who wish to add CGM import and/or export capability to their products. The technology embodied in these routines is mature and has been refined over the last three years based on the experience of thousands of users transferring graphics files between the Macintosh and the hundreds of applications and systems that generate and interpret the CGM format. GSC Associates' technology is a full and complete implementation of the CGM standard—including raster bitmaps and patterns—and is compatible with products ranging from the simplest PC-based drawing applications to the most sophisticated CAD and publishing systems.

For further information about CHEST you can contact: Mike Johnson, Director, National Services, CHEST, Bath University Computing Services, University of Bath, Claverton Down, Bath BA2 7AY Phone: 0225-82-6024

Founded in 1981, GSC Associates is a systems engineering firm that specializes in development of special-purpose signal and information processing systems for the US Government. GSC Associates has been an active participant in the development ANSI and ISO computer graphics and office document interchange standards for over ten years.

Contact:

Steve Carson, GSC Associates Inc., 2304 Artesia Boulevard, Suite 201, Redondo Beach, California 90278-3114, Telephone: 0101-213-379-2113, Facsimile: 0101-213-379-1649

RUN™ for the Classic

NUREMBERG, Germany, Jan. 31, 1991

RUN Electronic Design System™, a product of formula GmbH, is well known as a high performance tool for electronic design. With REAL-Annotation™, free attribute handling, On-line Checks, hierarchical schematic capture, EDIF-output, interface to Mixed-Mode-Simulation, layout-tiling etc. it is a professional system that satisfies all requirements in this area. In November 1990, formula GmbH introduced RUN Assistant™ for the professional user that does not require all the sophisticated features of RUN EDS, but still needs a professional and easy to use design tool.

RUN for Classic is a new tool for schematic capture to be used with one of the latest computers from Apple, the Macintosh Classic. The software works also on the older Macintosh Plus and SE with a minimum of 2 MB of RAM and a 20 MB harddisk.

RUN for Classic will be used as a front-end design tool for schematic capture in the industry as well as in educational and research institutions. Supported netlist formats are EDIF 2.0 and Spice for interfacing to other systems or simulators and the RUN netlist to create the corresponding layout with RUN EDS or RUN Assistant.

RUN for Classic features

- integrated library editor (schematic and optional layout description)
- component library of 3.000 elements
- up to 1.000 pages with on-line design rule checks
- orthogonal rubberbanding of nets
- automatic Busrouting
- Netsymbols, common pins and multiple power supply pins
- save, load and duplicate groups of objects
- netlist generator, graphic output (PICT), HPGL, EDIF 2.0, Spice
- unlimited UNDO/REDO-steps
- complete documentation

RUN for Classic sells for US $325.- + tax and shipment.

Special discount for non-profit-Institutions (research institutes, universities, students, teachers ...) on inquiry.

RUN for Classic is available now.

Further information will be given by Marketing Director Mr. B. S. Patil.

formula GmbH is a leading manufacturer and distributor of high performance CAE-software. formula is marketing directly, through distributors and dealers world-wide. Its engineering experience in hardware and CAE-software goes back until 1983, when CAE-tools required special hardware. formula is committed to maintain the highest standards of product quality, performance and customer service. That's why engineers and other end-users rely on formula for the best solutions to their EDA-requirements. The support for Apple Macintosh began 1987 after the Apple Macintosh II computer appeared. Since then, the products of formula GmbH have helped that the Apple Macintosh today is acknowledged as an engineering platform.

Contact:

B.S. Patil, formula GmbH, Spittlertorgraben 47, 8500 Nuremberg 80, Germany, 49/911/286600

Network SuperVisor, Jr.

Pittsburgh, PA., February 12, 1991 - The CSG Technologies division of Management Science Associates, Inc., today announced a complementary product to their Network SuperVisor™ network information tool: Network SuperVisor, Jr.

Network SuperVisor, Jr. is designed to help network administrators manage their networks more efficiently by allowing them to query each Macintosh on the network for complete hardware and software configuration information. Network SuperVisor, Jr. can retrieve system configuration, operating system, SCSI, NuBus, PRAM, Application, DA, FONT, and INIT (System Extension) information. All information is returned in real time, without any user interaction, across any AppleTalk network - even through zones, bridges, and gateways.

Network SuperVisor, Jr. is a Chooser device which allows managers to access this information from their Chooser while in any application. Network

SuperVisor, Jr. works with the same responder INIT used by CSG Technologies' original high-end network information application, Network SuperVisor. Managers can print returned information, or save it to a text file.

Network SuperVisor, Jr. costs $249, including an unlimited SuperVisor Responder UserPack, which allows you to install the responder INIT on every Macintosh on your network at no additional cost.

The new Network SuperVisor, Jr. will begin shipping in mid-March, 1991.

CSG Technologies is the leader in real-time network management and database applications. The company's high-end network information application, Network SuperVisor, contains all of the features listed above, plus the powerful built-in 4D database that allows users to search and sort, as well as create custom reports, graphs, and labels, without leaving the application. In addition, users can create and display "live" network schematics which show the status of every device on the network, and allow the manager to scan and analyze a single station, a zone, or the entire network.

Contact:

Tom Meston, CSG Technologies Division of Management Science Associates, Inc., 530 William Penn Place, Suite 329, Box 131, Pittsburgh, Pennsylvania, 15219, USA, 412/471-7170.

Upgrade for AppleFax Modem

Dateline: San Francisco, CA—January 10, 1991

Product Description: The AppleFax Product Upgrade will provide owners of the AppleFax Modem* with enhanced fax capabilities. The product upgrade consists of BackFAX 1.5, the leading fax modem software for Apple Macintosh personal computers. Normally priced at $245, BackFAX will be offered to all AppleFax Modem customers for just $29 (plus $6 shipping and handling). Those who have purchased BackFAX after October 15th, 1990, will be given a coupon good for a $75 rebate on Solutions' network fax software products.

Significance: BackFAX 1.5 enhances the functionality of the AppleFax Modem and will also be compatible with System 7.0, Apple's next major release of system software. It allows users to send and receive faxes in the background while doing other work on the Apple Macintosh computer. It also supports features such as a gallery of user created cover pages, delayed send to take advantage of cheaper phone rates, personalized address lists, conversion of incoming faxes to TIFF for use with OCR software, and an upgrade path to Solutions' network fax software. In addition, BackFAX cuts transmission time and cost by imaging the page prior to connecting to a phone line, and sending and receiving at 9600 baud.

Distribution: To take advantage of the offer, AppleFax Modem owners who have not purchased BackFAX or owners of BackFAX who do not yet have version 1.5 should send proof of ownership of either the AppleFax Modem or BackFAX along with $29 (+ $6 handling) check, money order, or VISA or Mastercard account number to: Solutions, Inc., Box 783, Williston, Vermont 05495. Credit card orders can be faxed to 802-865-9224 or placed by phone at 802-865-9220.

Customers who purchased BackFAX for the AppleFax Modem after October 15, 1990, can receive a coupon good for a $75 rebate on either FAXGATE, Solutions' fax gateway for Microsoft Mail and QuickMail, or BackFAX/AppleTalk version, Solutions' network software for sharing a single fax modem and phone line without a LAN mail system. FAXGATE is currently available. BackFAX/AppleTalk version will be available in the Spring of 1991.

Eligibility Requirements: AppleFax Modem users must supply one of the following by May 1, 1991 to be eligible: - Sales receipt for AppleFax Modem - Original AppleFax Modem application disk - Be on the Apple AppleFax Modem registered users list

Solutions' BackFAX users must supply one of the following by May 1, 1991 to be eligible: - Original BackFAX application diskette - Be on the Solutions' BackFAX registered users list - Proof of purchase dated later than October 15, 1990 (only needed for network software coupon)

Contact:

Kate Paisley, Mary Evslin Apple Computer, Inc., Solutions, Inc. 408-974-5453, 802-865-9220

*Editors Note: The AppleFax Modem was discontinued July 31, 1990.

TimeWand II New 128K

Corvallis, OR--August 1,1990 -- Videx, Inc. announces a 128K version of the TimeWand II portable bar code reader. The 128K TimeWand II meets industrial users demand for a portable bar code reader with a large memory capacity contained in a small, functional package. It is capable of handling large cross reference files and building complex hierarchical applications. The 128K TimeWand II can store up to 5000 bar code scans or cross reference files of up to 4500 entries.

The 128K TimeWand II utilizes a unique internal battery recharging system that prevents overcharging of the batteries. This recharging system maximizes the life and performance of the TimeWand II's Ni-Cad batteries.

Other standard features include a 19 button Keypad and a 32 character liquid crystal display which automatically shows the bar code that has been scanned, along with the date and time. The read head uses optics in the visible light range and an optional infrared read head is available. Bar code symbologies read by the TimeWand II include Code 3 of 9, Interleaved 2 of 5, Codabar, UPC A and E, and EAN/JAN 8 and 13. A built-in asynchronous RS-232 serial port can transmit the data at rates from 300 to 19.2K baud.

Videx will continue manufacturing the 32K and 64K TimeWand II models as standard production units.

Contact:

Dag Pedersen, Videx, Inc., 1105 NE Circle Boulevard, Corvallis, OR 97330-4285, Telephone: 503-758-0521, Facsimile: 503-752-5285

Improved Mac Portable

Apple Computer introduces two important improvements to the Macintosh Portable computer:

- Backlighting of the display
- Increased memory expansion

This new version of the Macintosh Portable features a backlit Active Matrix Liquid Crystal Display (AMLCD). It allows the Portable to be used in an even wider variety of lighting conditions, from the bright light of outdoors to the lower lighting levels when working indoors. Addition of the backlit display will not require any additional memory. The typical battery life of the lead-acid battery is between 3 to 6 hours depending on backlighting brightness and hard disk usage.

There will be a Macintosh Portable Backlight Upgrade available to original Macintosh Portable users to take advantage of the new backlit display. The upgrade kit includes a backlight display assembly, a ROM card that controls the backlight and an updated set of system software and user documentation. This upgrade must be installed by an Authorized Service Provider.

The new Macintosh Portable model will be offered in either a 2- or 4-megabyte configuration with a 40MB hard drive. It can be expanded to a total of 8MB with third-party products. Apple Computer will not be offering any RAM upgrade kits for the new model. The RAM used in the new Portable is pseudo-static RAM, which cannot be used in the original Portable, nor can the static RAM of the original Portable be used in the new models.

Macintosh Portable 2/40
M5381LL/A Macintosh Portable 4/40
M5382LL/A Macintsoh Portable Backlight Display Upgrade Kit
M5540LL/A

MacLinkPlus Version 5.0

San Francisco, CA—January, 10, 1991—DataViz announced today at MacWorld Expo the addition of fifty new file translators and DOS Mounter™ software to its MacLink®Plus version 5.0 "databridge" products for the Macintosh.

New translation features in version 5.0 include support for Word for Windows, WordPerfect 2.0 for the Macintosh, MultiMate 4.0, FrameMaker and Windows graphics.

DOS Mounter software in version 5.0 products provides the Macintosh user wit full visibility on the Macintosh desktop, and within all Macintosh applications, of DOS disks inserted in the FDHD SuperDrive and most other DOS removable media drives.

"Our experience over the years with our customer base has shown us that as soon as new products start appearing on desktops in a mixed computer office, the Macintosh user is the first to start looking for databridges to and from the new products. Keeping this in mind, we put a great deal of work into getting file translation support for Windows applications, as well as support for the new WordPerfect 2.0 and MultiMate 4.0 products in this release," said Dick Fontana, president of DataViz, Inc.

"Our decision to add DOS Mounter to our products is another story. With so many Macs being sold with FDHD SuperDrives, more and more users are counting on 'sneakernet' for their ad hoc file transfer. Lately, our tech support group spends a great deal of time explaining to users why they are forced to use a special application, Apple File Exchange, just to access DOS disks in the SuperDrive. We've now concluded that more users do need file transfer and translation via the SuperDrive, but they need it to be as transparent as accessing any Mac file. So we called on our long standing relationship with Dayna to create a SuperDrive solution that gets users what they really need in a single package - a broad range of file translation capabilities, along with full DOS disk visibility".

The new translators, along with DOS Mounter, have been added to version 5.0 both the MacLinkPlus/Translators and the MacLinkPlus/PC products.

MacLinkPlus/Translators provides a complete solution for the Macintosh user who needs to access PC files in the FDHD SuperDrive or on a file server or hard disk. The translators, over 250 combinations in all, convert word processing, spreadsheet, graphics and database files created in one application, into a format that is immediately usable in another. The DOS Mounter software provides direct access to DOS disks inserted in the Macintosh FDHD SuperDrive.

MacLinkPlus/PC is an easy-to-use product containing all software and cabling needed for bi-directional, error-free file transfer and conversion between a Macintosh and a PC, XT, PS/2, laptop, compatible, Sun or NeXT computer. MacLinkPlus/PC includes the complete MacLinkPlus/Translators library of file translators and the DOS Mounter software for the Macintosh FDHD SuperDrive.

MacLinkPlus/PC version 5.0 will retail for $199 and MacLinkPlus/Translators version 5.0 will retail at $169 when the products are available in February. These new versions will be available to registered users for $50, and recent purchasers can receive upgrades for only $20.

DataViz is a privately held Connecticut corporation, specializing in the development and publishing of award winning databridge software. Recent awards include the 1989 MacUser Editors Choice Award for MacLinkPlus/PC version 4.0, voted Best Connectivity/Networking Software. MacLinkPlus versions are also available for exchanging files between Macintosh and Wang VS, Wang OIS and NBI environments. All products come with everything needed for complete installation.

Contact:
Stacey Graham, DataViz, 35 Corporate Drive, Trumbull, Connecticut, 06611. For further information call (203) 268-0030.

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WARNING: The sale of copied or pirated software is illegal.

Please ensure that items offered for sale are new or are re-registered.

FOR SALE

APPLE //europlus, two 5.25" disc drives, paddle, Philips orange monitor, various interface cards, software for //e & //+, Homepack, Printshop, Moviemaker, Applewriter, DOS 3.3 Sample, Systemmaster, Skyfox, Robographics etc. .... **(the lot)£100.00**

'Phone S. Wilson .....

FOR SALE

APPLE //e [ENHANCED]
TWIN DISK DRIVES PLUS CONTROLLER
Z-80 CARD WITH 64K
(RUN CPM, LARGEST CATALOG OF BUSINESS SOFTWARE)
PARALLEL PRINTER CARD
PRINTER BUFFER
RAMWORKS III POPULATED TO 1MB
(80 COLUM DISPLAY + APPLE WORKS EXTENSIONS)
PROFESSIONAL JOYSTICK
12" HIRES GREEN SCREEN MONITOR
DOS 3.3
PRODOS
APPLE WORKS (word processor, database, spreadsheet)
20 ASSORTED DISKS OF VARIOUS SOFTWARE
ALL ORIGINAL WITH MANUALS

COMPLETE SYSTEM ..... **£750 o.n.o.**

PLEASE PHONE WARREN (evenings) .....

FOR SALE

Going over to MAC LC so ALL must go.....Offers considered.....

Hardware

1 Apple IIe enhanced 128K C/W DuoDisk, Grappler (buffered) parallel printer card, Apple II monitor, mouse+I/F dust cover, Cirtech fant * BARGAIN * **£275**
2 Oki 193 132 col NLQ serial/parallel wide carriage printer with cut/tractor feed **£160**
3 Nightingale modem, Mastercard II, Data Highway V2.0 comms S/W all NEW **£98**
4 Apple IIc with 9" Monitor, ext d/drive Color Modulator, AE Clock+S/W, Manuals **£225**
5 Laser 128k *NEW*, Power unit (UK), disks manuals etc in box (brought for friend) **£290**

IIgs Software

1 Visualize Business Graphics GS *NEW* **£18**
2 GraphicWrite *NEW* **£24**
3 DeLuxe Paint II *NEW* **£25**
4 Music Construction Set *NEW* **£25**
5 World Tour Golf *NEW* **£18**

Mac Software

1 Deluxe Music Construction Set (Mac 512k) **£30**

II,+,e,gs Hardware

1 Apple II+ system unit only **£36**
2 IIe PSU **£23**
3 64k Parallel Grappler **£20**
4 Apple II parallel I/F (inc. cables) **£19**
5 Videx 80 col card **£15**
6 Apple II 5 1/4 Disk drive **£26**
7 CPM card **£11**
8 Apple II 80 col card **£14**
9 Titan Accelerator+S/W (Speeds IIX3.5) **£32**
10 Mach 1+ Joystick *NEW* **£25**

P.S There were more bits that couldn't be fitted on so feel free to call for details as all MUST go to make way for the LC.

'Phone Mark Woodruff (evenings) .....

FOR SALE

New and complete Caere TYPIST for MAC with 4MB ram **£275**

'Phone J. Servente .....

FOR SALE

1. VISICALC for //e, manual and disk ..... **£15+post**
2. APPLEWORKS v2.0, includes all manuals and all disks in original box ..... **£50+post**

'Phone Tony (after 6:30pm) .....

FOR SALE

Apple LaserWriter IINT.
Excellent condition. Offers in region of **£1450**

'Phone Ivor Smith .....

FOR SALE

COMPLETE HOME SYSTEM.
Apple //e 128K enhanced, with Symbiotic 21 Meg hard disc,with built in Teac tape streamer. (Dos,Prodos 8,and Pascal)
A.E.High output power supply, BMC monitor, Apricorn parallel card, extended 80 column card, Saturn 128K ram card (for extended Appleworks desktop), two Apple Disc II drives with controller card, joystick, and games paddles. Software on hard drive and original disc, includes Appleworks 2, (patched for ram card), Publish IT!, OMNIS DB, Dazzle Draw, Copy II+ v8.4, Let's Make series, (Print Master), Plus Works 2, and Prodos, Dos 3.3, and Symbiotic+ tape streamer utilities.
All complete with manuals for software and hardware.
Offers around **£385**

'Phone Richard (after 4.30pm) .....

FOR SALE

IIGS SOFTWARE

1) LASER FORCE [AS NEW BOX,MANUAL,DISK] **£15**
2) WORLD TOUR GOLF [AS NEW BOX,MANUAL,DISK] . **£15**
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4) GRAND PRIX CIRCUIT [V.G.C. DISK,MANUAL(P/C)] .. **£15**
5) MUSIC STUDIO [V.G.C. DISK,MANUALS,BOX] **£30**

II SOFTWARE

1) KING'S QUEST I,II [DISKS,MANUALS] ..... **each £15**
2) LEISURE SUIT LARRY [MANUAL,DISKS] **£15**
3) BLACK CAULDRON [MANUAL,DISKS] **£15**
4) SPACE SHUTTLE [AS NEW DISK,BOX,MANUAL] **£15**
5) BATMAN [AS NEW DISK,BOX,MANUAL] **£15**
6) EMPIRE 1 [AS NEW DISK,BOX,MANUAL] **£10**
7) THE GAME SHOW [BOXES,MANUALS,DISKS] **£10**
8) THE COVERTED MIRROR [AS NEW BOX,MAN.,DISK] **£15**
9) RAMBO 1ST BLOOD [BOX,MANUAL,DISK] **£10**
10) RAMUP VER.4 [BINDER, DISKS, MANUAL] **£17**
11) JET [A/N BOX,MAPS,DISKS,MAN.,JAPAN SCENERY] **£25**
12) FLIGHT SIM. 2 [A/N BOX,MANUALS,MAPS,DISKS] ... **£25**
13) MUSIC CONS. SET [MANUAL,DISK,BOX] **£7**
14) SCREENWRITER II [DOS BINDER,MANUALS, DISK] . **£35**

HARDWARE

1) APPLE IIE (ENHANCED) SYSTEM, INCL. EVERYTHING NEEDED, SOFTWARE ETC. (RING FOR DETAILS) V.G.C. **£400**

ALL PRICES INCLUDE POSTAGE AND RECORDED DELIVERY.

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Travel Details and Local Information for the AGM.

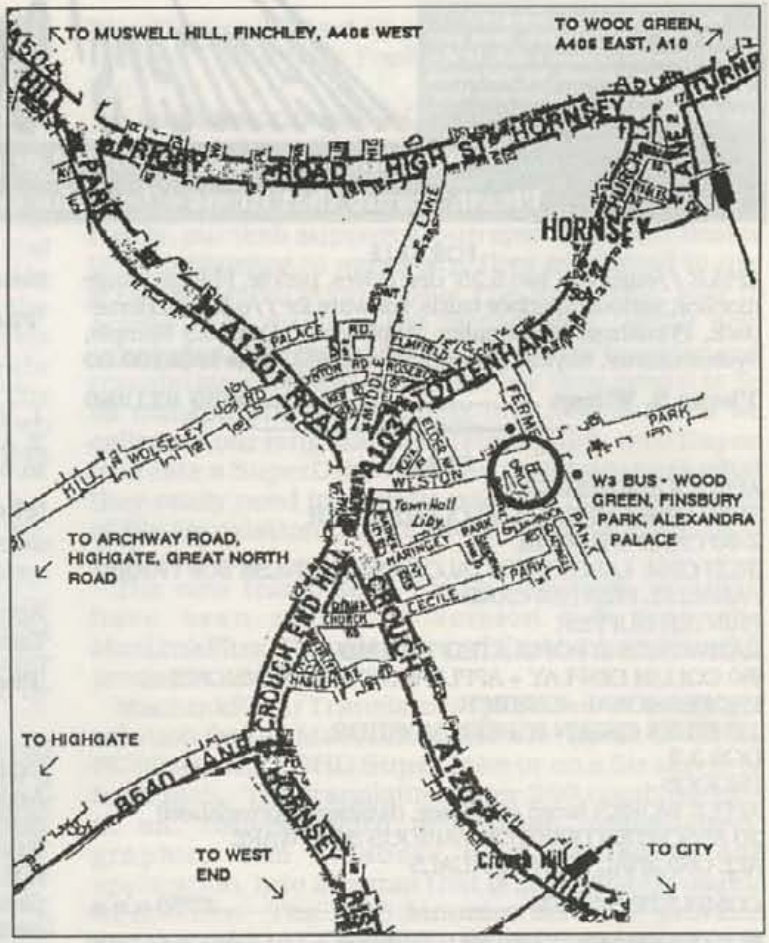
Location
The Annual General Meeting will be held on Saturday 13th April at 11 am in the Union Church Community Centre, 143 Ferme Park Road, London N8.
The building is on the corner of Ferme Park Road and Weston Park, N8 and the entrance is on Weston Park.

Buses
W3 buses stop at this junction from Finsbury Park, Wood Green, Alexandra Palace.
W2, W7, 41 & 14 buses stop within a few minutes walk and serve Enfield, Muswell Hill, Archway, Piccadilly.

British Rail
British Rail stations on these routes are Finsbury Park, Crouch Hill (North London Link), Alexandra Palace and Hornsey on the Kings Cross main line.

Underground
Nearest tube stations are Finsbury Park (Piccadilly & Victoria lines, W3 bus) and Wood Green (Piccadilly, W3 bus) and Archway (Northern line, 41 bus).

Hotels and Restaurants
There are hotels nearby on Church Lane, 'Aber' on Crouch Hill, 'Raglan' & 'Queens' in Muswell Hill, N10, but we can't vouch for any of them.
100 yards east on Weston Park there are service shops for snacks etc., and an off licence. There are literally dozens of restaurants, cafes and fast food places for eat-in, take away or delivery within five minutes walk on Crouch End Broadway and Tottenham Lane, to suit all tastes - Afro-Caribbean through Vegetarian Malaysian, Indian, Chinese, Italian, French, Greek, to Pizzas, Burgers and sandwiches.



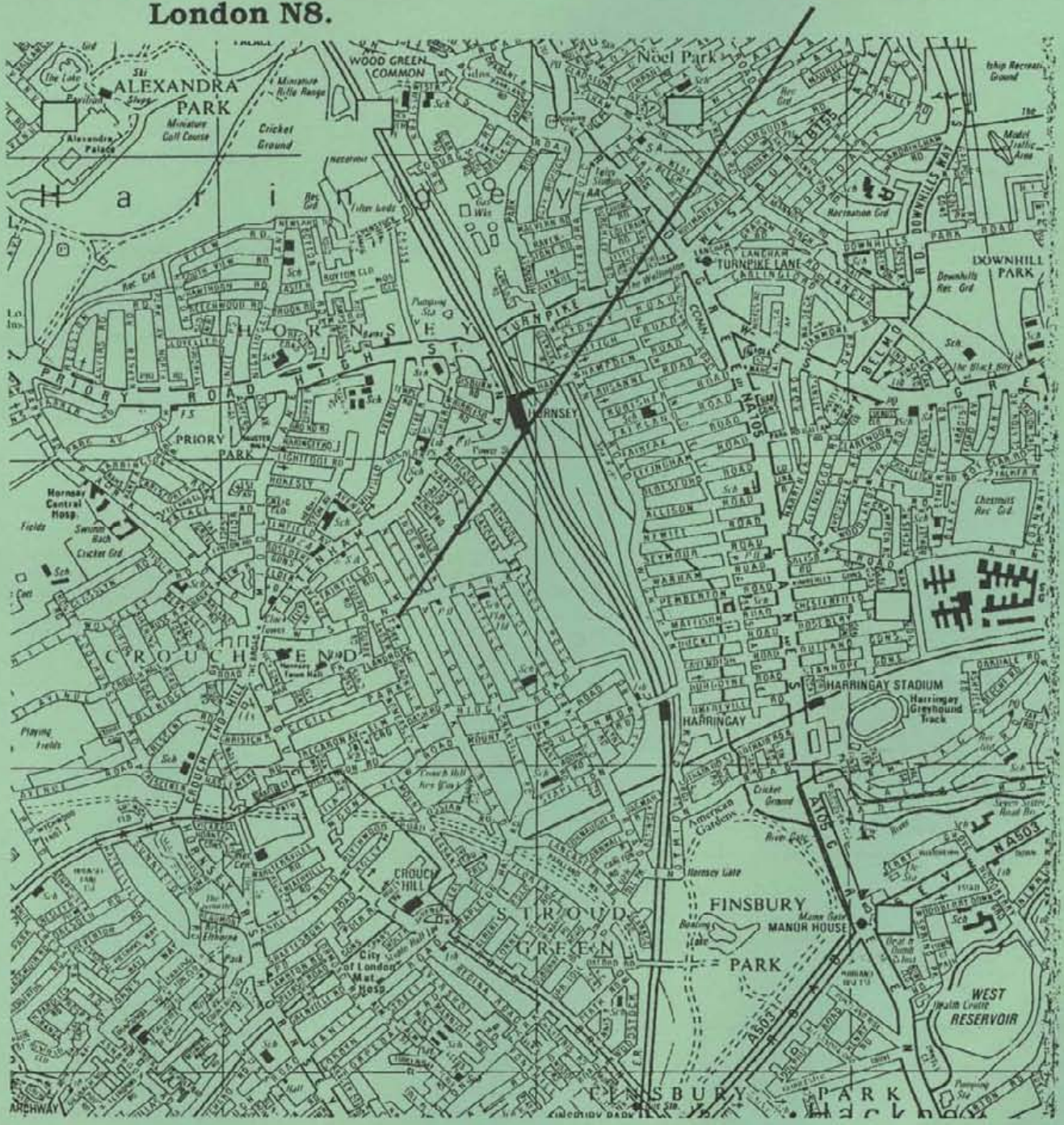
Bring and Buy Sale!

There will be a Bring and Buy Sale in the afternoon, so bring along your unwanted computer items, hardware, software, books, etc. Be prepared to stick a price on them so that people can view the items and decide what to buy. You never know, you might go home with a bargain!

Apple2000 AGM

The Annual General Meeting of Apple2000 will be held on Saturday 13th April at 11 am in the Union Church Community Centre, 143 Ferme Park Road, London N8.

There will be a Workshop and Bring and Buy Sale in the afternoon.
The building is on the corner of Ferme Park Road and Weston Park, N8 and the entrance is on Weston Park.



March 1991

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31						

April 1991

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May 1991

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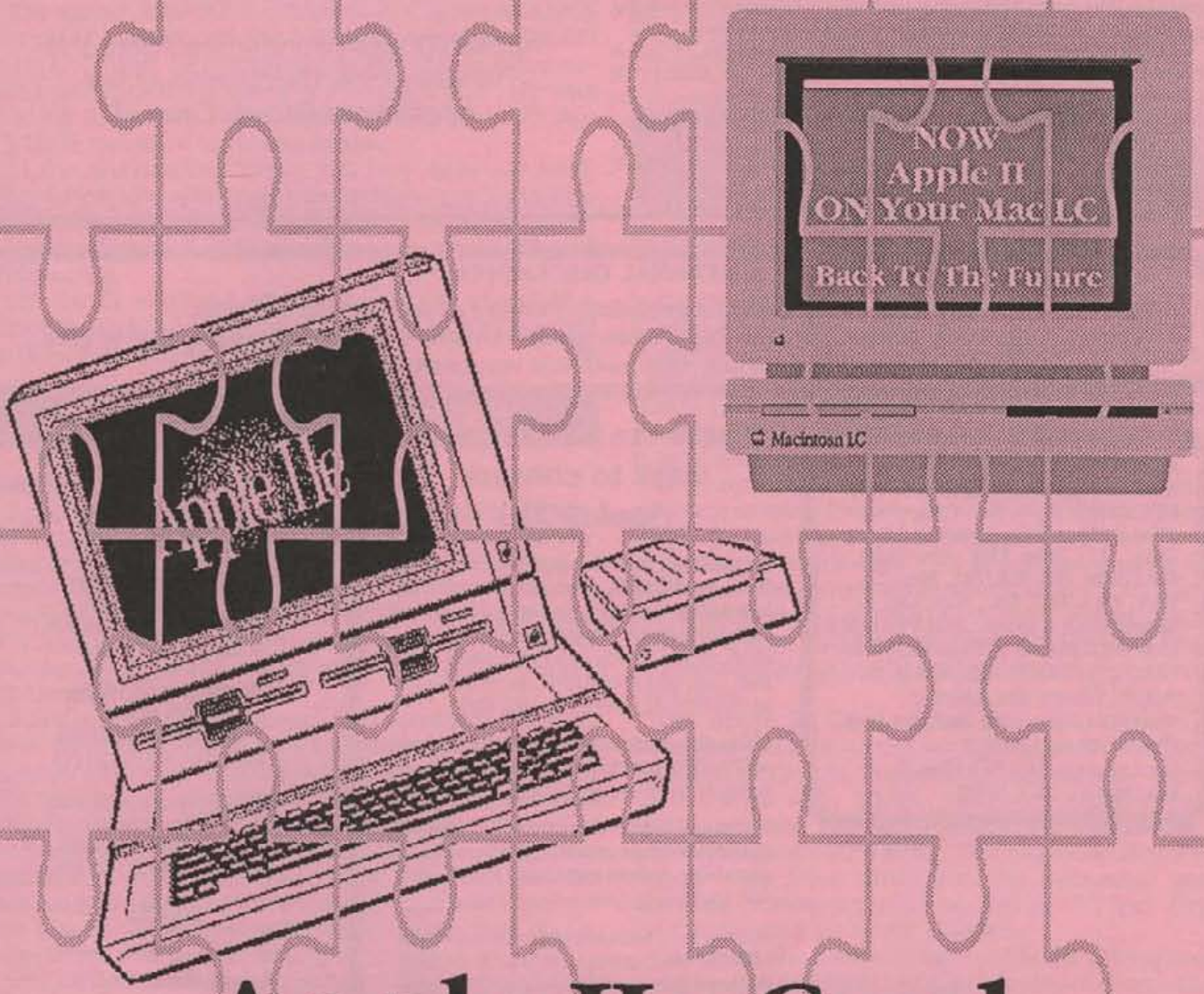
Apple Slices

May 1991

A bi-monthly Newsletter from Apple2000

Issue 23



Apple IIe Card Now You Can Go Back To The Future

Annual subscription rates are £30.00 for UK residents, £35.00 for E.E.C. residents and £40.00 for other overseas members.

Apple2000™ is a trading name of BASUG Ltd, a non-profit making independent company limited by guarantee.

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The Editorial team is:

Apple II
Ewen Wannop
Elizabeth Littlewood

Macintosh
Norah Arnold
Irene Flaxman

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

Additional thanks to Walter Lewis of Old Roan Press (051-227-4818) for our printing service.

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

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Apple2000 actively discourages the duplication of such software in violation of applicable laws
People engaged in such activities bear sole responsibility for their actions

Apple2000 supports users of all the Apple computers. The **ITT 2020, I, II, II+, //e, //c, //c+, IIgs, IIgs+, ///, Lisa, XL, Mac 128, Mac 512, MacPlus, SE, SE/30, Mac II, IIcx, IIci, IIsi, IIx, IIfx, LC, Macintosh Classic** and **Portable**
Contributions and articles for the Apple2000 magazine oe Apple Slices are always welcome. We can handle any disk size or format.
Please send to PO Box 3, Liverpool, L21 8PY.

There are a number of ways to contact Apple2000

If you wish to order goods or services from Apple2000, or if you just wish to leave us a message, please call Irene on [illegible] (Ansafone during the day). Alternatively, you can send us a Fax. on [illegible]; or write to us at PO Box 3, Liverpool, L21 8PY.

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 will try to help you.

We are very interested in the activities of local user groups. If you have any information which you would like publicised, 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. We'd be especially interested to receive any suggestions about what you would like to see in **your** magazines and newsletters.

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Apple2000 1991 AGM

The 1991 Apple2000 Annual General Meeting was held in London on the 13th of April. Attendance was not as good as we had hoped with a London venue, but an interesting day was had by all those who managed to venture forth.

The new committee for the coming year comprises, Ewen Wannop (Chairman), Irene Flaxman (Treasurer), Norah Arnold (Secretary) and Elizabeth LittleWood, John Arnold and John Lee as committee members. Mike Dawson has agreed to help with the committee and will be co-opted as Press Officer.

The grand draw for the Macintosh Classic was held during the AGM and the lucky winner was Ronald Rushton from Berkhamstead. Ronald is semi-retired and has been using a //e until now. He was thrilled to receive the Classic having been an Apple2000 member for many years.

In the afternoon a 'Bring and Buy' sale was held. There were lots of bargains from those members who had raided their goodies boxes, and also many bargains from ClockTower, Chameleon, ESCO and Bidmuthin.

We thank all those who helped make the AGM a success. The full minutes of the AGM will be printed in the June issue of Apple2000.

System 7.0 Launched

Dateline Sometime 1991

Apple2000 has been caught out by a quirk of time. We have to get the editorial copy for Slices to the printer some time before you actually receive your printed copy. By the time you read this we confidently expect that System 7.0 will be with us at last. But in the long tradition of Apple, they will not of course tell us whether they will or will not release it till the actual launch date!

It is expected that System 7.0 will cost around £35-£50. System 7.0 will not be given away by your friendly dealer as is usual with new system releases. The reasoning behind this is that with many new and innovative features, it will be necessary to have the manuals in order to properly install and use the new system. This of course means that the disks and the manuals must be bundled together and sold through the normal dealer network rather than given away. Hypercard 2.0 is sold in a similar way.

Before you decide whether to install System 7.0 or not we suggest you bear the following points in mind. Even at Apple2000 headquarters we do not know all the many pitfalls that might ensue. We shall be in a learning curve as will the rest of the membership. We shall coordinate the learning process through the Macintosh Hotline and the magazine. There is no doubt that it is an important milestone in Macintosh history, but it will take time till we are all comfortable with it.

If you only have 1 megabyte of memory in your Mac you must stay with 6.0.4 through 6.0.7. For those with only 2 megabytes you may find even that is insufficient to run the system fully. After all System 7.0 only comes into its own under its own version of MultiFinder.

System 7.0 principally uses TrueType fonts. These are not directly compatible with Postscript. We expect that the system will be transparent to existing Postscript fonts but this is still to be clarified.

Those of you using a network of two or more Macintoshes will be able to throw away your TOPS and AppleShare. System 7.0 has its own built in networking capability.

In due course we shall be able to bring you more information on the new system. Remember that you must backup your existing hard disk before you even look at the new System disks and there will be many incompatibilities with existing software. All the major publishers have been working on new releases that will be compatible with System 7.0. We expect a rash of updates any day now!

Apple Ships Apple IIe Card for the Macintosh LC

CUPERTINO, California—April 2, 1991—One of the world's largest collections of personal computer software is now available to owners of the new Apple Macintosh LC personal computer who purchase the Apple IIe Card announced in October 1990. Apple Computer, Inc. began accepting orders for the optional card on February 25, 1990, and will begin shipping orders by the end of March 1991. The Apple II card has a suggested retail price of $199.

"The Apple IIe Card is especially good news for customers who already have a large investment in Apple IIe and Apple IIc software," said Bob Puette, president of Apple USA. "It also gives greater freedom of choice to new computer owners who want to enjoy the benefits of Macintosh-style computing and still be able to choose from the huge library of Apple II programs already written for education, home and business."

The Apple IIe Card takes full advantage of the Macintosh LC computer's peripherals, including the monitor, keyboard, floppy drive and mouse. The new card comes with 128K random access memory (RAM) and can use up to 1MB of the Macintosh LC personal computer's RAM. The card also features a floppy disk drive controller and connector ports, allowing customers to connect to a 5.25-inch floppy disk drive and an Apple joystick.

"Because the card contains a 65C02 microprocessor, this is virtually an Apple IIe 'computer on a card.' It gives a high level of compatibility with existing Apple IIe programs and in most cases actually runs them with a speed, clarity of color and resolution that are even better than what they'd be on a standalone Apple II computer," said Puette.

Apple created the Apple IIe Card as an option for the processor direct slot on the Macintosh LC computer to address the special needs of schools and other customers with an investment in Apple II technology and software. The card is shipping according to the schedule promised at the October 15 introduction of the low cost Macintosh products.

❑ The IIe card will NOT run Apple IIgs software! **Ed.**

Apple Makes Macintosh Programming Easier

CUPERTINO, California—April 15, 1991—Apple Computer, Inc.'s Developer Group today announced the availability of the "Developer Resource Kit" and "Getting Started" bundles, cost-effective packages of self-help development support tools for people new to Macintosh computer programming. Also announced today was the availability of AppleLink, Apple's online information and communication network, to any Apple development customer. These new self-support products are made available from Apple through APDA (Apple Programmers and Developers Association).

"These new tool bundles are a complete collection of Macintosh technical resources for both new and existing Macintosh developers," said Kirk Loevner, director of the Apple Developer Group. "These bundles demonstrate Apple's continued commitment to assisting developers in their initial and ongoing programming efforts."

"Developer Resource Kit"

The Developer Resource Kit provides a complete bundle of the most valuable self-support tools from Apple's library of development resources. Developers new to Apple programming, or any developer desiring up-to-date Apple development information and a connection to the Apple community, will find the resources they need to help keep them referenced and informed. The Developer Resource Kit includes such items as AppleLink, subscriptions to develop, Apple's quarterly technical journal, and APDAlog, a quarterly product catalog, as well as coupons for free offers or discounts on future development product purchases. The individual resource tools contained in this kit provide developers a convenient and cost-effective bundle.

"Getting Started" in Macintosh Programming

For a limited time, C and Pascal programmers getting started in Macintosh computer programming can purchase specially priced third- party language and documentation bundles. For the C programmer, Apple offers Getting Started in Macintosh C Programming, a package containing THINK C v. 4.0, as well as four volumes of technical documentation. For the Pascal programmer, Apple has developed Getting Started in Macintosh Pascal Programming, which includes THINK Pascal v. 3.0, Just Enough Pascal and three volumes of technical documentation. THINK C and THINK Pascal from Symantec Corporation have been the popular choice for thousands of development customers getting started in Macintosh programming. Both Getting Started bundles are available through August 1, 1991.

AppleLink

For the first time, Apple developers and programmers can now subscribe to AppleLink through APDA. AppleLink provides a direct connection to the Apple community and access to technical and marketing information. Special bulletin boards offer access to development information and the opportunity to exchange ideas with other developers. AppleLink is currently available to U.S. developers only as a stand-alone product, or as part of the Developer Resource Kit.

Availability and Distribution

The Developer Resource Kit, the Getting Started bundles, and AppleLink are all available immediately from Apple through APDA. In the U.S., interested developers should call (800) 282-2732. In Canada, call (800) 637-0029. International developers, call (408) 562-3910.

Contents and Pricing

Developer Resource Kit:

❑ Annual subscription to develop, Apple's quarterly technical journal and CD
❑ Annual subscription to APDAlog, Apple's development products catalog
❑ Developer University course catalog
❑ Macintosh Directory of Development Services
❑ Developer Resource Guide
❑ Coupons for free offers or discounts on future development product purchases

Without AppleLink (Outside U.S.)
$110 Part #R0015ZP/A

Getting Started Bundles:

Macintosh C Programming
$250 Part #B0473LL/A
❑ THINK C v.4.0 (Symantec Corporation)
❑ Macintosh C Programming Primer; Volumes 1-2, by Dave Mark and Cartwright Reed (Addison-Wesley-Publishing Company)
❑ Human Interface Guidelines, by Apple Computer, Inc. (Addison-Wesley)
❑ Macintosh Programming Secrets, by Scott Knaster (Addison-Wesley)

Macintosh Pascal Programming
$275 Part #B0472LL/A
❑ THINK Pascal v. 3.0 (Symantec)
❑ Just Enough Pascal (Symantec)
❑ Macintosh Pascal Programming Primer; Volume 1, by Dave Mark and Cartwright Reed (Addison-Wesley)
❑ Human Interface Guidelines, by Apple Computer, Inc. (Addison-Wesley)
❑ Macintosh Programming Secrets, by Scott Knaster (Addison-Wesley)

NOTE: AppleLink must be joined through Apple UK from this country. Connect charges are billed separately based on usage.

Aldus Ships PageMaker 4.01

SEATTLE, April 1, 1991 Aldus Corporation today announced shipment of Aldus PageMaker 4.01 for the Macintosh, an update featuring a variety of improvements designed to optimize PageMaker's power and performance as well as address certain

problems found in PageMaker version 4.0.

Improvements to PageMaker 4.0 considerably increase the speed with which the product redraws the screen after closing certain dialog boxes. And enhancements to the way the program loads fonts make the application launch more quickly. This will be more noticeable on systems where 100 or more fonts are installed.

"PageMaker's new capabilities make the product even more powerful," said Mark Craemer, PageMaker product manager. "For example, version 4.01 places text files up to 35 percent faster because PageMaker no longer counts each character it imports."

In addition to the performance gains, PageMaker 4.01 has several new features and enhancements. They include automatic page renumbering across publication files linked as books, an option to condense documents each time they are saved, and the ability to include names in an index automatically.

Introduced in February for the Windows version of PageMaker 4.0, those and other improvements are now available to Macintosh users through this update. PageMaker 4.01 also resolves some anomalies found in version 4.0, such as problems associated with "Bad Table Index" error messages and the "Knockouts" printing option, and PageMaker's tendency to create temporary files on the hard disk when run with Adobe Type Reunion. Further refinements have improved compatibility with Aldus FreeHand 3.0 and the forthcoming Aldus PrePrint 1.5.

Availability

Version 4.01 is being mailed free of charge to all registered owners of PageMaker 4.0 for the Macintosh within two to three weeks. Until the updated disks become part of the shipping product, customers who purchase PageMaker also will receive the free update once they register their software. Documentation for the update is in the form of on-disk release notes. Users can print and read this file for complete information on the enhancements and new features.

Aldus Ships FreeHand 3.0

SEATTLE, March 6, 1991--Aldus Corporation today announced shipment of Aldus FreeHand 3.0, a major new release of its advanced design and illustration program for the Macintosh.

"Aldus FreeHand 3.0 is simply the best design and illustration tool for graphic arts professionals," said Mary Hausladen, Aldus FreeHand product manager. "Customer response to demonstrations of version 3.0 has been very positive, especially to new features that make it more powerful and even easier to use." New features include movable on-screen palettes that list the line and fill colors, graphic styles, and layers that artists and designers use when creating an illustration. "Colors" makes color swatches easily accessible. "Styles" lets users combine colors, lines, fills, and halftone-screen effects to create a specific graphic style that can then be applied to other illustrations again and again. And the "Layers" palette organizes the elements of an illustration to simplify the working process, help the artist focus on or proof parts of an illustration, and improve screen redraw times.

Aldus FreeHand's text controls have been enhanced, too. Users can convert characters to editable outlines, automatically position text around the top and bottom of an ellipse, and create vertical text. And special effects, including zoom, shadow, and outline text, are now displayed as WYSIWYG ("what you see is what you get").

Perfomance has been substantially improved. The program now has "flicker-free" drawing, and it moves faster and offers more precision than before. Screen redraw times are up to five times faster than those in version 2.02. Images print significantly faster, and more reliably. Users can now accurately place, scale, and print objects to 1/10,000 of a PostScript point. They also gain more control over alignment, through a new snap-to-point feature and on-screen layout grids. Aldus FreeHand 3.0's time-saving features include the ability to create transparent holes in objects with one command, and to reblend elements and colors automatically. "Preview" mode shows every element in full color; "Keyline" shows just an outline of the elements for faster screen redraw. And creative experimentation is as easy as ever with "Undo" and "Redo" commands for up to 99 previous steps.

For completing production, Aldus FreeHand has a built-in color separator to produce output for full process-color separations for all parts of an illustration, including imported 32-bit color TIFF images. Users can choose industry-standard PANTONE* Colors for process and spot colors and tinting. They can also create a library of custom colors so they don t have to re-create existing color schemes.

System configuration

The recommended system configuration for Aldus FreeHand 3.0 is a Macintosh SE/30, Macintosh Portable, LC, or Macintosh II series computer; a hard disk; and 4MB of RAM. The minimum configuration is a Macintosh Plus, SE, or Classic, a hard disk, and 2MB of RAM. Aldus FreeHand supports PostScript-language and QuickDraw-compatible output devices for the Macintosh.

Pricing and availability

Aldus FreeHand 3.0 is available in the U.S. and Canada from Aldus dealers for a suggested retail price of $595 (U.S.). The International English version will be available later this month. Other European-language versions will be released in the second quarter. Registered owners of any earlier version can upgrade for $150 by calling Aldus Customer Relations at (206) 628-2320. Greater discounts apply for customers who have a CustomerFirst service contract with Aldus. Registered owners who purchased Aldus FreeHand after January 1, 1991, can upgrade to version 3.0 for $50 with proof of purchase.

NOTE:
Registered users of FreeHand in the UK have already been notified about the UK upgrade. **Ed.**

Metamorphosis 2.0

RICHARDSON, TEXAS - Friday, March 8, 1991 - Altsys Corporation today announced that Metamorphosis Professional version 2.0 will include the ability to convert Apple Macintosh PostScript language and TrueType fonts into PICT outlines for use in drawing software programs. Additionally, Macintosh users can convert their PostScript fonts into TrueType and PC PostScript (for Macintosh or IBM-compatible PCs) and vice-versa. The TrueType fonts that Metamorphosis Professional produces are automatically drawn and hinted using the full capabilities of the TrueType format.

Metamorphosis Professional (known as Meta Pro) is a type conversion utility which creates editable outlines and other computer font formats from existing fonts.

"With Meta Pro's new ability to convert to PICT format, everyone can edit their font outlines in their drawing program of choice," says Peter Mason, Meta Pro's Product Development Manager. "Users of programs like MacDraw and Canvas can now take advantage of the same creative freedom that previously was only available for high end PostScript drawing programs - whether it be to edit actual character outlines, generate text greater than 127 points, or fill and stroke their fonts."

Metamorphosis Professional locates the selected font files, retrieves the outlines, and generates the typefaces in the formats of choice. With a completely new user interface, Meta Pro now provides font conversion in two convenient modes:

The Convert Text mode allows Meta Pro users to convert typed in characters or an entire character set into editable outlines for use in PICT or EPS formats. Meta Pro automatically applies the font's kerning information to the outlines it produces. Either PostScript (Type 1 or Type 3) or TrueType fonts may be used for text conversion.

PICT: Metamorphosis Professional generates PICT files or PICT outlines to the clipboard. These character outlines may then be used in any program which has the ability to read and edit PICTs, such as MacDraw, MacDraw II, Canvas, DeskDraw, MacDraft, Aldus FreeHand, and others.

EPS: Meta Pro generates an Adobe Illustrator 1.1 EPS (encapsulated PostScript) file which can then be read and edited in any PostScript drawing program, such as Aldus FreeHand and Adobe Illustrator.

The Convert Fonts mode allows Metamorphosis Professional users to convert existing fonts into the different typeface and graphic formats. These conversions can be done singly or as a batch process.

Type 1 PostScript: Meta Pro generates automatically hinted Type 1 PostScript fonts, AFM (Adobe Font Metrics) files, and other appropriate font files for: * The Macintosh (Adobe Type Manager compatible) * IBM-compatible PCs, running Adobe Type Manager under Windows 3.0 * NeXT computers

Type 3 PostScript: Meta Pro generates Type 3 PostScript fonts and AFM files for: * The Macintosh * IBM-compatible PCs

TrueType: Meta Pro generates automatically hinted TrueType fonts for: * The Macintosh, running TrueType * IBM-compatible PCs, running TrueType under Windows 3.0

PICT: Meta Pro generates PICT files which can then be used in any Macintosh application which has the ability to read and edit PICTs. For a list of PICT editing programs, please see the listing under Convert Text.

EPS: Meta Pro generates Adobe Illustrator 1.1-style encapsulated PostScript format files which can then be used in any Macintosh application which has the ability to read and edit EPS. For a list of PostScript drawing programs, see the listing under Convert Text.

Fontographer File: Meta Pro generates font databases which can then be used and edited in Altsys' program Fontographer. While Fontographer is also able to convert most PostScript typefaces directly from their font files, Meta Pro can convert TrueType, fonts that exist only in printers' ROMs, and any idiosyncratic fonts which Fontographer may not recognize.

Meta Pro includes the option to convert PostScript fonts directly from the user's computer, as well as from most Adobe PostScript printers where fonts may be installed. This means that no matter where the selected PostScript typefaces are located - on a computer hard disk, on a floppy disk, on a server, on an Adobe PostScript printer hard disk, or burned into printer ROMs - Meta Pro can convert them all. While an Adobe PostScript printer is not necessary for most font conversions, users may find this feature beneficial for converting an entire library of PostScript fonts to PICT or TrueType.

"In addition to the PICT outlines, people have come to us asking whether they will have any fonts to use when TrueType comes out now with Meta Pro, that's no longer a concern," says Peter Mason. "Meta Pro lets Macintosh users easily - and economically - convert all their existing typefaces into high quality TrueType."

Metamorphosis Professional version 2.0 will be available in late March 1991 and has a suggested retail price of $149.00. It is available as an upgrade to registered owners of Metamorphosis for $45.00. Metamorphosis programs purchased after March 1, 1991 will be upgraded at no charge. Metamorphosis Professional works on the Apple Macintosh Plus (or higher) computer with at least 1 Megabyte of RAM.

A free desk accessory version of Meta Pro's text conversion mode will be available to purchasers of both new units and upgrades.

Special Note:
Using Metamorphosis, owners or licensees of commercial fonts may convert any font which they own for their personal use. Since it has been determined that PostScript language fonts can be copyrightable intellectual properties, it is illegal to convert a typeface with Metamorphosis Professional in order to sell, redistribute, or license those generated files whether as outlines or as fonts.

Letter Box

[redacted]

Dear Apple2000,

I am writing on behalf of my Brother who wants any information on music related products by Greengate Synth Company such as keyboards, interfaces, software and sampling microphones. The system which he has seen advertised several years ago ran on an Apple //e. He has an Apple //c and wants to know if they do/did an interface for it. If the products are not manufactured any more please give information about where they could be obtained (from other Apple2000 members?) or whether there is a similar system currently available.

Jonathan Shippam

❑ Greengate Productions died horribly over 3 years ago, which is why I now work at Apple Computer UK! The products you refer to were boards that plugged into the expansion slots in Apple II's. One board was a sound sampler, called the DS:3, that could record real sounds and then play them back, four voices at a time. The playing was done by either hitting keys on the Apple II keyboard or by using a keyboard connected to the sampler card. Sound was taken in and out of the board through an external jack box, at line level. A microphone needed to be pre-amplified before going to this box. The output was on four jack sockets so that the musician could have complete control of the levels of each sound. Alternately the output could be switched to mono.

An optional MIDI card worked alongside the DS:3. This would allow playing of the sound from a MIDI keyboard or sequencer. The board also had VCA's on it, so that the sound became touch sensitive, assuming your MIDI device sent this information.

On the software side, the board came with software to control sampling and trimming of the sound, a loop create program for setting up sounds that could play forever (or until you let go of the key, whichever came first!), a sequencer program and various utilities, including keyboard splitting and sequence building applications.

The cards abilities don't compare well with today's samplers. It was doing 4-voice playback, with 8-bit sampling, usually at 30KHz, whereas typically samplers today are at least 8-voice and 12-bit sampling. At the time though the only other device for the Apple II had an unpronounceable name and could only do lower frequency sampling and only 1 voice playback. There are other dodges too, with cheaper samplers they achieve different pitches by skipping samples, the higher the pitch of playback the higher the distortion in the sound, whereas the DS:3 played back every sample. The DS:3 sound is still somewhat better than the most powerful Macintosh built in sound.

The bad news for your brother, and for IIgs owners, is that the boards would only work with Apple II plus/Europlus or the Apple IIe. The Apple IIc doesn't have the slots for the boards and the timing on the IIgs is quite different to the earlier machines, causing many boards designed for the earlier II's to fail.

Many adverts appear in the music press for DS:3 and DS:4 systems (the DS:4 was an external box that we did that plays 8 voice, 16 bit sounds, MIDI in/out/thru, SMPTE in and out, all controlled by an Apple IIe or IIgs) being sold privately. The prices asked for are low enough, even if the system has a IIe and disk drives thrown in, for the DS:3 to make it worth considering buying one. The DS:4 systems are a lot more expensive, but then it was and still is the best sound sampler ever (I'm slightly biased).

There are a number of Apple2000 members who own Greengate products, and there are occasional adverts in music magazines for DS:3 user groups. If anyone owns a DS:3 or DS:4 and wants a copy of the latest software that we did (some of the DS:4 software has been improved since the death of the company) then write to:-

❑ John Molloy, Auskerry, Hill Terrace, Audley, Staffs ST7 8DD.

Colin Holgate

[redacted]

Dear Ewen,

I wish to be able to improve my word processing and printing by either adding new software or by purchasing some hardware/software to enable me to make copies of IBM programs.

I have the following system:

Apple Macintosh Plus computer with Rodime 45 plus hard disk and external drive 3.5. I print with a Hewlett Packard LaserJet IIp or ImageWriter II.

I use the MacWrite II word processing software with Adobe Type Manager. The Laser printer has been upgraded by one megabyte.

I would like to stress that I am not technically minded and rely on me neighbour to assist with technical jargon etc.

I have a Cairo font and a Mobile font capability which gives me some artwork assistance but I would like to increase these to include such items as a pair of scissors and tennis/squash rackets, animals, etc. etc. Can you advise?

My neighbour has many such fonts but we do not know what we require to transfer his TIF files and a programme to read MS/DOS and IBM PC disks. Any advice or contacts you can supply will be much appreciated.

Ian Wright

❑ I had better explain first how fonts work on the Macintosh first, and especially how outline fonts work with Adobe Type Manager. This will help clarify

how you can and cannot work with various types of fonts.

The Macintosh uses screen fonts to display on screen. These fonts are drawn at a specific size, and are then clustered together into a suitcase file. This is then installed into your system file or mounted using a program like Suitcase. It is usual to have these fonts drawn at 9, 10, 12 and 18 points. If you specify a size outside these standard sizes, the Macintosh will construct a font from the information within the fixed sizes. This means that if you specify a size much larger than already exists, the font will look and print (on the ImageWriter) very jagged.

True outline (Postscript) printing fonts come as a pair. A suitcase containing the screen font and the outline font which is used for the actual printing to Postscript devices. You see the screen font and when you go to print, the outline font is downloaded to the Postscript printer and used to draw the actual printing font. For this reason these printers print a perfect typeface at any size despite it looking jagged on the screen.

Adobe Type Manager simply throws away the screen font and constructs its own screen fonts from the outline font in the System folder. A clean display is given on screen at any size with fonts that ATM can handle. Older Monotype fonts for instance will not work this way and will still look jagged.

The advantage of ATM is that it will give better looking printing fonts on the ImageWriter at any size because it will use the outline font to draw the image rather than using the screen font as you would normally get without ATM.

If your friend has outline Postscript fonts on an IBM computer, it is unlikely he also has the correct Macintosh screen font suitcases. Without a matching suitcase a printing font would not pair up correctly and that font would not print. When you buy a font, you buy the rights to use that font on a single printer, It is therefore illegal to copy fonts from your friends IBM and use them elsewhere.

Your second question linked to this is how you copy from MS-DOS disks. Although you can copy anything from the MS-DOS environment to the Mac, only files that can be used within the Mac system will be of any use. TIFF files should transfer correctly if they are true TIFF files. Text or word-processing files will also transfer and can be used. Application programs of course will not. The normal way to transfer files is to use the Apple File Exchange program included with every System disk set. This will transfer from 3.5 inch MS-DOS disks to the Mac directly. An easier way is to get hold of a copy of PC-Access. This commercial program allows the Mac to see MS-DOS disks without the need of File Exchange.

If the MS-DOS disks are 5.25 inch disks then you will need to hard wire the serial modem port on the Mac to a serial port on the MS-DOS machine and use a communications program each end to transfer the files across. This is a much more complicated way of course to achieve the same end. On a Mac II it is possible to fit an Apple PC drive that can read the disks directly.

Finally, Zapf Dingbats is a font that includes scissors. Animals and tennis rackets are not on any font that I know. You would have two ways of dealing with this. You could construct your own outline font using a program like Fontographer or FontStudio, or a screen font using one of the programs on Disk 018 in the Macintosh library. These could then be used like any other font. Another approach is to use an object drawing program like FreeHand, Illustrator or the object drawing capability of SuperPaint and then insert the subsequent graphic wherever you wanted the image to appear.

Ewen Wannop

[illegible]

Dear Apple 2000

Thanks to the Boffin for the advice and help to the queries I had last year. Unfortunately I have trouble with another program off of the Apple Xtras Disks. I get an error when unpacking the APTZAP.SYSTEM program on the Apple Xtras 2 disk. Could you suggest a remedy or recopy that program for me when you return this disk. I have tried to copy the archive version on to a subdirectory of this disk, but I got an error when doing that too.

I want to archive some old programs that I do not use any more, but do not want to delete. When using the New Shrinkit Utility I get an error message (ProDOS ERROR $49), please cane you suggest what may be causing this. What is the best book to buy for ProDOS information such as error messages etc.

For some time I have thought that if I had a Z80 card in my Apple //e, I would have IBM compatibility. Last month I obtained a second hand Z80 card without a manual or associated software, so I bought from you (Apple 2000) a CP/M 2.23 Systems Master disk and C001 disk from the CP/M P.D.-Library. Alas, I am having difficulties. How do I format a data disk to use on CP/M System and how can I run, if at all, an IBM compatible disk (I have one of those disks you get with P.C.Magazine). Can you also recommend a book about CP/M that would be of use to me.

Richard Shipley

❑ I have examined the APTZAP.SHK file you returned and it is indeed faulty. As requested you have a fresh copy on the return disk.

The error you get when you have tried to archive programs is the VOLUME DIRECTORY FULL error. The top directory of any disk can only hold 51 files. Subdirectories can hold any number of files. Try archiving to a fresh disk or a subdirectory. Books on ProDOS can come expensive. I have printed the ProDOS and GS/OS error codes on the next page. If you want to know more about the workings of ProDOS I would suggest getting hold of a copy of 'Beneath Apple ProDOS' by Don Worth and Pieter Lechner.

You have been badly misled about CP/M and the Z80 card. MSDOS was modelled on CP/M but is in no way compatible with it. You cannot run MSDOS or IBM software on the Z80 under CP/M. Only CP/M programs can be run the disk that come with PC Magazine are MSDOS and cannot be used. The format of the disks is not even compatible with the Apple let alone the programs.

To format a fresh disk under CP/M on an Apple Z80 card you must run the FORMAT program on the system disk by the following command:

```
FORMAT d:
```

where 'd:' is the drive to format. The first of your two drives will be seen as drive 'a:' and the second 'b:'. If you have any more they will be numbered 'c:', 'd:' etc.

To run programs under CP/M you just type the name of the program at the prompt. In general only programs with the suffix .COM will run.

Books on CP/M must be in short supply these days. I cannot think of one offhand that would suit the bill, but you could try contacting Bidmuthin or MGA. I am sure one of those two would have something in their basement.

The Boffin

Apple /// Help Wanted

We have had a request from Mike Day to help him with an Apple ///. Whatever he tries to do he gets the message 'Kernel Not Found'. He was at a loss to know what to do next.

The Apple /// has become such a specialist area these days that we do not have the information to help him directly. I seem to remember at least two members who have these machines but have forgotten who they are. Could they please identify themselves if they would be willing to be added to our list of experts. This way we can direct any questions on the Apple /// without delay.

My own researches show that the Apple /// SOS disk is formatted almost in exactly the same way as a ProDOS disk. Block 1 which is normally empty on a ProDOS disk contains some boot code that searches for a file called SOS.KERNEL. This will be the equivalent of PRODOS on a ProDOS disk. Without this file the disk will not of course boot. This seems to be Mike's problem.

SOS was the forerunner of ProDOS. Although the disk structure is similar there are no subdirectories and the filetypes are different. The Apple /// was conceived of as a business machine. It had an 80 column display as standard and 128k of memory. The architecture of the machine was not the same as the Apple II so normal Apple II programs require a special boot disk to enable them to work. However the Apple /// has the same set of slots as the II but with more head room inside the machine allowed taller cards to be fitted. The interrupt line is non-standard and so many comms programs just will not work even in emulation mode.

The thing that most people notice first about the Apple /// is its sheer weight. The main body of the computer is constructed from a metal casting. Extremely robust but clumsy to move around.

We do not have a copy of the Apple /// master disks to place in our Masters library. If anybody can help with these we would be grateful. We would require either the original disks or a clean copy of them. We will of course return the disks when we have made our own copies.

Meanwhile if anyone can help Mike Day directly please phone him on [illegible]

Ewen Wannop

ProDOS and GS/OS Error Codes

$01 OS	bad call number / dispatcher toolset not found
$02	function not found
$04 OS	bad parameter count
$07 GS/OS	is busy
$10 GS/OS	device not found
$11 GS/OS	bad device number request
$20 GS/OS	invalid request
$21 GS/OS	invalid control or status code
$22 GS/OS	bad call parameter
$23 GS/OS	character device not open
$24 GS/OS	character device already open
$25 OS	interrupt table full
$26 GS/OS	resources not available
$27 OS	I/O error
$28 OS	no device connected
$29 GS/OS	driver is busy
$2B OS	disk write protected
$2C GS/OS	invalid byte count
$2D GS/OS	invalid block address
$2E OS	disk switched
$2F OS	no disk
$40 OS	bad pathname
$42 OS	max number of files already open
$43 OS	bad file reference number
$44 OS	directory not found
$45 OS	volume not found
$46 OS	file not found
$47 OS	duplicate filename
$48 OS	volume full
$49 OS	volume directory full
$4A OS	incompatible file format
$4B OS	unsupported storage type
$4C OS	end of file encountered
$4D OS	position out of range
$4E OS	access not allowed
$4F GS/OS	buffer too small
$50 OS	file is open
$51 OS	directory damaged
$52 OS	unknown volume type
$53 OS	parameter out of range
$54 GS/OS	out of memory
$55 P8	volume control block table full
$56 P8	bad buffer address
$57 OS	duplicate volume name
$5A OS	bad bitmap address (block # too large)
$5B GS/OS	invalid pathnames for ChangePath
$5C GS/OS	not an executable file
$5D GS/OS	Operating System not supported
$5F GS/OS	too many applications on stack
$60 GS/OS	data unavailable
$61 GS/OS	end of directory
$62 GS/OS	invalid FST call class
$63 GS/OS	file doesn't have a resource fork
$64 GS/OS	invalidFSTID
$65 GS/OS	invalid FST operation
$67 GS/OS	devNameErr
$70 GS/OS	resExistsErr

Members' Small Adverts are FREE. Please help us to help you. Send your advertisements to us on a disk, in Mac or Apple II text format. We will return the disk, of course. This saves us time, and avoids errors.

Members' Small Ads

Members Small Adverts are FREE.

We reserve the right to edit and or omit them. They are placed in this Magazine in good faith. Apple2000 holds no responsibility over items advertised, and buyers purchase at their own risk.

WARNING: The sale of copied or pirated software is illegal.

Please ensure that items offered for sale are new or are re-registered.

FOR SALE

Apple 2 gs Programmer's Kit, including:-
Orca/C, C Compiler.
Orca/M, Assembler.
Orca Disassembler.
ToolBox Reference Volumes 1,2 & 3
Hardware Ref, Firmware Ref,
GS/OS Ref Vols 1&2 beta,
All issues of A2 Central
Many issues of Call Apple
plus about another 9" of good programming books!

Includes all ByteWorks vouchers for keeping up to date with their Software upgrades

Complete Kit **£250**

'Phone Jeremy Quinn (days/evenings). [illegible]

FOR SALE

Apple 2gs
Cirtech Memory Card with 3 meg installed
Applied Engineering TransWarp GS Accelerator
Seagate 20 Meg Hard Disk
Apple SCSI Card
Apple 3.5" Disk Drive
Apple 5.25" Disk Drive
Microvitec RGB Monitor
Epson FX80 with parallel & serial interface
Apple Super Serial Card
Plus MUCH Software

Complete System **£1100**

'Phone Jeremy Quinn (days/evenings). [illegible]

FOR SALE

ImageWriter LQ **£485**
ImageWriter II **£240**

The Pair **£695**

Complete with Owners Guides (less than 1000 pages each)

'Phone Nick Brown (6.30-9.30 weekdays & weekends [illegible]
Office hours (pot luck) ..... [illegible]

FOR SALE

1. Apple IIe computer with 64K 80-column card, single Disk II Drive with controller card, BMC green Monitor, games paddles, Apple Parallel Printer Interface card..... **£200**
2. Microvitec RGB Medium Resolution 14" Colour Monitor with card/cables and manual for IIe/II+ **£150**
3. Graphic Mouse (with software and manual) **£35**
4. Apple II+ Videx Videoterm 80 column card **£20**
5. Apple II+ Numeric Keypad/card/cable **£10**
6. Apple II+ Sup'r Terminal 80 column video card **£5**
7. Eicon 8" Disk Drives and controller with 8" version of DOS 3.3 Utility **£20**
8. Omnis 2 Database (unused,as new) **£40**
9. DB Master 4 (unused,as new) **£40**
10. High Technology Information Master Data Base. **£10**
11. Mousedesk 2, software and manual **£10**

All items plus postage.

'Phone Andrew (evenings Mon-Fri) ..... [illegible]

FOR SALE

IIGS SOFTWARE:-
1) LASER FORCE **£15**
2) WORLD TOUR GOLF **£15**
3) HACKER II(OLD ROM) **£10**
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7) GAUNTLET **£15**
8) LIFE AND DEATH **£20**
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11) ART DISK FOR ABOVE **£7**
12) ARKANOID II **£18**
13) PROSEL 16 ..... **£22**
14) MOUSEDESK 2.0 ..... **£10**
15) THE BARD'S TALE I [JUST DISK & P/C MANUAL] **£13**

II SOFTWARE:-
1) KING'S QUEST I,II [NO BOX] ..... **each £13**
2) LEISURE SUIT LARRY [NO BOX] **£13**
3) BLACK CAULDRON [NO BOX] **£13**
4) TIME ZONE (6 DISKS) [DOES NOT WORK ON GS] .. **£25**
5) BATMAN"THE CAPED CRUSADER" **£15**
6) CRANSTON MANOR **£10**
7) THE GAME SHOW **£10**
8) THE COVERTED MIRROR **£15**
9) RAMBO 1ST BLOOD **£10**
10) RAMUP VER.4 ..... **£17**
11) JET **£20**
12) FLIGHT SIM. 2 ..... **£22**
13) MUSIC CONS. SET **£7**
14) SCREENWRITER II (DOS VERSION) [NOT FOR GS] .. **£25**
15) APPLEWORKS VER.3 [ONLY 5.25" DISKS] **£50**
16) APPLEWORKS VER2.0 [JUST 3.5" PROGRAM DISK] . **£25**
17) JAPAN SCENERY [FOR FLIGHT SIM + JET] **£10**
18) HI RES SOCCER **£10**
19) MYSTERY HOUSE **£10**
20) KARATEKA [JUST DISK] **£8**
21) SUB BATTLE SIMULATOR [DEMO] **£2.50**
22) A+ PROGRAM AND [UTILITIES DISK] **£3**
23) BETA DATABASE [JUST DISK] **£5**
24) APPLE PASCAL 1980 ..... **£30**
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HARDWARE:-
1) APPLE IIE (ENHANCED) SYSTEM **£320**
INC.EVERYTHING NEEDED-
SOFTWARE ETC.(RING FOR
DETAILS)V.G.C.

ALL PRICES INCLUDE POSTAGE

'PHONE ANDREW ..... [illegible]

FOR SALE

1) Fingerprint Card with Imagewriter cables **£20**
(for graphics or text screen dumps on Apple II)
2) Thunderscan with original and latest GS software. **£70**
3) Paintworks Plus GS **£10**
4) The Print Shop **£10**
5) Ancient Arto of War at Sea **£10**
6) PFS Graph and PFS Report ..... (the pair) **£10**
7) Large quantity of II books etc. at nominal prices

'Phone Malcom Skipp ..... [illegible]

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Please help us to help you. Send your advertisements to us on a disk, in Mac or Apple II text format. We will return the disk, of course. This saves us time, and avoids errors.

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WARNING: The sale of copied or pirated software is illegal.
Please ensure that items offered for sale are new or are re-registered.

FOR SALE

Surplus Apple IIe Cards (all boxed):-
8 off 80 Col Cards ..... **£15 each** or **£112 the lot**
Plus P&P and VAT

'Phone G. W. Smith .....

FOR SALE

IIc (128K), with external 5.25" drive, monitor with stand and mouse ..... **£400 o.no.**
Epson LX800 printer with serial interface ... **£200 o.n.o.**

'Phone Alex (evenings+w/ends) .....
(office hours) .....

FOR SALE

Apple //e + Apple SilenType printer + many CP/M Softwares and may more extras.
Total price ..... **£250 o.n.o.**

'Phone Jerome Thomas .....

FOR SALE

Rodime 43 Meg SCSI hard drive perfect working order, formatted and partitioned for use with a IIgs but will connect directly to a Mac **£200**
32K memory expansion card for II+ **£20**
Microsoft Z80 card and manuals Vol.I & II **£20**
RGB colour card for II+ or IIe **£15**

'Phone Alex .....

WANTED

For Apple //e, any one of the following:
Apple Super Serial Card,
Applied Engineering Serial Pro,
Serial Grappler.

Must be in good working order and reasonably priced.

'Phone Tony (after 6:30pm) .....

FOR SALE

The Newsroom (complete package) **£15**
Apple Doc (software dev. util. disk + manual) **£10**
Apple Assembly Language Course. (disk + manual) ... **£5**
MicroSoft/AppleSoft Compiler (disk + manual) **£10**
MicroSoft Typing Tutor II (disk only-no manual) **£5**
* High Seas (2 disks + manual) **£10**
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Skyfox (disk + manual) **£10**
A2-FS1 Flight Simulator (disk + manual) **£10**
Apple User Magazine Games Disks (2 disks) **£5**
APPLEPANIC/ZENITH/CHOPLIFTER (3 disks) **£5**

All prices inclusive of p&p. Offers considered for the lot.
* Brand new original packing

'Phone RICHARD .....

FOR SALE

Macintosh software for sale. All originals and include full documentation. MacWrite II, MacDraw II, MacPaint, Claris CAD, Claris Graphics Translator, and Smartform Designer.
Will sell as a set or separately.

'Phone Will (evenings) .....

APDAlog

the information catalogue for Apple Programmers and Developers

The Apple Programmers and Developers Association (APDA) is an organisation run by Apple Computer Inc., to provide information to programmers and developers working with Apple machines.

Subscriptions are accepted from overseas at a rate of $35 (cheaper rates apply for USA, Canada and Mexico).

APDA produces an information catalogue of the various products for sale to members, called *APDAlog*. These products include utilities, books, technical notes, etc.

We recently received a card from APDA which was designed to be given to a friend, allowing the friend to send for a free copy of *APDAlog*. We checked with APDA, and they are quite happy for us to pass on the offer to our members. If you would like to receive a free copy of *APDAlog, just*, send the following information to APDA:

Name:
Company:
Address:
City:
Postal Code:
Country:

Send your request to:-
APDA
Apple Computer, Inc.
20525 Mariani Avenue, M/S 33G
Cupertino, CA 95014-6299
USA

(Please mention that you are a member of Apple2000)

May 1991

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
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June 1991

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July 1991

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AppleSlices

July 1991

A bi-monthly Newsletter from Apple2000 Issue 24

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Annual subscription rates are £30.00 for UK residents, £35.00 for E.E.C. residents and £40.00 for other overseas members.

Apple2000™ is a trading name of BASUG Ltd, a non-profit making independent company limited by guarantee.

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The Editorial team is:

Apple II
Ewen Wannop
Elizabeth Littlewood

Macintosh
Norah Arnold
Irene Flaxman

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

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People engaged in such activities bear sole responsibility for their actions

Apple2000 supports users of all the Apple computers. The **ITT 2020, I, II, II+, //e, //c, //c+, IIgs, IIgs+, ///, Lisa, XL, Mac 128, Mac 512, MacPlus, SE, SE/30, Mac II, IIcx, IIci, IIsi, IIx, IIfx, LC, Macintosh Classic** and **Portable** Contributions and articles for the Apple2000 magazine oe Apple Slices are always welcome. We can handle any disk size or format. Please send to PO Box 3, Liverpool, L21 8PY.

MEMBER MNS MUG NEWS SERVICE Our thanks to the MUG News Service, for contributions to this newsletter

There are a number of ways to contact Apple2000

If you wish to order goods or services from Apple2000, or if you just wish to leave us a message, please call Irene on [illegible] (Ansafone during the day). Alternatively, you can send us a Fax. on [illegible], or write to us at PO Box 3, Liverpool, L21 8PY.

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 will try to help you.

We are very interested in the activities of local user groups. If you have any information which you would like publicised, 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. We'd be especially interested to receive any suggestions about what you would like to see in **your** magazines and newsletters.

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Macintosh Hotline
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Local Groups
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Voice [illegible]

TimeOut & Prosel
Ken Dawson
Voice [illegible]

AppleWorks
John Richey
Voice [illegible]

System 7.0 Update

Dealers now have their CD ROMS with System 7.0. The production packs were not yet available at the time of writing. Those of us who are using the new System have found few problems provided that you run the Compatibility stack first and heed its advice.

This stack is included with the ten disk System 7.0 pack and needs to be run under the new version 2.1 of HyperCard. This new version of HyperCard should also be included in set. The stack will move questionable Init's out of the way into a holding folder and warn you of all programs that it knows should be updated.

I must repeat that if you are not sure what you are doing, please wait till you can get hold of the proper upgrade pack from your dealer. The manuals with this pack will explain all you need to know, not only about installing the new system, but more importantly about how it works and the new commands.

One of our long standing members has offered his services to Apple2000 members who have any questions about upgrading to System 7.0. Please call John Maltby on SAMS Help Line 081 9492229. You must ask for John Maltby by name.

New London Apple II Club

Any body looking for a London Regional Apple II Club? If so don't look further, there is one starting now called APPLE Woz, but it needs your help. We need members to start it and to get it going because with no members there will be no club. So help us to make it a success please.

There are two ways to get in touch with us and to get more information.

By Telephone:
[illegible] (A.J.Webber)
By Post:
[illegible]

There will probably be a small fee (about £3 to £10 for one year) this includes fliers and mail.
Jihad Jaafar and A.J.Webber.

CIS 9600 Baud Access

Dateline: June 20

The growing number of CompuServe members in the United Kingdom can now access the Information Service at 9600 baud.

New modems, which support 300 to 9600 baud and V42 error correction, have been installed on the London CompuServe node. (HST protocol is not supported.)

When connecting through the London node at 9600 baud, the CompuServe $22.50-per-hour connection charge applies. There is no change to the communication surcharges.

Ed: In case you had forgotten the London access number is 071490881. I made a test batch download of three files with a total length of 370k. It took 7'30" for the complete download. This is around 841 cps. The theoretical limit would be 960 cps and at 2400 baud we normally achieve around 220 cps. London callers will notice a significant drop in the time spent online if they regularly download.

Of course for those calling from outside London you must pay the extra phone costs. You should refer to the costings on page 29 of the February issue of Apple2000. I would not recommend calling London if you only intend to browse, but would suggest you make a list of the files you wish to download and then call London for the actual download process. Make sure you have a good clean line or the exercise may well take longer than a local call!

New GGC Service Centre

Cumbrian Computers Ltd have been appointed as an Authorised Service Centre for GCC Technologies Ltd range of computer peripherals.

After intensive training and examination, Cumbrian Computers Ltd is the first (and currently only) Apple Dealer in the UK to have met the exacting requirements set by GCC for provision of service on its products.

As an Authorised Service Centre, Cumbrian Computers Ltd are able to provide maintenance, including warranty repairs, on the full range of GCC disk drives and printers. All major spare parts are kept in stock and staff are trained by GCC to ensure full detailed knowledge of the equipment. Simon Hobson, Managing Director of CCL, said "Our policy is to provide quality goods, backed up by first class service and support, to our customers. Our staff are trained to the highest standards by the equipment manufacturers and software vendors; this means that we understand what we are selling and can ensure that the customer gets what he needs to do his job.

As the countries first GCC Authorised Service Centre we are now able to provide maintenance on the range of peripherals from GCC, as well as on Apple equipment for which we are dealers."

The range of GCC products available from Cumbrian Computers Ltd includes - hard disk drives (with 2 years warranty); printers (from dot matrix to high performance Postscript); and the ColourFast image recorder.

For further information contact :
Bob Williams (Sales) or Simon Hobson (Technical & Maintenance)
Cumbrian Computers Ltd
Coniston House
New Market Street
Ulverston
Cumbria, LA12 7LQ
Tel 0229 581583, Fax 0229 581203,
AppleLink Cumb.Comp

COMPLETE Pascal V2.0

Denver, Colorado:

Complete Technology, Inc. announced the release of COMPLETE Pascal version 2.0 for the Apple II today. This new compiler upgrade will begin shipping on June 5th, 1991.

COMPLETE Pascal 2.0 upgrades many of the features found in Complete Pascal 1.0 (TML Pascal II), with major emphasis placed on the graphic based resource editor. We believe this upgrade makes COMPLETE Pascal the most up to date and full featured Pascal development environment now available for the Apple IIGS computer, states Vince Cooper, president of Complete Technology.

COMPLETE Pascal 2.0's new resource editor now fully supports virtually every resource type defined for the Apple IIGS. New resource importing features make it possible for a user to incorporate resources from various outside sources, as well as to re-use resources created for use in other applications created with the integrated editor.

The new resource editor contains full graphic Icon and Cursor Editors, support for Picture controls, List controls, and several string controls not supported by earlier versions of the software system. All string editors have been rewritten making them simpler for a programmer to create and edit all types of string controls. In particular the Alert/Error String editor now fully supports all available options, including custom window sizes and replacement strings. In addition, COMPLETE Pascal 2.0's resource editor allows most of the newly supported controls to easily be added to a window's content control list without any additional work on the programmer's part.

The Cut and Paste features of the new resource editor have also been considerably enhanced. Programmers may now have multiple resource forks open on the desktop and freely copy resources between them. When pasting a resource or super resource from another file all duplicate control ID numbers are changed in the receiving file so that no items are overwritten. Deleting a super resource such as a window and its associated controls or a menu and its associated strings now causes all dependent controls to also be removed from the file.

A new Import feature added to COMPLETE Pascal 2.0's resource editor now allows a programmer to attach a Code Resource to a program. We have also added a "CallCode" procedure to the CTIUtils library which allows the user to easily call the installed code resource. This new feature now makes it possible to easily take advantage of assembly language subroutines from within a COMPLETE Pascal 2.0 program. The import feature also allows the addition of user created resources, sound resources, and resource types that are as of yet undefined.

A new Hex/Ascii viewer now allows the user to view resource definitions that are not editable using the COMPLETE Pascal resource editor. Clicking on undefined resources in the editor will now automatically bring up the viewer so that a programmer may determine the type and content of the resource.

Several known bugs in both the compiler and the resource editor have also been repaired making COMPLETE Pascal 2.0 the most problem free and enjoyable programming environment produced by Complete Technology. We have also added some new demo programs to the disk showing how to use the printer and other devices from within a Pascal program, as well as how to create and use data files from the generic Pascal file system.

New documentation will be shipped with all upgrade orders. Our manual has been updated to include all of the new features found in Pascal 2.0, and at the request of a large number of product owners is now bound in a large 3-ring binder which easily remains open to the correct page while on your desk. We believe you will find our new manual to be complete and much easier to use.

The COMPLETE Pascal 2.0 upgrade is available for only $34.95 plus $7.00 shipping and handling to those individuals and organizations that elected to become part of Complete Technology's support and update system for TML's former clients. Those that did not elect to become part of the support system may still obtain COMPLETE Pascal 2.0 for $59.95 plus $7.00 shipping and handling. Lab Pack and Network version owners may also upgrade by calling Complete Technology for details.

Orders are being accepted now. Charge cards will be charged 24 hours before shipment, checks will be deposited 5 days before shipment to allow them to clear our bank. We have made changes and hired new people in our shipping department in an effort to speed up our product delivery. All orders are now shipped within 48 hours of receipt. Overnight orders received before 3:00 P.M. are shipped on the same day they are received. Overnight shipping is available for an additional $12.00, and are shipped via Airborne Express.

Contact-

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Denver, Colorado 80222
(303)758-0920

Macintosh 21" Colour Display

Apple Computer UK Ltd today introduced the Apple™ Macintosh™ 21" Colour Display to complement its high-performance Apple Macintosh personal computers - the Macintosh IIsi, IIci and IIfx. The new high-end monitor offers a viewing area the width of the printed area of two A4 pages; high-quality true colour images (up to 16.7 million colours); state-of-the-art ergonomics; and the ability to display any combination of text, graphics, and video applications.

"More people are turning to the Macintosh to create and view large documents or to view many documents at once," said Pamela Schure, product marketing, Apple UK. "The 21" Colour Display meets the exacting needs of our most advanced and sophisticated customers."

"We believe the new monitor will find strong

acceptance among designers, engineers, architects, business professionals and other customers requiring exceptional display quality," she added.

Showcases Complex Applications

As a partner to Apple's high performance Macintosh computers, the 21" monitor displays the entire range of software applications available for the Macintosh. In particular, engineers and architects working with complex three-dimensional design and modeling applications, graphic designers and illustrators using sophisticated drawing and publishing applications, and customers using advanced business applications will appreciate the monitor's two page screen, high level of image quality, and ergonomic features. Additionally, the monitor is well suited to displaying applications that incorporate animation and video—an important attribute as these types of media are increasingly integrated into Macintosh applications.

Full Two-Page Format

Customers who want to display multiple windows simultaneously or work with the printed area of two full pages of text and graphics will be attracted to the 21" Colour Display. It offers three times the viewing area of standard 13" monitors and—with a pixel area of 1152 x 870 and 27 percent more viewing area than typical 19" monitors.

High-Quality Colour Images

The Macintosh 21" Colour Display gives customers the same exceptional image quality and colour performance as Apple's most popular monitor, the Apple High Resolution 13" Colour Monitor. Users involved in any activity—from word processing to scientific modelling - will notice a high degree of definition and vibrant colour not typical of other large screen monitors. Together, its sharp focus and uniform brightness produce high quality colour images.

The 21" display's sharp focus is a result of the tightly spaced pattern of dots (.26mm horizontal by .29mm vertical dot pitch) that make up images on the screen. This dot pattern crisply defines even finely detailed text and illustrations. Because the dots are positioned asymmetrically, annoying moiré patterns common to many large screen monitors are eliminated. The display also offers uniform brightness for consistent image quality and colour integrity across the entire screen. An "auto-deguass" circuit, unique to this monitor, automatically resets the screen when necessary to immediately eliminate any distortion.

Ergonomic Features

In addition to high image quality, the 21" Colour Display provides advanced ergonomic features. A built-in tilt-and-swivel base lets users adjust the display to the most comfortable working angle. ADB™ (Apple Desktop Bus) ports and brightness/contrast controls are built into the front of the display base to give users easy access to both keyboard and mouse connections as well as the ability to easily fine tune their monitor to suit their preferences and surrounding environment. To minimize eyestrain and fatigue, the monitor features a 75-hertz refresh rate (the number of times per second that the image is redrawn on the screen) that ensures a flicker-free, stable image at all times. A built-in anti-glare and anti-static screen reduces reflective light and makes working in a bright room easier. The 21" Colour Display joins Apple's family of Macintosh displays as the highest performance member. The line-up now includes the Macintosh 12" Monochrome Display, the Macintosh 12" RGB Display, the AppleColor™ High-Resolution RGB Monitor (13"), the Apple Macintosh Portrait Display, the Apple Two-Page Monochrome Monitor and the Macintosh 21" Colour Display. Apple now has a complete range of displays to complement every Macintosh personal computer.

System Requirements The Macintosh 21" Colour Monitor can be used with any member of the modular Macintosh family equipped with a compatible video card. Cards that support the monitor include Apple's Macintosh Display Card 4•8 (16 colours), 8•24 (256 colours), 8•24GC (256 colours plus graphics acceleration) and third-party video cards. SuperMac's Spectrum 24/PDQ (from Principal), RasterOp's 24XLI or 24XLTV (from Frontline) support the display up to 24 bits or 16.7 million colours. A video cable, ADB cable and power cord is supplied with the monitor.

Pricing and Availability

The Macintosh 21" Colour Display will be available throughout Apple's European and Pacific Divisions beginning July, 1991. The suggested UK retail price is £3,295 + VAT.

For Customer Information:

Dial 100 and ask for Freefone Apple.
Principal Distribution 081 677 7631,
Frontline Distribution 0256 463344

OVERVIEW

The Apple Macintosh 21" Colour Display offers you the benefits you have come to expect from high quality Apple displays - with a dramatically increased work area. It lets you work with as many colours as your video card will support. The Macintosh 21" Colour Display gives you access to 256 colours simultaneously when used with any Macintosh II system and the Macintosh Display Card 8•24 or 8•24gc. For expanded colour capabilities, with the option of accelerated performance, third party video cards offer up to 16.7 million colours.

The Apple Macintosh 21" Colour Display is ideal if you need a high-performance, large-screen display for graphics, page layout, presentations, design, engineering drawings or even video tasks. You may need to view all of your work at once - or work with many different software programs at the same time. With over three times the workspace of the Apple High-Resolution 13" Colour Monitor, the Macintosh 21" Colour Monitor can offer you a dramatic increase in productivity.

The Apple Macintosh 21" Colour Display offers clear, crisp images - even in finely detailed drawings - across the entire screen area. Even the corners of

the screen display sharp, undistorted images. For colour applications, the high level of brightness at the 6500°K white light standard preferred by publishing professionals allows you to work in complete confidence that you are looking at natural colours.

You will also be reassured by our attention to ergonomic detail. We begin with a high screen refresh rate which minimises flickering and reduces eyestrain. Supporting the monitor, is a high quality tilt-and-swivel base which you can adjust to your preferred angle and orientation. A closer look reveals three Apple DeskTop Bus™ ports in the base which allow you additional flexibility in the placement and reach of a keyboard and mouse. With an Apple Macintosh display you can have complete confidence in the quality of your image - and the quality of your workplace.

FEATURES & BENEFITS

21-inch diagonal screen
Displays two full pages of text and graphics.
1152 horizontal pixels by 870 vertical lines at 79 dots per inch (dpi)
Gives you more room to work by providing a larger screen area than 19" colour displays.
Dot pitch 0.26 mm horizontal by 0.29 mm vertical
Provides clear, sharp images, even in finely detailed drawings. Eliminates distracting moiré patterns.
High brightness uniformity 6500°K (9300°K optional)
Minimises eyestrain by producing uniform images across the screen.
Auto-degaussing circuit
Ensures consistent colour purity and distortion free images without manually resetting the monitor.
Anti-glare screen
Minimises reflective glare so that you can easily work with the screen in bright lighting conditions.
Brightness and contrast controls on front of display
Lets you conveniently adjust the display to suit your preferences and environment.
Tilt-and-swivel base
The display is adjustable to a comfortable working angle.
Three Apple DeskTop Bus (ADB) connectors on the display base (An extra ADB cable is supplied)
Increases flexibility in the placement of a keyboard, mouse or other ADB device. Reduces cable clutter.
75-Hz screen refresh rate
Ensures a flicker-free, stable image, thereby reducing eyestrain and fatigue.

Please note: A CD-ROM with sample colour images and demonstration software is included with every Apple Macintosh 21" Colour Display.

With the Apple Macintosh 21" Colour Display, the number of colours that you can work with depends on the video card that you are using. For example, you can work with 256 colours simultaneously (from a palette of 16.7 million colours) using a Macintosh Display Card 8•24 or8•24gc. Third party monitors will support the Macintosh 21" Colour Display to 16.7 million colours.

Much ergonomic thought has gone into the creation of the Macintosh 21" Colour Display. It begins with the ability to reach the most frequently used controls and adjustments with ease, continues with an adjustable, built in base and doesn't neglect one of the most important elements - the screen image itself.

TECHNICAL SPECIFICATIONS

Picture tube
- 21-in. diagonal, with in-line gun;
- 90° deflection angle;
- Black matrix-type dot screen;
- Phosphor type P22 (aluminised);
- Flat, square faceplate with grey filter glass, 50% nominal light transmission;
- Shadow mask.

Screen resolution
- 1152 horizontal pixels by 870 vertical lines; 79 dots per inch (dpi);
- Dot pitch 0.26 mm by 0.29 mm.

Input signals
- Red, green and blue video signals; TTL separate sync.

User controls
- Back panel:
- Power switch (above power cord);
- Manual degauss (above security lock).
- Front panel:
- Brightness, with detent reference;
- Contrast.

Scanning and refresh rates
- Horizontal scan rate: 68.7 KHz;
- Vertical refresh rate: 75 Hz.

Rise and fall time
- 5 nanoseconds maximum.

Active video display area
- 14.6 in. horizontal by 11.0 in. vertical (371 mm horizontal by 280 mm vertical); remainder of display area is used for border.

Electrical requirements
- Voltage: 85 to 135 volts AC and 170 to 270 volts AC;
- Frequency: 47 to 63 Hz;
- Power: 165 watts maximum.

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

Environmental requirements
- Operating temperature: 10°C to 35°C (50°F to 95°F);
- Operating humidity: 95% maximum, non-condensing;
- Maximum altitude: 3,048 m (10,000 ft.).

Size and weight
- Height: 47.0 cm (18.5 in.);
- Width: 49.8 cm (19.6 in.);

- Depth: 53.0 cm (20.9 in.)
- Weight: 36.2 kg (79.6 lb.).

Safety agency approvals

- Emissions: FCC (class A), VDE (class A), FTZ, CISPR, Swedish MPR magnetic (VLF and ELF);
- Safety: UL, CSA, FDA/DHHS, Scandinavian EMKOs, PTB.

PRODUCT DETAILS

With the Apple Macintosh 21" Colour Display, the number of colours you can work with simultaneously depends on the modular Apple Macintosh model and/or video card you are using. For example, you can work with 256 colours simultaneously (from a palette of more than 16 million) if you have a Macintosh II system equipped with the Macintosh Display Card 8•24 or the Macintosh Display Card 8•24gc. Third party video cards such as the SuperMac 24 PDQ and RasterOps 24XLi video cards increase this capability even further with access to over 16 million colours at an accelerated performance level.

System Requirements

To use the Macintosh 21" Colour Display, you'll need the following:

- A modular Macintosh personal computer equipped with an appropriate video card
- A video cable (supplied with the display).

Apple Announces QuickTime

The first opportunity to see Quicktime in the UK will be at Multimedia '91 at Olympia 2 in London, from June 25th -27th.

Apple Computer, Inc. today announced a new system software architecture for the integration of dynamic media for Apple™ Macintosh™ computers. This software architecture, called QuickTime™, allows third-party developers to integrate dynamic media - such as sound, video and animation - in a consistent, seamless fashion across all applications. Apple made the announcement in conjunction with the Seybold Digital World Conference taking place this week in Beverly Hills, California.

"While most of the personal computer industry uses the term multimedia to refer to a niche class of technologies, applications and specialized computers, Apple's QuickTime breaks out of this niche," said Roger Heinen, vice president of macintosh software architecture. "QuickTime brings the excitement of media integration to all mainstream Macintosh applications, all Macintosh computers, and subsequently to all Macintosh users."

Trevor Wing, marketing director of VideoLogic Ltd., the UK-based leading supplier of multimedia platforms, said: "We welcome the announcement of QuickTime, which clearly demonstrates Apple's leadership in media integration. Apple's carefully engineered scalable approach will result in simple-to-use Multimedia applications. Quicktime's open architecture allows third party developers like ourselves to take full advantage of the facilities provided."

In 1984 Apple introduced Macintosh, bringing unique graphic capabilities to all software applications. With today's announcement of QuickTime, Apple is raising the least-common denominator of application capabilities to include support for dynamic data. Apple expects that any Macintosh application that supports graphics today will soon support dynamic data.

QuickTime provides breakthrough functionality and offers a standard platform for all Macintosh development, enabling developers to not only extend the capabilities of current applications but also create entirely new categories of applications. These new categories include videoconferencing, store-and-forward video mail, low-cost video editing, and dynamic CD-ROM magazines.

The QuickTime architecture consists of four major components: system software, file formats, Apple Compressors, and Human Interface Standards. These components form a software architecture that is extensible, open, and offers cross-platform standards for dynamic data exchange.

System Software QuickTime is the first software extension to System 7, Apple's recently announced upgrade to the Macintosh operating system. To install QuickTime, developers and customers drag the QuickTime extension into their system folder and they can immediately take advantage of these new capabilities. QuickTime enables developers to incorporate dynamic data in a consistent and seamless fashion across applications. The system software component of QuickTime incorporates three new pieces:

Movie Toolbox

Apple uses the term "movie" to denote dynamic data such as sound, video and animation. The Movie Toolbox is a set of system software services that make it easy for developers to incorporate support for movies in their applications.

Image Compression Manager

The Image Compression Manager (ICM) shields applications from the intricacies of individual compression and decompression schemes. The ICM allows software and hardware developers to take advantage of numerous compression schemes—such as DVI, Group 3 fax and MPEG—in their applications, without having to make modifications.

Component Manager

The Component Manager allows external system resources—for example, digitizer cards, VCRs, and system software extensions—to register their capabilities with the Macintosh system software so any application can access these capabilities. In the past, application developers who wanted to take advantage of features from a hardware product such as a digitizer card would have to write custom software for that card and update their software each time the hardware was updated. With QuickTime, the hardware is transparent to the software application and developers can concentrate on the capabilities they would like to offer their users.

File Formats File formats are standard descriptions for a piece of data such as text and graphics. These standard descriptions are supported by most applications, thus allowing users to "cut and paste" or "Publish and Subscribe" data between applications and documents.

Movie

With QuickTime, Apple is introducing a new file format, known as "Movie." Movie refers to all dynamic data, such as a presentation slide show or a dynamic graph of lab data. The Movie file format is a container for this time-based data. Apple is publishing the full specifications for the Movie file format, thus providing developers of cross-platform applications with a standard way of exchanging dynamic data from one computing environment to the next.

PICT Extensions

In addition to introducing the Movie file format, Apple is also extending the PICT file format. With QuickTime, the PICT file format will now support image compression, enabling users to open any compressed still image from within any existing application. The PICT file format will also offer preview support, allowing applications to save a small "thumbnail" of a picture along with the image itself. These thumbnails will allow users to quickly browse through still image libraries in the same way they currently browse through files in a folder.

Apple Compressors

With the first release of QuickTime, Apple will provide a basic set of software compression/ decompression schemes that meet a range of compression needs for still images, animations and video.

Photo Compressor

Apple is the first personal computer company to implement the Joint Photographic Experts Group (JPEG) compression scheme as a standard part of system software. JPEG is a high-quality still image compression scheme that offers compression ratios ranging from 10:1 to 25:1 with no visible picture degradation.

Animation Compressor

Apple's Animation Compressor is based on run-length encoding principles to compress computer-generated sequences from 1 to 32 bits in depth. This compression scheme displays animations—such as a presentation slide show or a dynamic bar chart—at acceptable speeds on all Macintosh computers. In addition, the Animation Compressor allows complex animations—such as a 32-bit scientific visualization data—to be previewed on any Macintosh, thus saving users the time and expense of having to lay the animation to videotape one frame at a time.

Video Compressor

Apple's Video Compressor - developed by Apple - allows digitized video sequences to play back from a hard disk or CD-ROM in real-time with no additional hardware on any Macintosh with a 68020 or higher Motorola processor.

The Video Compressor offers compression ratios ranging from 5:1 to 25:1. The video playback size is typically less than 1/4 of the computer screen size.

Human Interface Standards

Apple is also providing human interface guidelines for dynamic media. These guidelines will ensure ease-of-use and consistency across applications when dealing with dynamic media.

Standard Movie Controller

Apple has designed a standard movie controller as part of QuickTime, providing users with a consistent way to control movies. The movie controller will allow users to: turn sound on and off, play or stop a movie, interactively move to different segments in the movie, step-forward and step-reverse through the movie and provides an indication of where the user is in the movie at all times.

Standard File Dialog Box

With QuickTime, Apple has extended the standard file dialog box to offer developers a preview option. Application developers can now incorporate a dialog box that includes a preview window for still images and movies into their products.

QuickTime 1.0

The first release of QuickTime, QuickTime 1.0, will be available to developers and customers worldwide by the end of 1991. At the initial release, Apple will offer developers the QuickTime CD-ROM, including the QuickTime extension, documentation, picture and movie utilities, HyperCard™ XCMDs, sample code, sample drivers, and sample content. Apple will also provide Macintosh customers with a QuickTime Sampler floppy disk set, including the QuickTime extension, picture, movie and conversion utilities and sample content.

The QuickTime Developer CD-ROM will be available from Apple by the end of 1991. The QuickTime Sampler floppy disk set will be made available worldwide through Apple resellers, and the QuickTime extension will also be available from user groups, and electronic bulletin boards. All pricing will be determined when QuickTime is shipping.

For Customer Information

Dial 100 and ask for Freefone Apple.

New Tools for A/UX

NASHVILLE, Tennessee—June 10, 1991—Apple Computer, Inc. today announced a new suite of development tools that improve the power and flexibility of developing software on A/UX®, Apple's version of the UNIX operating system for the Apple® Macintosh® computer. The new A/UX Developer's Tools product enables developers to create Macintosh, UNIX and X Window System™ software, as well as "hybrid" applications that incorporate Macintosh and UNIX functionality, in one environment.

This new toolset combines the same easy-to-use

development tools currently available for Macintosh, with industry-standard UNIX tools. The announcement was made by Apple's Enterprise Systems Division at the USENIX Technical Conference and Exhibition.

"The A/UX Developer's Tools product offers the best of both Macintosh and UNIX—unique Macintosh development tools and proven UNIX technologies in one product," said Jim Groff, director of marketing for the Enterprise System Division. "These tools make A/UX an ideal platform for developing Macintosh applications and standard UNIX applications that can be deployed on a variety of UNIX-based systems."

A/UX provides users with the benefits of the Macintosh on an industry-standard UNIX platform. A/UX users can run Macintosh, UNIX, and X Window System applications simultaneously within windows on the easy-to-use Macintosh desktop. And, with third party products, users can also run Motif and MS-DOS applications. The A/UX Developer's Tools product enhances A/UX by allowing developers to work conveniently in mixed environments.

Features and Benefits

Macintosh Development Tools

With the new A/UX Developer's Tools product, the same Macintosh development tools which run on the Macintosh operating system are now available on A/UX. These tools include the complete Macintosh Programmers Workshop (MPW®), containing the MPW shell, C compiler, C++ compiler, Object Pascal compiler, assembler, resource editor (ResEdit™), source debugger(SADE®) and assembly language debugger (MacsBug). In addition, an MPW tool which runs UNIX commands from within the MPW shell, gives programmers full access to the power of UNIX, without leaving the integrated MPW environment. The availability of MPW on A/UX lets programmers create Macintosh applications while taking advantage of the rich, UNIX software development environment.

UNIX Development Tools

The A/UX Developer's Tools product includes new tools that improve the UNIX development environment for A/UX. New features include:

- The AT&T System V release 4 ANSI C compiler is the most recent C compiler from Unix System Laboratories (USL). This compiler also includes enhancements for performance optimization and full ANSI standard compliance, as well as extensions to facilitate access to Macintosh Toolbox features.
- C++ Language System, based on release 2.1 of AT&T's C++ Language System (CFRONT), enables object-oriented code development to produce powerful, easily maintainable code.
- The full X Window System development environment contains X11 Release 4, Xlib library,Xtk toolkit, MIT's Athena Widget Set, desktop client applications, and utilities.

Hybrid Tools

The A/UX Developer's Tools product also gives developers the resources to build "hybrid" UNIX and Macintosh applications.

- Now developers can create UNIX applications with the Macintosh look and feel The new ANSI C compiler includes extensions to facilitate calling the Macintosh toolbox from UNIX applications. These applications can use the Macintosh toolbox to display Macintosh menus and windows, creating the appearance of a Macintosh application from a UNIX object file.

In addition, the Developer's Tools product includes the dbx debugger, with extensions to support hybrid applications. This debugger, which is very popular in the UNIX community, allows programmers to analyze their UNIX and UNIX hybrid applications, which access the Macintosh toolbox. This feature simplifies the development of UNIX applications and applications which incorporate the Macintosh user interface.

- Now developers can create Macintosh applications with UNIX functionality The Developer's Tools product includes a source and object library of A/UX System Calls which allow Macintosh applications to take advantage of UNIX services such as UNIX interprocess communications (IPC), input/output, and process control.

In addition, the Developer's Tools product includes source for sample HyperCard® XCMDS built with the UNIX system call library. This allows users to develop HyperCard applications which access UNIX services. A HyperCard stack is included in this product to access UNIX mail.

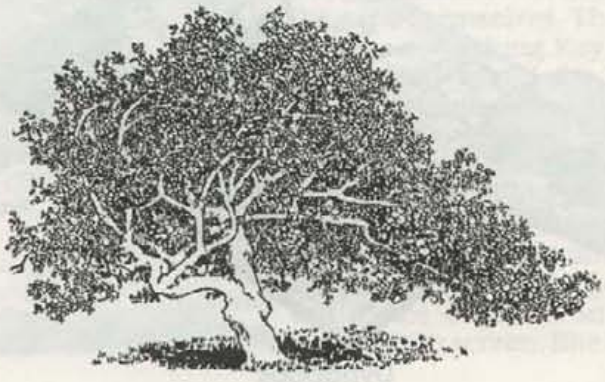
System Requirements

A/UX Developer's Tools requires A/UX 2.0.1 operating system or later. The A/UX operating system with X Window System capabilities requires a Macintosh SE/30 or Macintosh II series computer with at least 5MB of RAM.

Pricing and Availability

The A/UX Developer's Tools product, containing three CD-ROM discs and associated manuals, will be available in early August for $895. To order this product, contact the Apple Programmers and Developers Association (APDA™) at (800) 282-2732 within the U.S.; (800) 637-0029 within Canada; or (408) 562-3910 from locations outside the U.S. or Canada.

Contact: Jackie Promes Apple Computer, Inc. (408) 974-3609



Roots of the Mac

"...and a little child shall lead them."
by Andy Baird

Not only did the Xerox's Learning Research Group give us the familiar mouse/icon/window interface, they also pioneered object-oriented programming.

In the first article of this series *(unfortunately, not available to Apple200)*, we saw how in the early Seventies, Alan Kay, Adele Goldberg and their coworkers at Xerox's Palo Alto Research Center (PARC) looked ahead to the personal computer of the future. Here's what they saw:

"We envision a device as small and portable as possible which could both take in and give out information in quantities approaching that of human sensory systems. Visual output should be, at the least, of higher quality than what can be obtained from newsprint. Audio output should adhere to...high fidelity standards.

"If such a machine is designed in a way that any owner can mould and channel its power to his own needs, then a new kind of medium will have been created."

Notice that last sentence: it starts with a very big "if." Goldberg and Kay were quite confident that continuing, incremental improvements in present-day technology would eventually make possible the hardware they envisioned. But the software of their time was nowhere near to producing a system which would make this powerful hardware useable by anyone, not just a dyed-in-the-wool hacker or computer science major. What was worse, in their opinion, computer software wasn't even evolving in the right direction. A major advance in software was needed, and the Xerox PARC team set out to make it.

We've already seen how the Xerox researchers created a development system, using an experimental Xerox minicomputer, the Star, as their test-bed. Incorporating full-screen graphics and bitmapped text, Douglas Engelbart's recently invented mouse, and the world's first laser printer, the "interim Dynabook," as they called it, pioneered many of the user interface ideas later incorporated into the Mac. Seeking to make the system as widely useable as possible, they recruited children from local schools to be their testers, rather than restricting its use to computer professionals.

Dynabook

Making it useable

But this work, revolutionary as it was, was not nearly enough. Goldberg and Kay wanted much more than a powerful computer with a user-friendly "front end;" they wanted a system which the user could dynamically reconfigure to suit his or her needs:

"...if everyone can have one, is it possible to make the Dynabook generally useful, or will it collapse under the weight of trying to be too many different tools for too many people? The total range of possible users is so great that any attempt to specifically anticipate their needs in the design of the Dynabook would end in a disastrous feature-laden hodgepodge which would not really be suitable for anyone.

"We have taken an entirely different approach to this problem, one which involves the notion of providing many degrees of freedom and a way for any user to communicate his or her own wishes for a specific ability...Thus a great deal of effort has been put into providing both endless possibilities and easy tool-making, through a new medium for communication called Smalltalk."

Working with objects

The Smalltalk language was a big step in a new direction: object-oriented programming, a phrase you've probably heard before. But what exactly does it mean? How was Smalltalk different from the languages which came before it?

In a traditional language like Fortran, a program reads like a recipe: add this, do that, then bake until lightly browned. It's a procedure with a beginning, a middle and an end. Carried out step by step, it will yield exactly the same results every time.

Since the procedure needed to accomplish anything really interesting on a computer in this way typically takes hundreds or even thousands of steps, traditional programming is a forbidding world for the average person. After all, we're not normally in the habit of following such lengthy, detailed, step-by-step instructions—witness the eternal complaint of parents trying to assemble a child's bicycle on Christmas Eve!

What if we could work with objects instead of lists of instructions? We could send messages to them, and they'd respond by acting in known ways — they'd "know" what to do when told to turn left, or show themselves, or draw a line. They could even send messages to each other! Using the anthropomorphic concepts of objects and messages would make things a lot easier to understand for non-computer whizzes.

For example, suppose we know there's an object called a "turtle." Its intelligence is rudimentary — just enough to know how to move and turn on command, drawing a line on the screen as it does so. (Imagine a real turtle crawling across a sheet of paper with a Magic Marker in its beak.) This is an easy concept for anyone to grasp, because it's an analogy of a real-world situation.

We can now say turtle go 50 and send a message to the turtle. The result: it will move 50 units in whatever direction it happens to be facing. Similarly, we can tell it to point to a different direction by

sending it the message turtle turn 90, which will make it turn 90° clockwise. And we can repeat these actions: do 4 (turtle go 50 turn 90) will tell the turtle to draw a square.

So far, this is not very different from Logo, a language which in fact pioneered "turtle graphics." But Smalltalk lets us generalize from this object in a simple, logical way.

Xerox's class system

"Everything in Smalltalk is based on a few simple anthropomorphic metaphors having to do with communication, state and classification. There are no "nouns" and "verbs," but rather objects in process. Every object belongs to a class; every object has memory; objects communicate with each other by sending messages. A class contains the ability to send and reply to messages. Each class has certain capabilities such as drawing pictures, making musical noises, or adding numbers."

Let's take a closer look at that word "class." Classes are collections of objects which share common properties — though those properties may assume various values — and a common definition of the messages they can send and receive.

Adele Goldberg uses people as an example: "... humans are a class because they have common properties like language, tool using, physical appearance and so on. Each individual person is an instance of the class human and has his own meanings for the shared properties; e.g., all humans have the property eye color, but Sam's eyes are blue, Bertha's are green."

Objects in Smalltalk can respond to a variety of messages by doing things in various ways, called methods. For example, the class box may respond to the messages draw, undraw, grow, turn and move. In other words, the box class's definition includes methods for dealing with these messages. If we say "Joe" <- box, we can create a new instance of the class box and name it Joe. Now we can say Joe grow 100 or Joe turn 45, and know that Joe will respond appropriately (for a box). The instance, Joe, has inherited all the characteristics of its class, box.

The HyperTalk connection

Think of what happens when you create a new text field in HyperCard or SuperCard. Although you haven't written a single instruction to define what it is, the new field has characteristics like font, size and style, scroll bar, and so forth. It also knows how to respond to messages like mouse clicks and keystrokes. All these things it inherits from the parent class, text fields, of which it is an instance.

This is no accident, because the HyperTalk and SuperTalk languages are related in many ways to Smalltalk. The major difference is that in Smalltalk, you can create new classes at will, whereas in HyperTalk you have a fixed set of predefined classes: buttons, text fields, cards, backgrounds and stacks. HyperTalk and SuperTalk are said to be hybrid or "pseudo" object-oriented languages; they owe much of their structure and style to Smalltalk.

Thanks to its universal availability, HyperCard has served as an introduction to object-oriented programming concepts for tens of thousands, helping to popularize the ideas which originated at Xerox PARC. Object-oriented programming is starting to catch on in a big way: even conventional languages like C and Pascal have been adapted to offer some object-oriented features, yielding hybrid languages like C++, Objective C and Object Pascal. In addition, Smalltalk-80 and Smalltalk V offer true Smalltalk on the Mac. (Smalltalk-80 is sold by ParcPlace systems, a PARC spinoff headed by Smalltalk pioneer Adele Goldberg.)

Building with software ICs

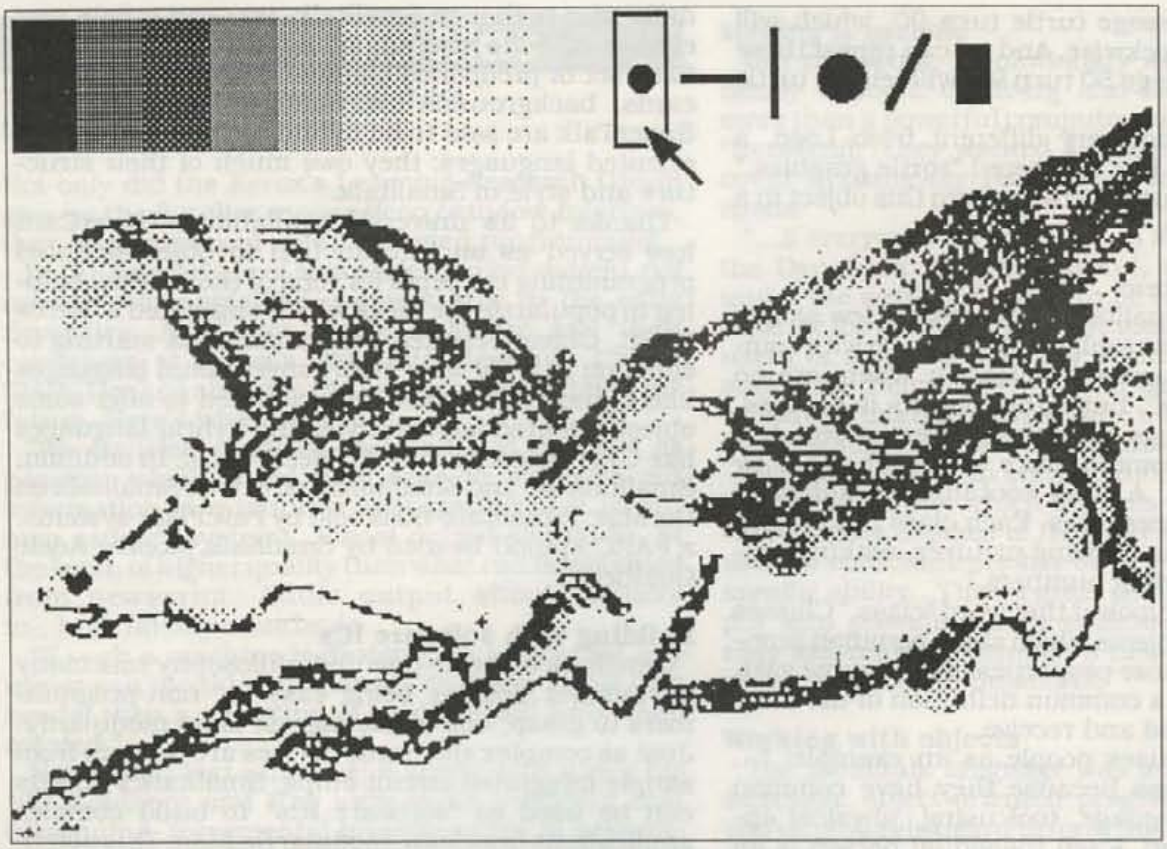
Smalltalk's object-oriented philosophy has many advantages besides being easy for non-programmers to grasp; one of the biggest is its modularity. Just as complex electronic devices are built up from simple integrated circuit chips, Smalltalk's objects can be used as "software ICs" to build complex applications in a clean, modular fashion. This potentially revolutionary concept could fuel the growth of "software foundries" where objects with well-defined properties are created and sold as interchangeable parts to program builders. The result could be an industry-wide change comparable to that which took place when Eli Whitney popularized the interchangeable parts concept in American manufacturing.

But the Xerox researchers were not trying to revolutionize the software industry. Their primary interest was in putting programming power into the hands of individual users, and in this they succeeded spectacularly well.

Marian's Painting System

Children between the ages of five and fifteen were the Dynabook's main users. As the kids worked with the computers, they found flaws or missing pieces in the system. At first, the Learning Research Group programmers created new tools as needed, but soon the kids learned to fill in some of the gaps themselves. The results were everything Kay and Goldberg had hoped for, and more. For example:

"We feel successful in providing a tool building system because one young girl [12-year-old Marian Goldeen], who had never programmed before, decided that a pointing device ought to let her draw on the screen. She then



poration, PARC researchers began to drift away.

Early in the Eighties, PARC alumni who had gone to work for an upstart company named Apple dragged Steve Jobs over to PARC to see all the "neat stuff" there. Inspired by the graphical user interface he saw running on the Star, Jobs hired still more talent away from Xerox and set about building the computer which would bring these ideas to the world: the Macintosh.

built a sketching tool...a Smalltalk class definition for paint brushes. She constantly embellished it with new features, including a menu for brushes selected by pointing. Then she turned her attention to animating stick figure drawings and has demonstrated her first "drawing" system for multiple figures. This girl is currently teaching her own Smalltalk class; her students are seventh-graders from her junior high school."

The revelation that a 12-year-old girl had written paint software eight years before the Mac was created may come as a shock to those who think of Bill Atkinson as the father of the paint program. Of course MacPaint is far more sophisticated than "Marian's painting system," but the fact that a child was able to do what she — and scores of kids like her — did on the Smalltalk system is convincing testimony that the Xerox Learning Research Group met and exceeded their goals.

Benign neglect at PARC

So why is it that we're not all using Xerox personal computers? How did the company whose employees pioneered these ideas, now at the core of the computer industry, fail so completely to use them? That's a story which would fill a book — and indeed has done so — but I'll briefly summarize what happened.

The PARC researchers were all but ignored within Xerox — oh, they got money, but apparently no one took their results seriously enough to build a marketable computer around them. The Xerox Star remained a special-order item, never really sold commercially; if you were a university computer science department and you begged and pleaded, Xerox might hand-build one for you as a favor. Discouraged by the indifference of their parent cor-

The PARC legacy

I don't have to tell you that the Xerox PARC user interface — considerably improved by Apple and others — now dominates the personal computer field. As mentioned, the object-oriented programming concepts championed by Smalltalk have come to fruition in a variety of languages, and common wisdom is that OOP techniques will dominate the programs of the future.

As for Xerox — well, the company finally attempted, last year, to sue Apple over the alleged theft of its user interface, but the case was thrown out of court. Too much time had gone by, said the judge, and if Xerox had thought the ideas were so valuable, then why hadn't they done anything with them all those years?

Inexplicably, Xerox had sown the seeds of the modern personal computer and then walked away, while others feasted on the bounteous harvest.

Author's note: I'd like to thank Alan Kay and Adele Goldberg. Like all Mac users, of course, I owe them a special debt for what they did at PARC, but I am also grateful for their generosity in sending me the Xerox publications Personal Dynamic Media (1975) and Teaching Smalltalk (1977), back when I was just another hobbyist struggling to get a 16K 8080 system going. All quotations and illustrations in this article are taken from these two publications; the more I reread them, the more I marvel at the PARC researchers' prescience.

THINGS I LEARNED THE HARD WAY

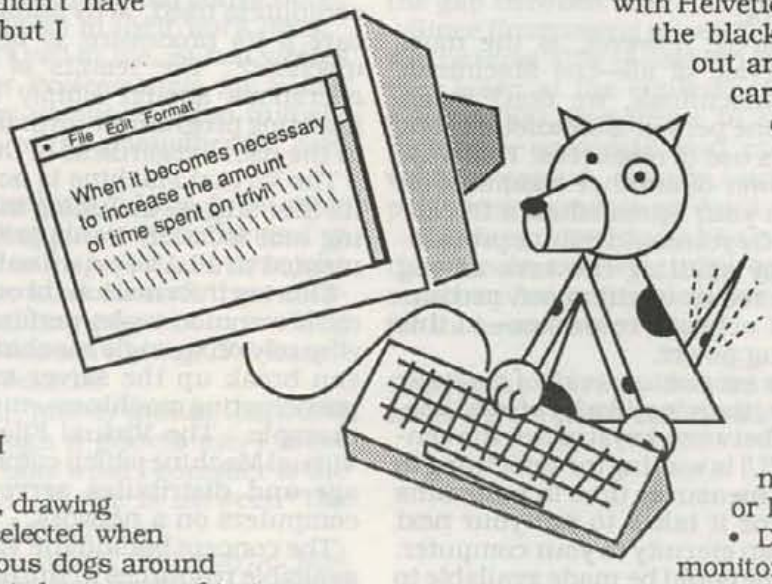
by Terry Wilson

Learning from your mistakes is all very well, but why not learn from someone else's for a change? For instance...

• Don't hold your monitor against your coat if it has metal buttons on it.

My monitor has a little eighth-inch long scratch in the middle to remind me of this rule.

• Don't do self-installations of expensive computer parts without testing them out thoroughly right away. When I saved myself $85 by putting in my HDFD myself, I didn't have any high density disks, but I did have a regular IBM disk. It worked, and an 800K Mac disk worked; I was happy. Several months later I inserted a HD disk for the first time; this time I was not happy. Computer Factory waived the labor charge, but I was stuck for the FDHD ROM cost (more than twice the 85 bucks I saved).



• Don't leave things (text, drawing objects, text boxes, etc.) selected when dogs come around. Anxious dogs around here have wiped out selected passages of text, renamed folders to "\\\\\\\\\\\\\\\\\\\\\\\\", and deleted pieces of drawings with their clumsy paws. 'Undo' only works if they missed the mouse button.

If you don't have a dog, the same caution applies regarding cats and kids; also papers and books that land on the 'enter' key.

• Don't do 'one last thing' before saving. When you think about saving, do it then. Seems like it's always that 'one last thing' that invokes a system error.

• Don't let your Pagemaker documents get too big on you. My colleague was doing one last little thing before Saving As, when the file swelled up and made her Mac pass out. When it came to, Pagemaker couldn't open it—it was too big. (We used Public Folder to get it to my machine, which, with more memory, could open it. Failing that, I guess we could have segmented the file with Stuffit and put it on disks and taken it to somebody else's Mac.)

• Don't let your printer's paper sit out in the open in the humid months. It absorbs moisture. Wet paper doesn't take an image too well. We were printing the final round of a catalog with Helvetica Black headings, and the blacks were faded. We ran out and bought a new toner cartridge, and when that didn't help, we figured out to buy a new ream of paper. That worked.

When it's humid and you aren't in an air-conditioned environment, keep your paper packages closed up as much as possible. This problem isn't too noticable on regular text or light lines, however.

• Don't buy a full page monitor without also buying an accelerator. The only thing worse than doing 11x17 work on a tiny screen is getting the Radius Full Page Display and having to work on a suddenly s-l-o-w machine.

MUG NEWS SERVICE, 1991

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Illustration was done by Andy Baird.

The Shape of Things to Come?

TOKYO, JAPAN, 1991 JUN 10 (NB)
Sony has developed a portable device to locate one's position on the globe. Called the Portable GPS Receiver Pixcess, it weighs only 590 grams (1.3 pounds) and is small enough to carried around. It measures 10 x 17.5 x 3.9 cm. It will be sold at 158,000 yen on July 1.

The gadget locates its current position using two or three space satellites called Navstar, which were launched by the U.S. Defense Department. The device can locate one's latitude, the altitude, and the navigational speed. This device can be used for sailing, fishing, diving, gliders, mountaineering, and hiking. It can also be installed in a car as a navigator.

Sony will also release the GPS core unit, which it says can be hooked into a personal computer through an RS-232C port. This system is expected to appeal to transportation firms. Japanese car makers Mazda and Honda, meanwhile, have developed their own GPS system and have installed it in their cars for low-end consumer use. Pioneer has developed a GPS system with a 4-inch LCD and CD-ROM-based area maps. Consequently, GPS systems are seen as the next technology wave in Japan.

Currently, there are 15 satellites floating in orbit. Nine more satellites are expected to be launched and will go into operation by 1993. With these satellites, one's position should be locatable practically anywhere on the earth.

The Network of the Future is the Virtual Machine

By Eric Gould

The high-performance computing needs of the future will not require faster and more powerful machines. Instead, these needs can be more cost-effectively addressed by better utilization of an already existing investment: personal computers.

As the number of personal computers grows (both Macs and IBM compatibles), so does the percentage linked together on networks. Reports vary, but it would be safe to say that over 50% of Macs in use today are networked, sharing centralized printers, modems, and file servers.

What isn't being shared, however, is the most powerful networked device of all—the Macintosh itself. By sharing a Macintosh, we don't mean several people using it one person after another, but rather the simultaneous use of resources. This way, you could enlist the power of another computer on the network to shorten your spreadsheet's fifteen-minute compute cycle. Or you could reduce processing time further still by splitting the task among three computers. The result is enhanced productivity and better use of network resources—in this case, unused computing power.

Most Macs in an office are not in use all of the time. And even when they are, there's still a lot of idle time. Between thoughts and between keystrokes, the central processing unit (CPU) is waiting for something to do. A computer's CPU measures time in millionths of a second—so the time it takes to put your next thoughts into words is an eternity to your computer.

What if all this idle time could be made available to other network users who need additional processing power. Highly CPU-intensive tasks (recalculating spreadsheets or 3-D graphic rendering, for example) could then proceed much faster. Productivity would increase and a lot of money would be saved, because the extra processing capacity would come from existing hardware.

We believe that in the near future, special networking software will allow individual users to harness or aggregate the power of all the machines on the network. The shared Macs would then become a mainframe-like computing platform or, in essence, one large super-computer. Five Macintosh II's with 2 MB of memory and 20 MBs of hard disk space, would thus be transformed into a Virtual Machine—a "Mac 10" with 10 MB of memory and 100 MBs of disk storage. All without any additional hardware expenditure.

Aside from increased performance, there are other advantages that will make the Virtual Machine an indespensible tool in the future. The benefits for compute-intensive applications such as multi-media would be dramatic. Right now, achieving sufficient processing power for multimedia is an expensive proposition. But a Virtual Machine could provide the needed horsepower and better performance for a fraction of the cost—one Mac could handle sound, another animation, and yet another could process the graphics and text.

To make the Virtual Machine a reality, all that is needed is software that can take advantage of existing computer hardware. As software tends to lag behind hardware by about a full generation, it's not surprising that we are just beginning to realize this potential.

Some strict requirements must be met for the Virtual Machine to be accepted. First, it must be transparent to the user and to the programer. Tasks should be distributed among computers on the network without anyone having to determine exactly where they are processed. This location transparency must be built into the Virtual Machine itself.

Secondly, the addition of new machines to the network should automatically increase the performance of the entire system, for unlimited scalability. The system must therefore be able to adapt to physical changes in the network without the need for reconfiguring the Virtual Machine as it expands.

There should also be no restriction on the type of computers used. Why should a Macintosh program care if its processing is being handled by a DOS machine? The results of the various computing operations should simply be passed back to the initiating program for further processing or for output to the user—regardless of the hardware platform.

The Virtual Machine is not as far off as it sounds. Its first stages, including inherent parallel processing and location transparency, are already implemented in a LAN system called a Virtual File Server.

Sharing information through a server is one of the most common tasks performed by a network. But why rely on a single machine as the server when we can break up the server tasks amongst all of the participating machines—much like our spreadsheet example. The Virtual File Server is a specialized Virtual Machine which combines available disk storage and distributes server operations across all computers on a network.

The concept behind the Virtual Server is to use the available resources in the network to create a single, shared server that is centrally managed and maintained. This shared device appears to both users and applications as a single network server but is actually comprised of multiple CPUs and multiple hard disk volumes.

The Virtual Server opens up the door for distributed applications that will eventually lead us to the Virtual Machine. Distributed applications are much like current applications except they run simultaneously on multiple CPUs, carrying with them the performance benefits of parallel processing. Since input/output (I/O) is the single, largest bottleneck on a computer system, distributed applications require data to be distributed across multiple storage devices. Therefore, the Virtual Server is an integral component of the Virtual Machine.

For the moment, the Virtual Machine lingers just beyond the horizon. Applications like the Virtual Server will hasten its arrival, but we must first show a readiness to adopt distributed technology. Convincing computer users to share the "personal" aspect of the personal computer is not an easy task. But once the industry begins to realize the potential of distributed systems, we are sure to see more distributed applications. And then, the Virtual Machine will become a reality.

MUG NEWS SERVICE 1991

Eric Gould is Vice President of International Business Software, developers and publishers of DataClub,® The Virtual File Server and Windsor™ Network Utilities.

"Ecotechnology" May Merge Profits With Planetary Concerns

As a professional pebble in the shoe of the system, I am often cynical about just why it is that we can put a man on the moon (as they say), but we can't invent a rocket fuel that doesn't blow gargantuan holes in the ozone layer or cook up a new biodegradable substance from our garbage mounds.

One reason is that the technology community has historically blindered itself to the fallout, both literal and figurative, of its work in the global community. Although engineers do have ethics and convictions, they often don't exercise them in their work lives.

If that offends you, don't yell at me. At last week's meeting of the Computer Professionals for Social Responsibility in Berkeley, members cited numerous impressive examples of the phenomenon. And THEY brought it up.

I am trying, in my encroaching old age, to be more balanced and understanding about these things. I've given up hope that people will up and quit their jobs if they don't believe in the kind of work their companies are doing, from military projects to working for firms that still use ozone-shredding CFC-based products to rinse circuit boards.

As they said in Cabaret, "Money makes the world go 'round," and even though it grieves me, I know that most people will not take what I consider is the moral high road when the choice is between "the principle of the thing" and groceries.

That said, I am happy to report that maybe, just maybe, they won't forever have to make that kind of a choice. If the Persian Gulf war doesn't completely skew the nation's long-term priorities, a growing "ecotechnology" movement may actually make it financially rewarding for companies and the engineers who work there to spend time cleaning up and healing the planet from human abuse.

About a year ago, I reported that the "E" in the TED2 conference (Technology, Entertainment, Design) in Monterey should have stood for "Ecology," since environmental concerns colored nearly every presentation.

At dinner one night, a group of TED attendees cooked up the idea for a conference to help get engineers working on ecology. They dubbed it "Ecotech," and it is now a happening deal — set for Nov. 14 to 17, 1991, in Monterey.

Ecotech is focused on bringing together captains of high-tech industry with scientists, environmentalists, public policy makers and investors. In addition to sessions, panels and small forums, a "Marketplace of Ideas" will bring people with products or technologies together with investors and companies who (hopefully) will find ways to produce or market them.

"I think we're creating a new industry," says conference director Bill Rosenzweig. "By putting together a conference like this, a diverse group of thinkers and doers are coming together and shifting focus to new jobs, new businesses and new models for doing business."

Since I am, rather loosely, a member of Ecotech's advisory board, I was able to weasel the latest progress report from Rosenzweig.

So far, 16 speakers have confirmed — including John Rollwagen, chairman of supercomputer company Cray Research; Carl Hodges of the Environmental Research Laboratory, University of Arizona; controversial nanotechnologist Eric Drexler; Amory Lovins, director of the Rocky Mountain Institute; scientist Payson Stevens of InterNetwork, who works extensively on visualization of raw NASA and U.S. Geological Survey data; and Hazel Henderson, an alternative development and environmental policy consultant whose special concern is joint ventures that enhance the environment and reduce the gap between rich and poor.

Since Rosenzweig is looking for 450 attendees who will be most able to develop and/or implement what they learn at the conference, he'll be sending out some 3,000 invitations to select members of the high-tech corporate and entrepreneurial worlds, venture capital, science, environment and public policy communities on April 15.

This is shaping up to be a seminal event. The fact that it even exists is, to my eyes, a shred of hope in an otherwise pretty bleak world. Cross your fingers for its success.

MEMBER MNS MUG NEWS SERVICE

(Computer) Chips with Everything

TOKYO, JAPAN, 1991 MAY 20 (NB)
Hitachi has developed a VHS camcorder with the zooming feature which enlarges an image by 100 times. It is called the "VM-5400A" and will sell for $1,400 in the U.S. this September.

Normally, a zoom lens capable of this kind of image reduction would weigh too much to be practical in the consumer market. Hitachi has solved the problem of weight by using a digital signal processor or a DSP. Hitachi has incorporated digital zooming technology into this camcorder. Even though the actual lens can only magnify an image by 8 times, the image is enlarged up to 100 times by this digital signal processor.

With this digital signal processor, the camcorder is small and lightweight. Also, it consumes less electricity. Hitachi plans to use this digital signal processor in an 8-mm camcorder soon.

According to the Nikkei newspaper, the 3.2 million units of camcorders will be sold this fiscal year. This is an 8 percent increase over the previous term. The 8-mm camcorders have taken over sales from VHS camcorders in Japan, and it is expected that the U.S. market will gradually follow suit.

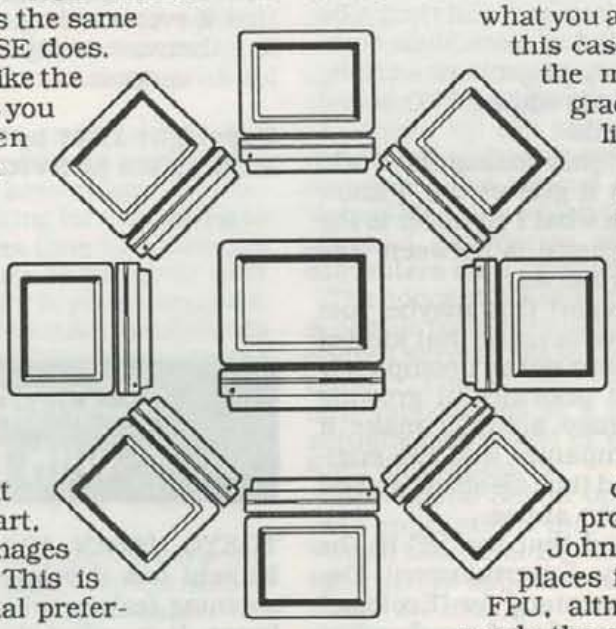
Mac LC Compatibility

by Rob Whitelock
P.O. Box 432, Wiarton, Ontario, Canada, N0H 2T0

Like lots of pre-Mac II owners, I have been giving serious consideration to buying one of the new, lower (not low) priced Macs. As a former Apple IIe owner, with little kids and some old IIe software, the Mac LC seems like the best choice. The prospect of Mac II speed, a colour screen, a SuperDrive and IIe compatibility seemed great to me. Fortunately, I have had a chance to borrow an LC from my employer before parting with my trusty ol' Macintosh SE...

First Impressions

The Mac LC has certainly gotten its fair share of raves from the industry magazines. Both MacUser and MacWorld sing its praises. There is considerable justification for this. The machine is physically appealing, being not a great deal larger than my SE. Its low profile makes it fit nicely on a desk, which cannot be said for the rest of the II series (except the SE/30). The new Apple 12" RGB monitor has outstanding colour, and shows the same physical screen size that my SE does. What I mean by this is that unlike the Apple 13" monitor, which gives you extra room on the screen "around" the standard 9" size of the original (permitting use of an application dock like Black Box 1.5 on the side), the LC's monitor simply makes the small screen image bigger. You gain a bit at the bottom of the screen (3/4"), but that's all. This is great for those that thought the 9" screen too small to look at, despite it's clarity. The down side is that the pixels are a bit farther apart, and some black and gray images tend to seem washed out. This is probably one of those personal preference things.



There are a few things about the LC that I do not like at all. The new keyboard is like a cross between the Apple IIC short-throw keys and the small base IIGS keyboard. Actually, the IIGS keyboard is a great deal better, because it doesn't stand on legs the way the LC keyboard does. Perhaps most annoying is the relocation of certain standard keys. The ESC key, which is usually in the upper left hand corner of a keyboard, has been moved beside the space bar. The tilde key is where the ESC used to be. The control key is moved to where the Caps Lock key used to be, and vice versa. Maybe I'm old fashioned, but I don't like it one bit.

I have only worked with one LC, so this may not be the same on all models, but this thing is LOUD. I bought my SE in the early days, and replaced the squirrel cage fan at the first opportunity. Since I have yet to hear the hard drive in the LC, I must assume that Apple got another load of loud fans.

Perhaps the pickiest point is the sculptured front. If you put disks in with your left hand, you get the strange feeling that you can't push it in far enough, and must move to the right hand side of the disk.

Compatibility

My real purpose in playing with the LC was to see if all of my software will work properly on it. I have a number of children's programs that I bought over the years, and do not want to have to junk them. A quick test of the LC gave me an answer, but not the one that I wanted.

It turns out that the LC is not capable of running any operating system prior to the most current version (6.0.7). Thus any disks you have with earlier versions will not boot. Usually, the LC gives you a Sad Mac message as soon as it tries accessing the disk. What this means is that any copy-protected disks you have that do not have system 6.0.7 on them will not work, unless you can run the program from the Finder after booting up the LC from its internal hard drive. This is particularly problematic for old Macintosh File System (MFS) 400K diskettes. Some of the old programs don't function properly under the Heirarchical File System (HFS), which is what you are using with 800K disks. In this case, you're out of luck, unless the manufacturer offers an upgrade. The results of testing are listed in the chart, opposite.

After the operating system problem, the second potential problem with LC compatibility is its lack of a Floating Point Unit (FPU), which was included in the original Mac II. Certain programs go looking for the FPU once they detect that they are running on the 68020 microprocessor, as the Mac II did. If they don't find it, CRASH! This problem as been alleviated by John Neil's Pseudo FPU, which places in RAM the equivalent of an FPU, although it does not run with nearly the same speed. With programs like Excel and the Works spreadsheet, it is the difference between running and not running, however.

Summary

I found the LC to be a very pleasant computer to work with. It is fast, with approximately a 3X gain in speed over the SE, and the colour monitor is a real delight. If I buy one, I'll definitely be placing an order for a new keyboard at the same time, though. The deciding factor for me, right now, will come from some telephone calls I have to make to see if I can get some of my programs upgraded to work correctly.

GEnie: R.Whitelock America Online: Rob36

Program	MFS/HFS	Works OK?	Comments
Airborne!	MFS	No	Must be booted; will not run from Finder.
Chessmaster 2100	HFS	No	screen display is too large for monitor Top and bottom rows are cut off.
Claris CAD 2.0	HFS	Yes	
Cribbage King/Gin King	HFS	Yes	
Crossword Magic	HFS	Yes	Some screen distortion, but functional
Dark Castle	HFS	???	Should work if system 6.0.7 on boot disk
Dungeon of Doom 5.0	MFS	No	Won't open documents
Early Games (Springboard)	MFS	No	Must be booted; will not run from Finder.
Easy as ABC	MFS	No	Must be booted; will not run from Finder.
Falcon 2.01	HFS	No	It just doesn't work, folks!
FileMaker II	HFS	Yes	
GraphicWorks 1.1	HFS	Yes	
Infocom 400K games	MFS	No	Runs, but disk functions disabled
Infocom 800K games	HFS	Yes	
KidsTime	HFS	Yes	
MacTools Deluxe	HFS	Yes	
Math Blaster Mystery	HFS	Yes	
MicroPhone 1.0	MFS	Yes	
MicroPhone II 2.0	HFS	Yes	
Microsoft Excel 2.2	HFS	Yes	Runs with Pseudo FPU installed
Microsoft Flight Simulator	MFS	No	Must be booted; will not run from Finder.
Microsoft Word 4.0	HFS	Yes	
Microsoft Works 2.00	HFS	Yes, but..	Only when upgraded to Works 2.00e
Pinball Construction Set	MFS	Yes	Will run from the LC Finder
Reader Rabbit 2.0	HFS	No	Reports "Bus Error" when loading
Solitaire Royale	HFS	Yes	
Star Trek: Kobayashi	MFS	Yes	Will run from the LC Finder
SuperPaint 2.0	HFS	Yes	
Talking Math Rabbit 1.0	HFS	Yes	
Wizardry	MFS	Yes	Will run from the LC Finder
Word Munchers	HFS	Yes	
World Builder games	MFS	Yes	

THIS OLD MAC

Q&A Column from Mac Repair Expert Larry Pina

Subj: AppleTalk MultiPlexor

Q The other night at the UGF meeting, you mentioned a multiplexor chip which fails on the AppleTalk option card. I have one I'm having trouble with.

Could you tell me the board location?

A Here is the information you requested, top-secret stuff right out of my new MacBible Repair Guide.

MACHINE: ImageWriter II/LQ AppleTalk Option Card

SYMPTOM: Does not respond to Chooser or Choose Printer DA

SOLUTION: IF pins 23 (L), 24 (L), 25 (P) and 35 (P) of Z8530 on the AppleTalk Option card card are all H, AND pin 18 (L) of 65C02 is P, THEN Check IC-8 74LS245N (Octal Bus Transciever).

Subj: Half icon at startup??

Q This Mac+ has only 1/2 of the disk icon showing on startup. This is when nothing is attached. When a program disk is inserted, all appears to work ok except that at the same spot that the disk icon sat there seems to be a line missing from the screen. When the mouse arrow is moved across the screen from right to leftthe arrow disappears at the location of the missing half of the disk icon??? This happens from top to bottom of the screen. Could this be the BMU1,BMU2 chips, what do these chips do??

A I've seen something similar on two occasions: Once on a 512K Mac that recently had a MacSnap 524 memory board removed and once on a Mac Plus that recently had a Radius FPD upgrade removed. The 512K problem was caused by trace damage (cut traces) near the LS244 at location E12 and the LS244 at location E13 on the logic board. The Mac Plus had a bad 6522 VIA, although all of the logic levels on that chip looked fine.

Subj: Hard Drive Fix #1

Q MACHINE: QA 240 (Quantum 40 mbyte, 5/4 inch hard drive) internal on a Mac II. System software 6.0.5.

SYMPTOM: Would not boot up. Several seconds elapsed before blinking icon appeared with question mark. Hard Drive would not appear even when I tried to boot from a floppy.

A SOLUTION: Tried to install new driver software using 6.0.7 and 6.0.5 Apple HDSC software to no avail. It would not allow me to update the drivers.

I grabbed an old system disk from System 4.0 and used the drivers from that and it worked fine. A dialog box popped up and asked if I was sure I wanted to place an older version of the drivers and I said yes. Drive working fine now.

Apparently the newer version of Apple's drivers does not support the older 5/14 drive.

ONE-ON-ONE INTERVIEW

Interview with Apple Computer, Inc. System 7.0 Product Manager **Steve Goldberg**

Interview conducted by Brad Gibson, Editor of the Tulsa Users of Macintosh Society newsletter, THE TUMS DIGEST. Friday, April 26, 1991.

Brad Gibson: Let's start back at beginning. Who long have you been involved in the development of System 7?

Steve Goldberg: Basically, from the beginning before it was even something called System 7. It was just kinda this project that everybody was working on and it didn't have a number and it didn't have a name. Actually, it did have a name. It was called "Big Bang". And so, I've been involved with it from the beginning.

B: Go back to that point. What was the goal then? Did you have any idea System 7 would become what it is today?

S: I think that if you think back to that time, people had a lot of great ideas of some of the things they wanted to work on. And it was kinda like there was an idea here, and an idea there, and this group has an interesting idea and the networking and communications people had some interesting things they were working on, but no one had really kind of synthesized it into like one big project. And I think some of the things people were really trying to do was constantly keep looking at the experiences users were having with the computer and they wanted to get that as simple as possible. As so, there were a lot of people working and looking at how we can make the Mac easier to use, particularly the finder...the desktop...which is kind of your first experience with the Mac. The other kind of general theme was how can we add things to the system that would really help developers write new and exciting applications. How can we put stuff in there that would really entice them to write great applications. Because really, system software caters to both audiences. You and I use it as end users, but developers use it to write programs on top of. And so, we were really trying to do something for both those audiences. And so, that's probably the best characterization of what some of the thinking was back then.

B: When you say back then, what do you mean?

S: You can kind of identify the beginnings of it back in say May 1988 or so.

B: When you began thinking about system 7, I would assume you and your staff sat down and came up with a list of things you would like to accomplish. Did you accomplish what you wanted to with System 7?

S: I think people are by and large blown away by what has occurred. If you could transport people from 1988 forward to now and have them take a look at what they accomplished, I think they would be incredibly surprised by what has happened. People didn't realize at that point the big step forward that there were taking. It was like, "OK. We're gonna work on a couple of different projects and if we're gonna do another release, maybe we'll call it 6.1," or something like that. But once work really got underway in earnest, people slowly realized that this was really one of the most incredible and dramatic advances in Macintosh. If you've ever been involved in a development project, you can probably appreciate how sometimes these kind of things creep up on you. It's a slow realization of that.

B: I've had a chance to look at a beta of System 7 and I don't have to be a programmer to realize just how massive a project it must have been.

S: Just to give you an idea, the original Macintosh that came out in 1984, there was about 800,000 pages of documentation for programmers that came with it. When HFS came out with the Mac Plus, there was probably an additional 200 pages of programmer documentation. When the Mac II came out, again, a couple of hundred pages. System 7 has, I think, close to 2,000 pages of developer documentation. So I think that gives you an idea of the magnitude of this thing.

B: When you sat down with all these ideas for System 7, did you have any realization that what you were about to embark on something that was going to take you a lot longer to accomplish than you once thought?

S: Well, I'll tell you what I kind of think is going on. I really think there was really two factors. One was that a lot of the stuff in System 7 is there for developers. And once we started talking with developers about what these new technologies are... inter-application communications... data access... and so on... we got a lot of feedback from them. And they said, "Hey, can you please twist things, adjust things, tune them for our needs." So there was a lot of feedback cycles going on there which I think added some to the projects length. The other factor which I think was going on was that there was an incredible number of iterations on the user interface element. And as a matter of fact, you could have seen two years ago a version of the finder for System 7, but it looks a lot different than the one that finally resulted. What happened is there was just countless, literally countless turns of the wheel where each time you would put in a few new twists, and then people would evaluate it and use it and you would try and figure out what worked and didn't work and you would make additional tweaks. And literally they probably went through twenty or thirty different versions of the finder until they felt that it was just right and that was the product we wanted to ship. I am sure in the next couple of months we'll figure out, "Oh gee, we could have done it even better." At some point you have to say this is the product we want to ship, and ship it. Otherwise, you could be working on this till people died.

But those two factors were really behind some of the time that it took, and also just kind of making sure it was really high quality. What we kept hearing from people was "Hey Apple. This is really good stuff. Please spend the time and do it right." I think one of the things that happened back in October when we released a beta disk to developers is we got a lot of pleasant surprise out of developers on the quality of the disk. And they said we expected to be able to stick it in, play with it for a couple of hours. But I think a lot of developers were incredibly surprised about how stable it was and they said, "Oh my gosh! This is great! We can start developing on this." And that was another kind of factor.

B: How difficult was it to listen to all the people complaining about the delay of System 7's release?

S: I don't think it was any different than any other project. Sure, there was a lot of pressure to get it out early. I think there was an equal amount of pressure to do it right. Everybody has there own favourite saying about quality and I know Sheila Brady, who has been the engineering leader on the project has her favourite..." It's better to do it right than do it over." It's worth spending the time.

B: So it was well worth the wait?

S: I think it is. Obviously. But, the true test are going to be the folks out in the marketplace who will be upgrading to it and the developers who will be supporting it with applications. My suspicion is that people are going to flock to 7.0 What we've seen with the customer beta sites is when we give them 7.0, there's no turning back. Everybody finds a couple of features that they like and that they just can't live without, whether it's being able to add things to your Apple menu and have one-click access, or file sharing so that you can share files really easy with other people. I've heard people say "I'll upgrade to System 7, just cause I like the colour icons." Swear to god! It's pretty bizarre. People all have there own reasons why they want to upgrade to System 7. I think everybody will get something different out of System 7. One of things I think you can take a look at over the summer is look at how many people actually do upgrade and how many developers are coming out with new applications. There is just an incredible momentum out in the developer community going on right now. Literally ever single major developer on Macintosh is working on taking specific advantage of 7.0 in their

applications. So, it is pretty much going to be the summer of apps (applications).

B: You talked earlier about beta testers and their involvement with 7.0. Just how much involvement did beta testers have?

S: An absolutely enormous amount.

B: And probably that's why it took a long time to get System 7 to an acceptable level.

S: I couldn't say that was a specific reason. 7.0 has in many respects has set a lot of new firsts for Apple, and in terms of the number of people that have been involved in it, and the quality assurance involved in it. I think another one of the firsts is how much customer involvement there was. We had programs stretching back over almost a year now where customers have been using System 7 for real on real machines and having pretty much a high quality feedback loop into Apple so that we can give them versions, find out what kinds of things are working, what their issues are and make sure those things are addressed in the product. It's been pretty amazing. And the people who have been involved in the customer beta sites have been a pretty big cross section using large businesses, large organizations, a couple of smaller type shops, a lawyer, and a couple of people from user groups. A pretty big cross section.

B: Can you compare this project to any other you have been involved with Apple in terms of complexity?

S: I think it's safe to say that System 7 is the largest software project that's ever been undertaken at Apple. Certainly for Macintosh. There have been about a hundred engineers, an equal number of testers, a bunch of people in my organization, the product marketing organization who have been working on communicating exactly what this product is all about. This is probably the biggest effort that's been undertaken for Macintosh. It's kind of hard to draw a comparison, but it's big.

B: Let's say I have the opportunity to upgrade to System 7, but I'm apprehensive because Apple might not have all the bugs out of System 7. So, I've decided to wait in upgrading for six to ten months. Your response.

S: My response is take a look at the software. If you look at what this is, it's really software that's been in use by 25,000 people to date. It's very, very, very solid code. It's pretty amazing. We could have shipped this months and months ago but we've held on to it to make sure it's right. Yes, there will be bugs. There's no question about it. There's never been a software project on earth that has not shipped with bugs. So, they are there, but we think that in terms of what we ship, it is going to be free of bugs that people are going to be concerned about. My advice... get the software, run the tool which we call "Before You Install" which will take a look at your system and tell you about the compatibility of your applications, which we think is excellent, and you make the decision for yourself. Listen to people around you. I think what you hear will be very positive.

B: So people shouldn't fear that the "sky is going to fall" if they install System 7.

S: Like I said, some 25,000 people are presently using System 7 on a day-to-day basis. That's a lot of people. I think we've managed to achieve a pretty incredible level of compatibility. Because basically System 7 is not a new operating system. System 7 is extensions to the existing operating system. Which means that applications that have been written for the Macintosh will continue to run because we've kept the Macintosh essentially the way it is but added some new features underneath the hood. If you look at the current versions of applications, most of those are going to work just fine. In fact, I can hardly think of any current versions that don't work. Where you will run into some problems is maybe you bought an application a couple of years ago and you might have some compatibility issues with those applications. Most conflicts will be with public domain software. Our advise there is go ahead and install System 7 and then add these things one by one and make sure your System is working by taking out those things that don't work. There is excellent compatibility information that's actually in the product so you can find out exactly what works and doesn't work. So, take a look at your system, take a look at what you have, gauge what that means and make your decision based on what you find.

B: We've heard older Macs shouldn't run System 7. What's the REAL story?

S: System 7 works across all Macintosh computers... from a Plus to a IIfx. All it requires is two megabytes of RAM and a hard drive. If you have one of those CPU's, you can run System 7. If you have a Mac Plus, SE, Classic or Portable... basically a machine using a 68000 microprocessor... System 7 runs with no problem. The only features those users won't get are the virtual memory capabilities, which require the 68030 microprocessor found in machines like the II, cx, ci and fx. With the exception of that, you get all the capabilities of 7.0. You're not losing a single thing. You'll find that System 7 runs at pretty much the same speed as you're used to. So really, if you have a Mac Plus on up, and you have a couple megabytes of RAM, I encourage you to go 7.0. I think you'll get a lot out of it. It brings a lot of immediate value to you. You take it out of the box, install it, and immediately you can start taking advantage of things. It's not like you have to go out and buy new applications to take advantage of things in 7.0. You can immediately take advantage of the new Finder, of True Type fonts, of file sharing and so on.

B: Rumour has it System 7 is a lot larger than the current System... 6.0.7. Right now with my SE and four megabytes of RAM, I often run out of memory with two or three applications running under MultiFinder. Will I have the same problems with 7.0?

S: What you'll find is that on a Mac SE with MultiFinder is that your System is taking up I think around 700 to 800K, depending upon the number of third-party INIT's and other goodies you have loaded in your System. System 7 will take up on a Mac SE approximately another 300 to 400K on your System. So basically, you're adding a fairly marginal amount of extra code to your System, so you're going from about 700K to about one meg or 1100K. You're not adding that much to what you already have. Now if you're having problems already trying to open up very, very large files, that's obviously not going to make it any better. But for most people, I don't think that's going to be a big issue.

B: Let's now talk about features. Go over what you consider to be some of the more important features of 7.0.

S: I really divide the features into two parties. The first set of features we call "Out of Box" features. You install System 7 on your machine and immediately you can start taking advantage of them. Things like True Type fonts, file sharing, etc. I'll come back to those in a second. The other set of features are features which I call "Through Programs" or "Via Programs". Those are features that users will see as application developers revise their applications to take advantage of them. Those would be things like Interapplication Communication (IAC), Data Access and Sound Manager.

Now, let's go back and talk about some of the different individual features. At the top of the list has to be the new Finder. There are so many features of the new Finder, it would take a five-hour conversation to go through them in detail, but let's talk about the top-level features. The first is something called "Balloon Help". Balloon Help is a utility which allows you to point at objects on the screen and a little balloon appear and it tells you what the object is and what it does. You can really quickly learn how your Macintosh works just by pointing at things on the screen to identify them. So you can learn your System much more quickly and you can get a lot more effective use out of it because you will be able to use more of the System than ever before.

Another key Finder feature is the new customizable Apple menu. I think what made desk accessories (DA's) popular historically was the fact that they were

always right there parked under the Apple menu. And users told us, "Hey, why not be able to put programs and documents and folders in there as well. So you can do that now with 7.0. Suppose you use PageMaker all the time. Instead of having to hunt it down on your hard drive, you can put it in the Apple menu, so all you have to do is select it from the Apple menu and boom... you have it. Or suppose you use a To Do list that's stored in More II. You can put the list in your Apple menu and again, you have one click access to it. Another big feature... the Find commands are built in standard. So if you want to find a file, you select Find from the File menu, type in the name of the file you want, and not only will it tell you the whereabouts of the file, it fetches it as well. Open up the folder, select what it found, and away you go. You can find things in much more powerful ways too. You can find all the files you used yesterday, you can find all your MacDraw documents, you can find all the files that are greater than two Megabytes. So it's really very flexible.

And only last thing about the new Finder, is the way you install fonts. Now, you'll drag the printer file to the System Folder and it automatically installs it. Font-DA Mover is a thing of the past!

System 7 also introduces True Type Fonts, which are really simple, very powerful integrated way of doing fonts. With True Type Fonts, there is not a separate screen font and a printer font, there's just one font file. And you drop that in your System Folder and that gives you great looking text both on the screen and on all printers...not just Postscript printers. System 7 ships with about eight to ten True Type fonts including True Type versions of Geneva, Chicago and New York. Postscript fonts will continue to work.

B: And how do I install present Postscript fonts like Adobe fonts? Just drop both the suitcase, which I presently install using Font-DA Mover and the printer driver into the System Folder?

S: That's right. And away you go. And if you think about it, it makes a lot of sense. It's such a natural gesture just to drag it on to the System Folder instead of having this separate utility for doing that.

There's a lot of other features in the Finder. You can type the name of the file to select it, there's a beautiful colour interface if you have a colour Mac, the Finder now has something called "aliases" which allow you to organize your hard drive just the way you want it by creating a substitute icon for an existing file, so you can file the document in two places at the same time if you only have one copy of it.

Let's move on to some other features. File sharing is one of the most important in all of System 7 right behind the Finder. It's really breakthrough technology. What file sharing allows you to do is to share your folders and your files with other people on your AppleTalk network. So basically you can take two Macintoshes, attach them through networking, that can be LocalTalk or Ethernet or TokenRing, whatever, and you can select a folder you want to share and the person on the other machine can put that folder on their desktop and access the files on your hard drive. For example, if you want someone to review a file, if you want to allow them to copy on to their hard drive and so on, it's incredibly easy to do. You don't need a central file server which could cost you $5,000 to $10,000. It's really a simple and easy way for people to start working together much more effectively. File sharing is built-in standard to System 7. Just turn it on and away you go.

B: I would imagine your bigger corporate customers really asked for that.

S: Big customers and small customers. If you think about it, it's the perfect kind of thing for a small office. Let's say you have three to five Macs. Well maybe it doesn't make a lot of sense for me to dedicate one of those to act as a file server. With file sharing, I can get all the benefits of having a file server, but it's built in. I don't have to dedicate a separate machine to it. For large customers it makes a lot of sense because they can have both big centralized file servers for heavy duty use, but also allow people to share files directly. So it makes a lot of sense in both situations. Around here at Apple, we use it all the time. It's just amazing.

B: You're on a roll Steve, so tell us of some of the other new features.

S: The other big area I wanted to mention is this whole area called Interapplication Communications (IAC). And really what we're talking about is allowing programs to work better together. People are pretty familiar with being able to use copy and paste to move information back and forth. It's incredibly useful. We want to take that to the next step. And one of the ways that's happening is through something called "Publish and Subscribe". You can kind of think of those as hot versions of copy and paste. It basically allows you to take part of a document... maybe that's a table of numbers in a spreadsheet, a graphic from MacDraw, a paragraph of text... and say "I want to share this data dynamically with another program." So what you do is select the data just like if you were going to copy it. But instead of copying, there's a new standard command called Publish. When you publish it, you can give it a name and it goes on your hard drive. Then from another program, you give the counter-part command called Subscribe, which is essentially a hot paste. And what that does is allow you to place the data into another document. Then those two documents are now linked together and whenever you change the data in the source document, the other document will automatically be updated. And so as a result, you can much, much better streamline the revision process because the process of updating is completely automatic. And more powerfully, it works across a network. As a result, it allows groups of people to work together on things. So for example, I have an art department working on graphics for my presentation. I can link in the early versions of their work and I have those linked into my presentation. But if they make updates, those will automatically be floated into my presentation. Or you can imagine a group working on putting together a group presentation. Now publish and subscribe requires applications that have been revised specifically to support 7.0 and you'll see a ton of them coming out in May, June and July to support this feature from all the popular software developers. So we think that's going to be a fairly exciting thing particularly how it works across a network. Then, there are other things people will start seeing in May with IAC because it's not just publish and subscribe but other ways of allowing programs to work together. In particular what you'll see are suites of applications starting to do some interesting things together. For example, Mac Project from Claris has a facility where they can have a table of numbers automatically charted even though Mac Project doesn't have a new charting code built in to it. And that's because they use other applications from their family of products in order to do that. Another example is an accounting package that can talk directly to a forms package so that the accounting package has a very, very flexible means of having forms because forms packages are excellent at doing forms. So the forms package will have all the benefits of having an accounting package that they can talk to and send data to. So I see a whole lot applications which will be much better integrated and I think people will be pleasantly surprised by how all this fits together. Particularly the fact that it works across networks. You'll now be able to bring productivity from one machine to a whole group of people.

B: Tell me about virtual memory.

S: Virtual memory allows you to make your Mac think it has more memory than it really does by treating part of your hard disk as an extension of RAM. So what does that mean? Let's say I have a four megabyte Mac II cx. I can make it behave like it has eight megabytes RAM. Why? So I can open up more applications or use a larger application that otherwise I couldn't open. It's more flexibility and more economy because I can buy with four meg of RAM for my average day needs, but on the peak occasions when I need to open up a really large file, I can do it. So it brings greater flexibility. It requires a Mac with a 68030 micro-

processor or an original Mac II that has the PMMU chip installed in it. It's completely transparent. You turn it on and away you go.

The last feature of 7.0 I would mention is that System 7 is a lot more than just the System itself. When you go to buy 7.0, it comes in a kit that's been specifically designed to help you upgrade from six to seven. The kit contains the disks, manuals and so on. But it also contains a couple of interesting things. One is it contains a disk called "Before You Install", which I mentioned briefly before. What it does is teaches you about some of the new aspects of the system so you can take better advantage of them. The other thing is "Compatibility Checker". It scans your hard drive to prepare a personalized compatibility report. For each application, each control panel, each INIT you have installed it will match that up with data that it has in its database. And there's over 750 products from developers that are mentioned in this database. Based on this information, it will produce a report. And for each application it will say "Excel 2.2: Compatible with 7.0", and so on. So it will go through each one and let you know whether it's fully compatible, mostly compatible and so on, so you have a personalized view of what your hard disk looks like.

B: Although System 7 will sell through dealers with manuals, it will be distributed to User Group members without. Would you discourage UG members from not buying the manuals because System 7 is so complex?

S: Yes. Because if you take a look at System 7, there's a lot of stuff in it. It's not like going from System 6.0.3 to 6.0.5 or something like that. There's just an incredible array of new capabilities and features in System 7. I think a lot of people are used to going to an on-line service like CompuServe or going to User Group and getting the disk. We'll say OK, that's fine you can do that. But we really encourage people to go to their Apple dealer and buy the kit. They're pretty aggressively priced and you get the disks and documentation and 90-day toll-free phone upgrade support... something we've never done at Apple. Really what we're trying to do is make those kits tolls which really allow people to successfully upgrade to 7.0. We think there's incredible value in those kits and that's why we're encourage people to buy them.

B: For those people who don't want to buy the kit and obtain 7.0 without manuals through user groups, it's my understanding they can still get phone support?

S: That's correct. If you have a question about System 7 you can call Apple Computer System 7 Experts through a 900-number at $2 a minute and get questions answered. There's also a dial-in automated Q & A system which you can call 24 hours a day and hear the most popular 20 to 30 questions on 7.0. That will be a long distance call to the 408 area code area only. So really there's three ways to get support.

B: Without you releasing any secrets, tell us where Mac System go from 7.0?

S: Basically.Macintosh is now System 7. All of our future plans are based on it. Where are we going? I think a lot of that is going to be in developers' hands. We tried to put a lot of interesting stuff in the Tool Box so that developers have some really powerful tools to fuel their imaginations and entice them to do interesting things. The kinds of things they do? Wow! Hard to know right now, but my guess is there's going to be things in the area of networking. I don't mean things like cables. I mean allowing applications to actually work across networks and be able to allow people to work better together. I think that's an area that's going to be very, very hot. Another area... IAC. I think that's where you're going to see a lot of action over the next year in the developer community. Who can best take advantage of IAC, whether that's allowing applications to be more tightly integrated with other applications, or for example there are some companies out there working on providing scripting. Another area would be allowing access to data sitting on mainframes. There are some improvements that have gone on there to allow applications to have much easier standardized unify access.

System 7 will really cause there to be an incredible amount of development in every single area you can possibly imagine. Graphics software, education software, mainstream productivity software, communications software, everything is going to be moving ahead.

In terms of where we go from here, we have a long laundry list of stuff that we want to work on. We want to continue to simplify the Mac experience and continue to have the Macintosh be the easiest-to-use computer and at the same time, add some new capabilities to the System so you can do more things that you couldn't do before.

B: That's a tough game plan. How can you make things more powerful yet simple?

S: Take a look at 7.0. If you look at 7.0, I think people will realize it makes the Mac easier to use, even easier to use than before, while allowing you to do more things. And the way you do that is to look for things like better consistency. For example, Mac people have a few techniques that are ingrained in their heads. Things like pointing and clicking and how to open things by double-clicking on them. Well, take those few techniques and make them work across more things so that the same way I open an application is the same way I open DA, is the same way I open a Control Panel, is the same way I open a sound, is the same way that I take a look at a font. As a result, the user takes a look at the system and they say it's easier because I don't have to learn more. You can also do things like make it more intuitive. By that I mean change the system to work more like users expect it would. Couple of examples... A lot of people told us, "I have this thing called the desktop and I see disk, and a hard disk and my trash on it. And yet, when I go to open a file, I don't see the same type of representation on the desktop." Take a look at 7.0. When you go to open a file, at the very top level you'll see a new thing called "Desktop". And you'll see your disk and you'll see the trash can at that new level. What we've done is make some changes to make the system work more like how users would expect it to. You do a hundred of those little changes, and then the net result of that is the system becomes more intuitive. It becomes easier to use. Another way to make the system easier to use is you collapse operations that used to take 15 or 20 steps down into one step. We talked about the Font-DA Mover. Take a utility like that, integrate it to the system and allow people to install fonts with one natural and simple gesture...drag it to the System Folder. Again, much greater simplicity. And finally, build additional help into the system. Things like the balloon help feature allow people to get started on Macintosh much quicker and allow them to reach higher heights than they could before.

I don't mean to revert back to System 7, but there's a lot of stuff there. But the net result of all these things... attention to consistency and integration and intuitiveness and so on... is a product that actually is easier to use. You're right, it's paradoxical, but that's what Macintosh is all about.

Where do we go from here? It would be really difficult to speculate right now. But let's put it like this... 7.0 is not the end, it's just another step, albeit a big one on the road of Macintosh.

B: One more question, Steve. Are you and your staff taking a vacation now?

S: I think everybody here is looking for some R&R and looking for a chance to kind of figure out what their lives are all about. People here at the 7.0 team have been working for the last three years anywhere from 12 to 17 hours a day. Saturday and weekends you come in and people are always here. Come in at 3 in the morning and people are here! So, there's a lot of people who are kind of interested in finishing this up and taking it easy for a while. But I'll tell you, I was in a meeting the other day and people are so excited about what this product is all about, they are already starting to plough ahead with ideas of what they want to do next. So I hope they go out and take some rest because everybody needs to recharge there batteries. But people are pretty gungho already. It's very exciting.

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*= WILL NOT WORK ON II+
/= WILL NOT WORK ON GS

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11) Sensible Speller (DOS 3.3 and ProDOS) **£15**
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13) Appleworks 1.3/2.0 ..... **£25**
14) Apple Fortran (requires Apple UCSD Pascal) **£15**
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All prices exclude postage.

'Phone Alan (day) .....
(evening) .....

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Members' Small Ads

Members Small Adverts are FREE. We reserve the right to edit and or omit them. They are placed in this Magazine in good faith. Apple2000 holds no responsibility over items advertised, and buyers purchase at their own risk.

WARNING: The sale of copied or pirated software is illegal.
Please ensure that items offered for sale are new or are re-registered.

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7) Grappler plus parallel interface man & cable **£15**

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Delivery chargeable on first two items.

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FOR SALE

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Buzzbox 300 baud Modem (Any Apple) **£10**
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'Phone P F Wilson ..... [illegible]

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Sizes are large or extra large
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Apple mouse mats
Grey, with the Apple logo printed in six colours
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Order in the usual way, by post (to the P O Box), by telephone [illegible] or by fax [illegible].

Please remember that we can order books for you from a number of publishers. We cannot list all available titles on the order form — so, if you wish to order a book, please make enquiries and we shall try to supply it for you.

If you are looking for a specific publication, try to supply the ISBN reference in addition to the title, as this will make the search easier.

SHOP2000

July 1991

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August 1991

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September 1991

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Apple Slices

September 1991

A bi-monthly Newsletter from Apple2000 Issue 25

OCTOBER

Launch of NEW ?

Annual subscription rates are £30.00 for UK residents, £35.00 for E.E.C. residents and £40.00 for other overseas members.

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The Editorial team is:

Apple II	Macintosh
Ewen Wannop	Norah Arnold
Elizabeth Littlewood	Irene Flaxman

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

Additional thanks to Walter Lewis of Old Roan Press (051-227-4818) for our printing service.

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

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Contributions and articles for the Apple2000 magazine or Apple Slices are always welcome. We can handle any disk size or format. Please send to PO Box 3, Liverpool, L21 8PY.

MEMBER MUG NEWS SERVICE

USER GROUP CONNECTION

Our thanks to the MUG News Service and Aple's User Group Connection, for contributions to this newsletter.

There are a number of ways to contact Apple2000

If you wish to order goods or services from Apple2000, or if you just wish to leave us a message, please call Irene on [illegible] (Ansafone during the day). Alternatively, you can send us a Fax. on [illegible] or write to us at PO Box 3, Liverpool, L21 8PY.

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 will try to help you.

We are very interested in the activities of local user groups. If you have any information which you would like publicised, 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. We'd be especially interested to receive any suggestions about what you would like to see in **your** magazines and newsletters.

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AppleWorks
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KansasFest 1991

This year's A2-Central Summer Conference (often referred to as "KansasFest") had a different flavor than previous years. The conference itself was much the same, but the environment surrounding it provided a different background.

Apple's Announcements

Apple Computer sent fewer engineers this year than last year, when many new products were being discussed. Some of those new projects have been released to developers (the MIDISynth tools) or the general public (HyperCard IIgs, the Apple High-Speed SCSI Interface), and the future of some (Jim Mensch's animation toolset) are not clear at present.

Apple's new product introductions this year again attack several criticisms of the Apple II. System Software 6.0 (due out sometime before the end of this year) adds more speed to the IIgs tools, a remarkably improved Finder, and three new File System Translators (FSTs). Other new products are an improved HyperCard IIgs version 1.1, and for the IIe and IIgs a new Ethernet peripheral card and the anticipated SuperDrive interface card.

System 6.0 will ship on five 800K disks. New programs will include an archiver (effectively a backup program that archives files on any block device medium from floppy disks to hard disks), drivers for Apple's tape drive and flatbed scanner, and the components of Universal Access (sticky keys, mouse keys, CloseView, and the Video Keyboard). The three new FSTs will provide for read-only access to Apple DOS 3.3 and Apple Pascal disk formats and full read and write access for Macintosh HFS volumes.

The HyperCard revisions will add some features for enhanced use of color, better compatibility with Mac HyperCard 2.x (including "xwindows", the ability to create floating windows through HyperTalk) and a media integration stack using a new media control toolset.

The SuperDrive card is the anticipated interface to allow connecting the high-density Apple drive to a IIe or IIgs. In addition to the Apple 3.5's 800K (and rarely used 400K) disk support, with appropriate software the SuperDrive can read and write disks using 1.44 megabyte and 720K formats. The System 6.0 HFS FST will be able to handle the Mac HFS file system on 800K and 1.44 megabyte disk, but no mention was made of support for the MS-DOS 720K and 1.44 megabyte formats.

The Ethernet card adds support for that popular networking protocol to the IIe and IIgs. One of the motivations for the card was that it will have better performance than the current LocalTalk interfaces; the card is expected to be very reasonably priced.

None of these products were available to show in "final" form as of KansasFest, so detailed comments would be speculative. We'll hold off on a complete review until each of these new products is actually shipped, but we think Apple II owners will see a lot of new potential and realization in these offerings.

New Releases Outside of Apple

This year's KansasFest had a two-day Apple Central Expo following it where many Apple II exhibitors displayed their wares. Some new "soon to be released" items were also shown. The following is a sampling of what we saw; we'll save in-depth coverage for future issues. (The A2-Central crew was too busy running its portion of KansasFest to see everything that was going on.)

❑ Accudraw (Kitchen Sink Software, 903 Knebworth Court, Westerville, Ohio 43081, 614-891-2111) is a CAD-type drawing program for IIe, IIc and IIgs (also Laser 128) computers. It supports printing documents to many dot matrix printers (using Beagle Bros' Triple-Dump drivers), even tiling printouts to allow printing a document image several times larger than a single sheet of paper. Kitchen Sink also has many add-ons available , such as symbols for architecture and electronics and project drawings. (If you are interested in CAD software that outputs to a plotter, Kitchen Sink's older CADDRAW program still performs this function.)

❑ Brian Walker of the Learning Performance Corporation, 2850 Metro Drive, Suite 413, Minn. 55425-9880, 612-851-3250 or 800-926-3279, demonstrated LPC's LanPro networking products. An Apple II (a IIe will work as well as a IIgs) is used as the server which you can boot from (a IIgs workstation can even boot into GS/OS) and use as a common repository for GS/OS, ProDOS and DOS 3.3 programs. Additional peripherals including hard disks, floppies, and printers can be shared. LPC's EasyShare IIx customizable menuing system was also demonstrated in combination with LanPro.

❑ Phil Shapiro of Balloons Software was demonstrating some of his award-winning software, but when we visited he actually used most of his time to show us a product other than his own: StoryWorks from Teacher's Idea and Information Exchange (TI & IE), P.O. Box 6229, Lincoln, Neb. 68506, 402-483-6987. StoryWorks is a program that allows you to use AppleWorks to create quizzes and tutorials with menus, hypertext linkages between words, and sound effects. If you don't have an 80-column card or like large text, StoryWorks can format your text to use a 30-column mode on the graphics screen. StoryWorks is $49.95 from TI & IE and will run on any Apple II with at least 64K and AppleSoft in ROM.

❑ Integer BASIC is back thanks to the Byte Works (4700 Irving Blvd. N.W., Suite 207, Albuquerque, N.M. 87114, 505-898-8183) as the ORCA/Integer BASIC package. The package includes a compiler that runs under the ORCA/M IIgs shell and creates GS/OS executable files from Integer BASIC (ASCII text) source code. The compiled code uses the IIgs super high-resolution screen to simulate the older Apple II graphics modes used by Integer BASIC. Of course, quirks such as embedded machine language and some types of hardware manipulation (PEEKs and POKEs) are not supported, but the compiler does give the first Integer BASIC support we're aware of under the ProDOS (well, GS/OS) disk format. If all this seems too weird to you, consider that the real intent of this project was to provide a tutorial in

compiler writing, and all source code (in a mixture of ORCA/Pascal and assembly language) for the compiler is provided. It was definitely the Apple II hacker hit of the show. If you order before September 30, 1991, Byte Works will throw in a free disk of Integer BASIC Classics culled from the public domain.

❑ DreamWorld (P.O Box 830, Iowa City, Iowa 52244-0830, 319-338-6491) was demonstrating a more complete version of its IIgs DreamPaint ($99.95) software that was announced last year (see "Miscellanea", October 1990). Steven Chiang showed us the draft copy of the manual and hopes to have the product shipping within a few weeks. In addition to many standard paint features, DreamPaint allows editing graphics using 256 and 3200 color modes.

❑ Micol Systems (9 Lynch Road, Toronto, Ont. M2J 2V6, Canada) was demonstrating their revised version of Micol Advanced BASIC for the IIe and IIc which now includes windowing routines that can be used to enhance the user interface. Also at the Micol booth Vladimir Federov was demonstrating the Liberty Card, an interface designed to allow connecting MS-DOS drives to a IIe or IIgs for use as inexpensive ProDOS storage and for transferring data files to and from MS-DOS disks.

❑ Roger Wagner's booth was doing its usual brisk business with demonstrations of HyperStudio features. Roger has a new "Neat HyperStuff" catalog that showcases several products from various companies; it's one of Roger's ways of making sure good products are publicized.

❑ Procyon, Inc., 1005 N. Kingshighway, Suite 309, Cape Giradeau, Mo. 63701, 314-334-7078 was demonstrating a Unix-like multitasking development environment for the IIgs (still in development).

❑ A new line of new internal hard disks for the IIgs was being shown by Econ Technologies, P.O. Box 195356, Winter Springs, Fla. 32719, 407-365-4209. The drives replace the internal power supply of the IIgs and unlike some internal drives use your standard SCSI interface. In fact, if you want to add your own hard disk mechanism, Econ sells just the power supply and drive housing for $299. Prices go up to $1099 for a 200 megabyte subsystem. (These prices do not include a SCSI interface card to connect the drive to your computer.)

❑ Zip Technology (5602 W. Slauson Avenue, Suite #190, Culver City, Calif. 90230, 213-337-1313) representative David Fein showed up for the entire conference and was offering older version 1.01 Zip GSX to developers at drastically reduced prices during the colleges and conference sessions. The offer was also made to upgrade these cards to the current version 1.02 for an additional fee. The primary limitations of the 1.01 are compatibility problems with some hardware configurations and the inability to upgrade to versions with speeds over 8 MHz, but the price was very attractive for a basic accelerator.

❑ An eclectic but interesting hardware product was an Apple II (II Plus, IIe or IIgs) peripheral card that provides high-speed (8 millisecond conversion time) 12-bit analog-to-digital conversions (software selectable from 8 analog inputs), a 12-bit digital-to-analog converter, and bitwise (digital) input and output. This device can be used to interface various sensors to the Apple II; one use being demonstrated was a real-time oscilloscope simulation. The Advanced Interfacing Board II is $260 from Sunset Laboratory, 2017 19th Avenue, Forest Grove, Ore. 97116, 503-357-5151.

❑ The Big Red Computer Club (423 Norfolk Avenue, Norfolk, Neb. 68701-5234, 402-379-4680) has announced they will be picking up distribution of Electronic Arts's IIe and IIgs software titles; including The Immortal, Keef the Thief, The Bard's Tale, Instant Synthesizer, Chuck Yeager's Advanced Flight Trainer, and Skate or Die.

Dennis J Domms

Report courtesy of A2-Central. See Apple2000 magazine for further details of the A2-Central Newsletter.

CIS UK Enhancements

A number of exciting new products have been recently introduced specifically for our UK members:

European Company Library (Go EUROLIB)

In response to many requests for more UK company information we are pleased to announce the release of our new European company library which contains selected financial information on more than 2 million European companies (different databases carry different surcharges; for more information enter GO EUROLIB). Information is available from leading business databases including :

❑ D&B Dun's Market Identifiers
❑ CC
❑ Infocheck
❑ Key British Enterprises
❑ Kompass
❑ Hoppenstedt (Austria, Benelux and Germany)
❑ CreditReform

9600 Baud Access in London

Owners of 9600 baud modems can now connect at 9600 baud via the CompuServe node in London (081 490 8881). When connecting at 9600 baud the standard CompuServe 9600 baud connection charge of $22.50/hr applies -communications surcharges are unaffected (for more information enter GO EURORATES at any ! prompt).

UK Computing Forum (Go UKFORUM)

The "UK Computing Forum" is where you should go to find out about software written in the UK or about UK specific hardware (such as the Amstrad). There is also a growing library of UK produced software and lively discussions of UK social events and computer shows. To access the forum enter GO UKFORUM at any ! prompt.

Shareware Marketing Forum (Go UKSHARE)

Whether you are a software developer or have just registered for your first shareware program, you'll find UKshare's libraries and message boards are the place to find out everything you need to know about shareware. Operated by Shareware Publishing (Europe's leading shareware publisher) this forum provides objective advice, technical support, upgrades, and the latest product reviews. To access the forum enter GO UKSHARE at any ! prompt.

For further details contact:
Martin Turner UK Product Marketing Manager

PS: Special Offer for non-CIM users!

If you are not yet using the "CompuServe Information Manager" (CIM) then we suggest you give it a try. CIM is a communications software package developed by CompuServe for members using PCs and Macs and it's practically FREE! - UK members can order CIM for the special price of just £9.95 (incl. P&P !); each CIM kit includes a full 290+ page user guide and $15 usage credit!

This special offer is ONLY available at this special price by phoning Customer Services on FREEPHONE 0800 289 378 - (offer closed 31/8/91 but may still be available at this price).

Apple's New Macs

Rumours abound in California, as Apple are about to announce their new products on 21st October at Comdex. There follows a brief synopsis of the industry's expectations, and an indication of the anticipated price structure — in US$, of course (wonder how they'll compare with the UK pricing?).

The first set of (expected) new offerings are three notebook Macintoshes — the Mac PowerBook 100, 140 and 170 — along with a collection of optional accessories. All three models will include AppleTalk Remote Access, which will let users dial into AppleTalk networks.

The 68000-based PowerBook 100 has an internal hard disk, but no internal floppy drive — however, an external floppy drive will also be available. The 68030-based PowerBook 140 and 170 have internal floppy and hard disk drives. The PowerBook 170 also comes with an internal fax/data modem. None of these models has built-in support for external displays, but third parties are reputed to be working on this. Optional accessories include 2Mb and 4Mb RAM expansion kits, an external battery charger, and a SCSI cable and adapter for accessing the PowerBook's hard disk from a desktop Mac.

The next offering is expected to be the 68030-based Classic II, to provide an upgrade path for current Classic users, with improved performance — but virtually no expansion.

The final expectation is a pair of 68040-based machines, called the Mac Quadra. Both models, the 700 and the 900, include a new SCSI controller, said to be roughly twice as fast as the current controller.

The Mac Quadras have NuBus 90 slots, which can transfer data twice as fast as current performance, but this does not give rise to an equivalent increase in the average running speed. The Mac Quadra 900 is the first Macintosh tower system, so it will be interesting to see where it fits in the market.

The new Macs all need System 7.0.1, which will be installed before delivery.

Apple should make simultaneous announcements around the world. As ever, it will be interesting to see how the US dollar prices compare with the UK sterling equivalents, when the details become available officially and we don't have to rely on rumours.

Name (Configuration)	Estimated Prices
Classic (1/floppy)	$999
Classic (2/40)	$1,499
Classic II* (2/40)	$1,900
Classic II* (4/80)	$2,400
LC (2/40)	$2,499
LC (4/80)	$2,999
IIsi (3/40)	$3,769
IIsi (5/80)	$4,569
IIci (5/floppy)	$5,269
IIci (5/80)	$5,969
IIci (5/160)	$6,569
IIfx (4/floppy)	$7,369
IIfx (4/80)	$8,069
IIfx (4/160)	$8,669
Quadra 700* (4/floppy)	$5,800
Quadra 700* (4/80)	$6,500
Quadra 700* (4/160)	$7,000
Quadra 900* (4/floppy)	$7,500
Quadra 900* (4/160)	$8,700
PowerBook 100* (2/20)	$2,300
PowerBook 100* (2/20 + ext. floppy)	$2,500
PowerBook 140* (2/20)	$2,900
PowerBook 140* (2/40)	$3,200
PowerBook 170* (4/40)	$4,600

* = New products. Prices estimated.

U.S. Recession must be byting

If you have ever wondered what happens to all the old stocks held by Apple, there's a clue in the latest gimmick to hit the U.S. computer market.

Apple Computer Inc. is giving rebates to purchasers of certain Apple equipment, if they buy before January 1992. Rebates range between $125 and $800. What's more they can also enjoy 90 days free credit, if they pay with an Apple credit card.

The reason? They need to reduce stocks before the release of new machines (due for shipping after the anticpated announcement on 21st October 1991).

To Off or Not to Off, That Is the Question

Over the years, there has been much controversy about whether it is better to turn your computer off when it isn't used or leave it on continuously. This is not a simple question to answer, and as it turns out there are many different, but valid, answers. For the purposes of this discussion, we'll assume that "better" means that the computer will last longer.

The simple answer to this question is: It's usually best to turn the computer off

whenever it won't be used for 8 hours or more. So if you use your computer frequently during the day, as many do at work, turn it on in the morning and off at night. If you use your computer less (a home computer for example), then it is even more advantageous to turn your machine off. Besides, in both cases you'll save energy.

Now if you'd like a more complete answer, or would like to know the details behind the above conclusion, please read on.

The following information was distilled from numerous conversations with engineers at Apple Computer, Conner Peripherals, and Quantum Corporation. The conclusions reached are not necessarily those of any of these companies or the engineers, but they are an attempt to derive information which the average computer user should find helpful.

To maximize the total number of successful operational hours for any computer device (i.e., maximize power-on hours), all computer devices (hard disks, CPUs, monitors, other electronics) should be turned on and left on forever until they fail. The number of power-on hours is what most engineers measure, and so they'll tell you to leave your computer on all the time to maximize them.

But this does not necessarily mean that you, the user, will maximize the amount of productive time you get out of the computer. For instance, during the night the computer may be on but it may not be accomplishing anything for the user. Let's call this productive time the user's perceived system life span. It's the number of operational hours that the computer user actually uses. Users are probably more interested in maximizing their computer's perceived system life span than the actual number of successful operational hours.

Regardless of the wear caused by turning your computer on and off, there are other factors that can have a much greater impact on your computer's life expectancy. It is very important to treat your computer with care. Although not the focus of this article, here is a brief list of common sense do's and don'ts that will help ensure a lasting and worthwhile relationship between and your computer:

1 Keep it in a dust/dirt/smoke-free environment.
2 Don't spill things on it. Keep it dry.
3 Use a surge protector.
4 Don't drop it or jar it severely.
5 Use a screen saver to prevent monitor burn-in.
6 Keep it cool (room temperature) and out of the sun.
7 Don't block its ventilation slots.
8 Back up your files — all systems are guaranteed to fail sooner or later.

Before we go on, be reminded that reliability is a probabilistic science. Yes, probability and statistics can be tricky, but they are necessary for determining when a computer is likely to fail. Manufacturers often use the term MTBF (Mean Time Between Failures) as an indication of reliability. This means that, given a large number of computers, the average one will run X hours before a failure occurs — X being its MTBF. This does not mean that yours or mine will last X hours. It only means that ours will probably last about that long. There is no way that a manufacturer can determine exactly how long any given computer will last, just as it is not possible to determine exactly how long you will live, assuming normal circumstances.

Manufacturing defects tend to be the single largest cause of computer hardware failure. Manufacturers cannot guarantee that every device they make is perfect. However, some are better at minimizing the number of problems that occur. Apple Computer, for instance, does an amazing amount of testing on all of its computers and peripherals, as well as keeping close track of failure rates in the field. Most well-known manufacturers do a good job in terms of design and manufacturing. You will nearly always be better off, in terms of reliability, if you buy equipment from reputable manufacturers. This cannot be stressed enough.

The whole point of buying a computer is to accomplish useful work. Be careful of the trade-off between cost and the amount of useful work you will be able to get from your computer. The same goes for disk size, CPU speed, number of colours, etc. These don't necessarily mean that you will maximize the utility you get from your computer. Yes, there are worthwhile bargains out there, but you get what you pay for.

Many believe that turning a computer system on is the primary reason for failure, because most systems fail at this time. This is not necessarily true. It's just that this is the most likely time for weaknesses to become apparent, because this is when the computer system undergoes its greatest stress.

Turning your computer on and off regularly (as prescribed above) may be even more advantageous than it first appears, especially in the first year of ownership. The stress of turning a machine on and off makes it more likely that any manufacturing defects will become apparent sooner rather than later — and hopefully before the warranty runs out.

Assuming the average benign environment, the most significant causes of wear, in rough order from most to least, are:

1 Heat
2 Power cycling (turning a machine on/off)
3 Power-on hours
4 Humidity/salt/airborne pollutants
5 Age (yes, some components incur wear even when not used)

Heat is a problem because electronic components may burn out if not cooled sufficiently. Excessive heat can damage any component, especially physically moving ones such as disk drives. Power sup-

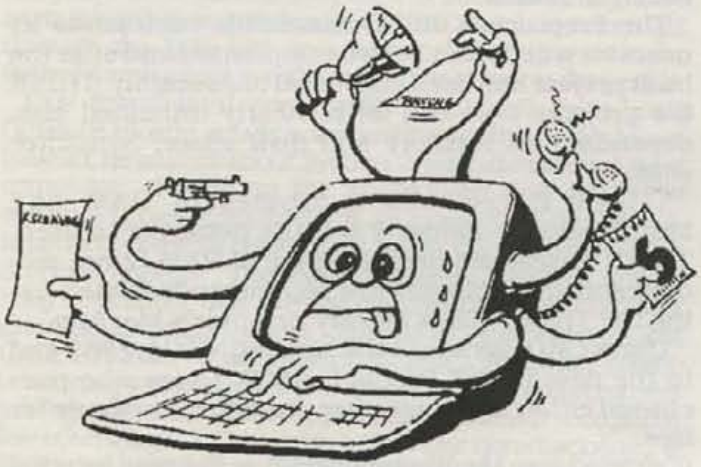
plies are sometimes a bit erratic for the first few microseconds when first turned on, resulting in initial power surges. Heating/cooling cycles can cause joint failures due to differing expansion properties between materials. The various wear factors have the greatest impact during power-on hours. Monitor phosphors and filaments eventually burn out. Humidity, salt, and pollutants can corrode various parts. Simple aging can also have an effect, although this is very small compared with the others. There are countless other effects related to the above causes — too many to enumerate here.

Note that turning computer systems on and off vs. leaving them on may not really matter much for today's average user buying new equipment. Computer equipment is increasingly well engineered and reliable. It is much more likely to become obsolete than wear out.

Hard disk drives, for instance, are by far the most likely component of a computer system to wear out because they are mechanical and undergo fairly high stress. Most of the other components—power supplies, monitors, logic boards, other electronics—last significantly longer in comparison. Since hard disks are the weakest link in the computer, we'll focus on them for the remainder of our discussion.

Most high-quality hard disk drives are rated for an average of 20,000 on/off cycles and an MTBF of 25,000 hours or more. If you turn your machine on/off once a day, it will take 55 years to reach 20,000 cycles. An MTBF of 25,000 hours means that the average hard disk should last about that long, and 25,000 hours is equal to 2.9 years of non-stop running. Again, remember that these numbers reflect probabilities, not certainties. In testing, hard disks sometimes survive 100,000 on/off cycles and the equivalent of 1,000,000 hours of continuous operation. On the other hand, some fail much sooner.

Now the question is: How much wear does turning a system on and off really cause? This is something that no one seems to have calculated yet. In fact, most will not even hazard a guess. However, let's take a crude and somewhat pessimistic guess that relates on/off wear to poweron-hours wear for comparative purposes. Let's say that the wear caused by turning a machine on and off is roughly equivalent to that caused by 8 power-on hours.



To do a rough calculation of how long a system will last if we turn it on and off each day, let's assume that a business computer is on for 8 hours each day, 5 days a week, 52 weeks a year, and that power-off time causes essentially no wear. Let's also assume that the MTBF for our computer as a whole is about 25,000 hours. This yields the following equations, where <life span in weeks> is the user's perceived life span for the computer system:

```
<on/off wear in hours>
= <life span in weeks> * 5 cycles/week * 8 hours/cycle
= <life span in weeks> * 40 hours/week

<power-on wear in hours>
= <life span in weeks> * 5 cycles/week * 8 hours/cycle
= <life span in weeks> * 40 hours/week

<<on/off wear in hours> + <power-on wear in hours> =
25,000 hours

<life span in weeks> * 40 hours/week + <life span in
weeks> * 40 hours/week = 25,000 hours

<life span in weeks> * 80 hours/week = 25,000 hours

<life span in weeks> = (25,000/80) weeks = 312.5 weeks
= 6.0 years
```

If we leave the computer on continuously:

```
<on/off wear in hours>

=0

<power-on wear in hours>

= <life span in weeks> * 24 hours/day * 7 days/week

= <life span in weeks> * 168 hours/week

<on/off wear in hours> + <power-on wear in hours> =
25,000 hours

0 + <life span in weeks> * 168 hours/week = 25,000
hours

<life span in weeks> = (25,000/168) weeks = 148.8
weeks = 2.9 years
```

Notice that the first case yields twice the life span of the second case, although the actual number of successful power-on hours is halved. A computer used less frequently would yield even better results.

Bottomline: Turn your system off when you won't be using it for 8 hours or more. But for the most part don't worry about it, because if you bought your computer system from a reliable manufacturer, it will probably last a very long time without any hardware failures. Remember that all systems will fail eventually, so keep backups.

Tim Oey is an engineer at Apple Integrated Systems, a division of Apple Computer that provides consulting and other services to corporate clients.

Unfair Treatment by Symantec

The following letter was faxed to Symantec (UK), to clarify the position regarding upgrades to their programming languages — Think Pascal and Think C.

Having only recently purchased the packages (in fact, one is still on back-order), we are naturally concerned that the U.K. branch of the company do not seem to be following the example of their U.S. counterparts.

We had hoped that we could include Symantec's explanation of the anomaly (or even a correction to their original statement, if appropriate). However, they have not even sent an acknowledgment of our question.

Therefore, we can only assume that their verbal response was accurate — i.e. that there is currently no upgrade path for U.K. users, and that users will be charged for upgrades, when they become available.

This is contrary to the treatment enjoyed by U.S. purchasers, and it seems indefensible that U.K. purchasers should be treated differently.

Is it any wonder that so many U.K. users resort to grey imports, when the U.K. company will not give proper support?

If we ever receive a response from Symantec (UK), we'll let you all know what the position is as regards upgrades.

Symantec (UK) Ltd.
MKA House
36 King Street
Maidenhead
Berkshire
SL6 IEF

Dear Sirs,

We have recently purchased THINK Pascal — so recently, in fact, that we have not yet posted our registration card. We were supplied with version 3.0, which is not compatible with System 7.

We have just seen an article in MacWeek (copy enclosed), which states that version 4.0 is available in the USA, and that this is system 7 compatible. It also states that upgrades are free for people who have purchased the previous version since 6th June.

We fall within this category, therefore we telephoned your UK office, to find out about the upgrade.

We were advised that no upgrade is available yet, but that one may be available by the end of the year. When we asked about the free upgrade, we were advised that we would be charged over £50 (regardless of the date of purchase).

We also have Think C on back-order, as this was out of stock. Will we have the same problem with this product?

We have telephoned to the Apple in the USA for advice, and we find that APDA are supplying the new versions — and they recommend that it is not worth purchasing the older versions.

Please advise the true facts, and clarify your 'Registration and Support Plan' (copy enclosed). It seems ridiculous that different rules should apply in the USA and the UK. We have many members who are developers, and they would surely like to know where they stand. Do Symantec (UK) really intend to keep us lagging behind our USA counterparts, by delaying the provision of programming languages which are compatible with System 7?

We await your answer with interest. It would be appreciated if you could send a speedy reply, so that we can advise our members of your response when we publish comments in our September magazine.

THINK C Pascal now 7.0-compatible

Cupertino, Calif. — Symantec Corp. this month began shipping new versions of its C and Pascal programming languages.

Both the $299 Version 5.0 of THINK C and the $249 Version 4.0 of THINK Pascal are compatible with System 7.0's 32-bit memory addressing and virtual memory. Both support required Apple events, the Macintosh Communications Toolbox and all Toolbox calls documented in Inside Macintosh Volume VI.

New objects were added to the THINK Class Library for both C and Pascal, including support for dialog boxes, multiwindow documents and System 7.0 aliases, balloon help, and required Apple events.

THINK C underwent the mostsignificant changes, including a compiler rewrite to provide compact and fast code, Symantec said.

I particularly like the code optimizer—anything to get rid of the bloat and inefficiency that we've had

Markers have been added to the THINK C editor, allowing users to jump quickly to portions of their source code. The source-level debugger now remembers break points and the data displays between sessions.

The Preprocess and Disassemble commands let users view code just before compilation and after the built project has been converted to Assembly. THINK C's projects now can be of nearly unlimited size, depending on memory and disk space, Symantec said.

THINK C requires 2 Mbytes of RAM and MultiFinder or Finder 7.0 if the debugger is used. THINK Pascal requires 1 Mbyte of RAM (2 are recommended)- 4 Mbytes are recommended when using the THINK Class Library or Apple's MacApp.

Users can upgrade to the new THINK C for $89 and to the new THINK Pascal for $69. Users who purchased either language after June 6 can upgrade for free.

(Extracted from MacWeek magazine, to illustrate our point)

More Gnus or Have You Herd?

by Neil Wolf, President of PMUG

The Apple-IBM collaboration continues to make front-page news on all the computer journals and trade rags. My guess: it's not all it's cracked up to be, but it's got a lot of tongues wagging in the worry-wort community. Given that the hi-tech scene is unstable at best, that means everyone is talking 'bout it. And that includes John Sculley. Our venerable leader was quoted in *InfoWorld* as saying "The Macintosh strategy paid off very well for us in the 1980s, but we didn't think we could establish the next generation of computing by using that model in the 1990s". Played backwards that sounds like "Macintosh is dead". Sculley also claimed that Apple was selling to "a dwindling customer base" and that "it was getting more and more difficult to sell to the corporate customer". Given all the hoopla that accompanied the latest Macs, and the generally conceded success of their sales (shipping of most models, especially the IIsi, are up), this hardly seems the case.

However, *Computer Reseller News* reports that Apple is sitting on nearly half a billion dollars worth of inventory more than at this time last year. To be sure, part of this is due to miscalculations of production of some machines, and part of it is due to the sluggish economy. It's interesting to note that in the same issue *Computer Reseller News* also reported that IBM's sales are down a whopping 92% for the same period. And in light of Sculley's claim that the computer industry is stagnating (!), maybe the only way these two behemoths could see saving themselves would be to join hands. So would it surprise you to find out that IBM will be shipping the first of their RS/6000 line of computers this month? And where is Apple in its plans for its RS/6000 hardware? Well, maybe after the just-announced 68040-based CPUs actually ship, and after the warehouses are emptied of all that excess inventory, perhaps we'll find out.

So what's wrong with this picture? For one thing there's been no mention of Microsoft. It appears that they're not providing any operating system for the new architecture. And given the recent rulings handed down by Judge Walker and others in Apple's 'look and feel' lawsuit against Microsoft and Hewlett-Packard, as well as the tiff in the DOS community over Windows 3 and OS/2, it's hardly surprising. In fact, doesn't it look like this is a neat way for both Apple and IBM to take a swipe if not a body blow at Microsoft?

Now what if IBM makes its RS/6000 machines with an open architecture, and Apple makes theirs closed? About the only thing that might change will be the labels on the machines we use and the numbers of clones available. (Guess there won't be a contest for the name—too bad.) And ten years from now Sculley (or his successor) might be saying that they counted on the RS/6000 architecture to get through the '90s, but now we're collaborating with the federal government in order to give the power to the people.

Our friend (and presumably confidant) Jean-Louis Gaussée mostly avoids commenting on this tacky issue. Instead, he natters about System-7-related matters. Latest complaint: clicking on the MultiFinder icon no longer switches between applications. In a recent *MacWEEK* column he claims this is the result "when the people in charge don't sin enough". The people in charge, however, apparently remember that sinning enough has been sufficient grounds for being purged. Jean Louis recommends Just Click 1.01 from Tactic Software, for people who want to keep on sinning and keep their job. Maybe he just can't comment intelligently about IBM & Apple collaborations (it seems that few others can...). Or maybe he's under non-disclosure.

Reprinted from 'Mouse Tracks', PMUG's Newsletter

System 7 / ResEdit Comments

by Charles DeVare

Ever thought you had gone insane? Try to change the name of your hard disk under System 7. It seems this little undocumented feature came though the beta programmers with no fix. The reason is that Apple is afraid that, if you use file serving, changing the name of a server will cause lots of problems. Now I can understand that, but having to reformat my hard drive just to change the name is a little drastic in my book.

There are so many new extensions (INITs) and add ons for System 7 that you could get lost trying to keep track of them. What you need to know is that the more extensions you use the greater your chances are of system errors and crashes. Please put in only what you can't live without and take out any new ones if you start getting errors. (Isn't that what we used to say under System 6 too?) If you continue crashing or freezing, try reloading your system with the Installer.

ResEdit is up to revision number 2.1.1. Warning! Warning!! Danger! Danger!! To all Mac novices: do not attempt using this program on your only copy of anything! As most users know, it can crash your disk, eat the file, and cause bleeding ulcers.

Extracted from 'Resources', PMUG's newsletter

FIRE MUG

"The responsibilities of the modern-day firefighter include responding to hazardous materials incidents, emergency medical and rescue operations, and a variety of other man-made and natural disaster-related incidents", says George Withers, Fire Chief of the City of Pleasanton (CA) Fire Department, and head of FIRE MUG, the Fire Service Mac User's Group. A longtime Macintosh enthusiast, Withers founded the User Group in 1988 to encourage firefighters to share information on how Macintosh could make their work easier and safer.

Monthly meetings attract firefighters as well as health department and emergency response professionals from all over Northern California. Vendors come to demonstrate software and hardware, and members discuss programs on professionally-related topics such as computer-based training, pre-incident planning and emergency response information as well as other Fire Department management applications. Several members have created HyperCard software stacks on subjects such as training scenarios for high-rise firefighting or hazardous materials response. "Our meetings also provide an opportunity for collaborative problem solving, particularly for our HyperCard fans", says George Withers. The group stays in contact with firefighters worldwide through an electronic forum of the International Association of Fire Chiefs (ICHIEFS) on the CONNECT network.

George Withers, Fire Service Mac User's Group, City of Pleasanton Fire Dept., PO Box 520, Pleasanton, CA 94566, USA.

Reprinted from Apple'sQuickConnect newsletter

windoWatch Gets Even Better!

Press Release

Hi Resolution have upgraded windoWatch, the completely automatic timesheet maker for Apple Macintosh users. The latest release (Version 1.5) builds on the success of earlier versions and incorporates many of the suggestions made by existing users. The new version includes the following new features:

- System 7 savvy, including Bubble Help.
- The facility to unobtrusively collect windoWatch timesheets over a local network. Combined or individual timesheets can then be produced from a single machine. Timesheets can also be made invisible if required.
- The ability to send messages over the network.
- Constant reminders to save newly created documents, if required.
- The addition of a pause corner to windoWatch's existing autopause options.
- A more powerful application which makes selection of timesheet entries easier and shows total time of selected entries. It also has a new 'print selection' option which is useful for showing a timesheet to a client and an 'AutoSelect' menu item which can be customised.
- A means of dealing with applications which have complex window configurations e.g. CAD packages.

windoWatch is indispensable for keeping track of all time spent working on the Macintosh and is being used by all sorts of businesses from the lone Designer or DeskTop Publisher to Polytechnics and Corporations. The latest version makes it easier for the Network Manager or Administrator to collect the timesheets produced by windowatch and makes the processing of the invaluable information that windowatch collects much easier for all users.

A single copy of windoWatch costs £99, the Office Pack of 5 copies costs £399 and there is a NEW Office Pack of 10 copies for £699. All prices plus VAT.

Registered users will be able to upgrade for £16, 5 Pack users for £48.

Contact Hi Resolution (0580) 211194 or the distributors, Softline (081 642 4242), for more details.

Adobe acquires ReelTime

Press Release

Adobe Systems has announced today the acquisition of ReelTime, digital video editing software for the Macintosh computer family, from SuperMac Technology in Sunnyvale, California. Specific terms of the acquisition were not disclosed, and pricing and availability will be announced at a later date. Adobe will also rename the product to meet national trademark laws.

Developed to take advantage of Apple Computer's recently announced QuickTime, ReelTime allows users to produce videos for a wide variety of uses, including internal communications, interactive training, and video publishing. Originally, ReelTime was developed as a complementary product to VideoSpigot, SuperMac's digital-video capture system.

Under the terms of the agreement, Adobe and SuperMac will continue to co-develop the product. In addition, the companies will work together to provide users with a total desktop-video solution by bundling ReelTime and VideoSpigot. Users will also be able to purchase each product individually.

"ReelTime brings the power of Apple's QuickTime strategy to reality", said Dave Pratt, vice president and general manager of Adobe's Application Products Division. "This product validates one of the fastest growing markets — digital video, and it is a great complement to our high-end graphics product line".

This announcement follows a recent move by Apple to include Adobe's Type 1 font technology in a future version of System 7. "The fact that this product fully supports Apple's QuickTime strategy reinforces our relationship with Apple", Pratt continued. "We will be working closely with Apple to determine future development objectives and to ensure we are aligned with their goals".

"Adobe is a tremendous partner to fulfil the promise this technology has to offer the desktop market", said Michael McConnell, president of SuperMac Technology. "This agreement allows SuperMac to focus on our core business graphics and desktop video hardware, while partnering with a company that has a history of evangelizing new markets on the desktop".

For further information, please contact:
Evelyn Ness or Michael Walker, Leading Edge Communications, 7 Candover Street, London W1P 7PS.
Tel: 071-255 3041

Ethernet Adapter for Macs

Press Release

Computers Unlimited has announced Dayna's DaynaPORT E/Z, the first low-cost, problem-free Ethernet adapter for any Macintosh. This external box plugs into the Macintosh printer port, through which it communicates with the Macintosh processor at high speed, while communicating with the network at the standard Ethernet rate of 10 Mbps. Designed primarily to provide Ethernet connectivity for Macintosh models which do not have an expansion card slot, it is ideal for the Classic, Plus and Portable. DaynaPORT E/Z will also prove useful for owners of single slot Macs where the slot is already occupied by a video board.

DaynaPORT E/Z is the latest addition to the DaynaPORT range. The DaynaPORT line offers Ethernet adapters to connect any Macintosh computer or LaserWriter to Ethernet networks using 10BaseT, thin Ethernet, thick Ethernet or fibre optic cable systems. A variety of protocols are supported including EtherTalk, TCP/IP, DECnet and OSI. DaynaPORT adapters also work with AppleShare, NetWare, TOPS and A/UX and are fully System 7.0 compatible.

Two models are available. DaynaPORT E/Z has a

BNC for 10Base2 (thin Ethernet, Cheaper Net) as well as an AUI port which allows connection to an external transceiver for other Ethernet media (10Base5, 10BaseF, Thick Ethernet, Fibre Optic) and other cable systems. DaynaPORT E/Z-T has an RJ45 connector for 10BaseT (Twisted Pair, Unshielded Twisted Pair) wiring systems.

"With DaynaPORT E/Z users can now connect any Macintosh and their LaserWriters to Ethernet with products from a single source." said Niall Corduroy, Marketing Director at Computers Unlimited. "As more users switch to System 7.0 and start making use of its network intensive Publish and Subscribe and application sharing features, we expect to see even greater migration to Ethernet. With the availability of DaynaPORT E/Z these users will have a simple, easy-to-install connection to Ethernet irrespective of the mix of Macintoshes on their network."

The DaynaPORT E/Z and DaynaPORT E/Z.-T are a ailable immediately at a suggested retail price of £399.

For further information, please contact:
Niall Corduroy/Louise Stewart Muir,
Computers Unlimited, 081 200 8282

OmniPage 3.0 for the Mac

Press Release

Caere has today announced OmniPage 3.0 for the Macintosh, an upgraded version of its market leading page recognition software.

This new version provides full System 7.0 capability, direct support for many recently introduced scanners, and additional capabilities that were previously only available through separate add-on programs.

The capabilities of OmniSpell, an interactive spell checker tuned to correct OCR errors rather than keyboard typos, and OmniDraft, a module that enabled the recognition of text produced on dot matrix printers in draft mode, are now included at no extra cost in OmniPage 3.0. Previously, each of these add-on programmes retailed at £89.00.

In addition, OmniPage 3.0 supports the Publish and Subscribe features of System 7.0 enabling a user to directly publish a scanned and recognised document so that other, subscribing, users on the network have immediate desktop access to the information it contains.

This new release provides direct support for more scanners than before, including recently released products from Microtek, Epson and Abaton. In fact OmniPage 3.0 continues to support more scanners than any other Macintosh OCR software. As before, users of scanners for which OmniPage does not provide direct support can save their page scans as TIFF files which can then be opened from within OmniPage.

As with previous versions of OmniPage, version 3.0 is based on Caere's state-of-the-art AnyFont technology, which enables scanners to recognise virtually any document, regardless of the number of typefaces or columns used. OmniPage 3.0 recognises all non-stylised fonts (6 to 72 points) at speeds of up to 115 characters per second, depending on CPU speed.

Once scanned and recognised, text may be edited using OmniPage's Transitional Editor or saved in word processing and database formats. To reduce editing time, version 3.0 allows users to select only those paragraphs or blocks of text required, and then re-order those segments before scanning.

OmniPage version 3.0 will run on any 68020 or 68030 based Macintosh computer with 4 megabytes of RAM, a hard disk with at least 4 megabytes of available space, and a compatible 300 dpi scanner. Version 3.0 will operate under System 6.0 and System 7 .0 .

At £695.00, OmniPage 3.0 remains the same price as for version 2.12. Upgrades cost £40 + VAT for registered users only. OmniPage 3.0 will commence shipping mid-September.

For further information please contact:
Niall Corduroy/Louise Stewart Muir,
Computers Unlimited, 081 200 8282

MacroMind/Paracomp Merge

Press Release

SAN FRANCISCO — MacroMind Inc. and Paracomp Inc., leading companies in the multimedia software industry, have signed a letter of intent to merge the two companies. The merger is expected to be completed by mid-August. Financial details were not disclosed.

"Together, Paracomp and MacroMind will have a greater business impact than either company has on its own because of the tremendous synergy between the two company's personnel, products, market position and technologies," said Tim Mott, president and CEO of MacroMind.

Bill Woodward, CEO of Paracomp, will serve as chairman, and Mott as CEO of the new organization called MacroMind/Paracomp. The two will share equal management responsibilities under the newly created office of the president, with Mott handling international operations, finance and engineering, and Woodward overseeing the company's sales and marketing.

"It's an exciting merger, particularly considering the product line that will now be available from one company," said Paracomp's Woodward. "Together the two companies will provide very complete and targeted solutions to creative professionals throughout the world. The user definitely wins."

MacroMind's flagship product is Director 3.0, an award-winning authoring tool for the Macintosh that creates quality interactive multimedia presentations, applications and animations.

"MacroMind Director and MediaMaker co-exist and are complemented by the capabilities of Paracomp's Swivel 3D Professional and FilmMaker," said Woodward. "The products exist together as a one-two punch for multimedia professionals. The union of the two companies will continue to build complementary products that together provide high-performance multimedia solutions."

Mac Etiquette

by Ed Cochanski

There was a time when etiquette was everything, unless you were willing to duke it out on the field of honour with sword or pistol — or worse, be exiled from the "A" invitation list of every leading society hostess in town..

Today, especially in New York City, where etiquette has come to nothing, and the public display of horrendous manners can get you to the top of the charts, a platinum record, or a Grammy, or all three, there is still one area where certain rules of etiquette hold sway and deal harsh penalties to those who break them — the workplace.

Everyone knows what they are. Whatever your profession or trade, whether you are an ironworker on the top girder of a growing skyscraper, a bank teller, a fry cook, or an office worker, there are hard and fast rules of conduct already in place, and learning them can sometimes be more important to your career than learning your job.

The Macintosh, however, especially DTP on that infernal machine is still so new to the work-a-day arena that almost no rules of etiquette exist (or not enough noses of toe steppers have been yet bloodied to put the rules on the lists).

In the Mac workplace, we are of course not talking about the run-of-the-mill work etiquette rules, such as coming in to work when you have the Flu just to impress your boss. Never mind that you infect all of your co-workers.

We are, rather, talking about the unique qualities of the Mac and other PCs which seem to invite bad behaviour.

The biggest culprit is the VDT, or Visual Display Terminal. You hardly hear "VDT" any more. Most people call it "the screen."

It is this close resemblance to a TV screen and the show business feel of the image on it, especially when one is working on full-colour graphics or animation, which allows people to think either that they are at home, or that audience participation is being solicited.

The beloved late comedian Jimmy Durante used to say, "Everybody wantsa get inta da act." And this seems to hold more truth in the case of MacDesign than anywhere else.

"OOOOH, I DON'T LIKE THAT RED", your co-worker whines as he passes by on his way to the coffee maker.

"HOW COME YOU PICKED BASKERVILLE FOR THE HEADLINE?" your desk neighbour squeaks as she's waiting for her hairdresser to come onto the phone.

"THAT PHOTO COULD BE A LOT SMALLER," an account exec from another account group loudly vocalizes in rich Stentorian tones, trying to appear (as always) as CEO material.

When Michaelangelo was painting the Sistine Chapel, if anyone criticized his work in progress while he was on the scaffold, he would throw down pots of paint or anything else that was handy. Once he even threw down his palette at no less a critic than Pope Julius. (That the palette had orange paint on it had nothing to do with the invention of the famous drink.)

A Mac, especially a Mac IIsi is not only too heavy to throw at anyone, but the cost! the cost!

Now, when a designer or artist is creating on the screen, forget rudeness, forget hurting his feelings — think instead about the bottom line, which is the more you break that fine golden thread of train-of-thought which is a creative lifeline, THE LONGER THE JOB WILL TAKE, and the more it will cost. Hence, we come to our first rule of Mac-etiquette.

Rule 1 Judge creative Mac work by the finished product — Wait until the designer asks, "What do you think?" Where people ever got the idea that a Mac screen is a public event is a mystery to me. No one these days would dream of looking over your shoulder while you are writing a letter either in longhand or on a typewriter, let alone verbalize the contents out loud. But let your work appear on a Mac screen and all bets are off. "IS THAT YOUR RESUME YOU'RE WORKING ON, CHARLIE?" someone booms out. Or. .. "YOU SPELLED 'CORKSOAKER' WRONG" moans the boss's prize syncophant.

Rule 2 Keep your eyes to yourself and keep your mouth shut. (You'll make a lot of friends that way.)

When it comes to printer etiquette, Benjamin Franklin had it easy. There was only one size and colour paper in those days. Nowadays someone comes in and pulls out the letter size tray, replaces it with a legal size tray, and then leaves with his legal size proof and forgets to replace the letter size tray. You always discover it after your letter size job comes out on legal size paper. Need we say what the next rule is?

Rule 3 When you finish printing, replace the !~&-#!~ tray if you have changed it.

And because some people must have their resumes on puce coloured stock.

Rule 4 When you have finished printing, don't leave your puce in the paper tray. The next person is expecting white.

And if the printer isn't on, how can anyone print on it?

Rule 5 The first person to enter the room turns on the printer.

Which brings us to the User's Manual. Even the world's "champeen Mackey" needs a User's Manual occasionally.

Rule 6 Put the User's Manual back where you found it the moment you are finished with it.

The same goes for diskettes.

Rule 7 Wait until YOU look for a certain disk and YOU can't find it.

Some people prefer a track'ball to a mouse. They can't help it if they were raised that way.

Rule 8 NEVER criticize another Mackers preference of peripherals.

Things being what they are, the Mac might very well be mankind's last shot at a brave new world.

Rule 9 If someone asks you for help on the Mac, give it as promptly and as cheerfully as possible.

Who ever heard of only nine rules for anything? Here's the last one.

Rule 10 Copy and post these rules everywhere there are Macs.

Ed Cochanski is a full-time freelance graphic artist and is making mastery of the Mac his last hurrah.

Reprinted from The Mac Street Journal, magazine of the New York MUG

The Ten Best Ways to Get a Mac into Your Company

by Guy Kawasaki

1. Get it in the door anyway you can. This is not the time to be proud. If management thinks it's a desktop publishing machine, agree and get their signature. If management thinks it's a front-end to an A5/400, agree and get their signature. If management thinks it's a door stop, agree and get their signature.

2. Let people play with it. The best way to get allies inside your company is to make people love Macintosh. The best way to do this is to let them touch, play, and use one. The rest is inevitable. Don't tell people Macintosh is great. Help them discover that Macintosh is great.

3. Highlight strengths, don't deny weaknesses. Concentrate on explaining the strengths of Macintosh: it's easy to learn, easy to use, easy to repair, and easy to love. Don't open a can of worms or waste time trying explain away the (few and MIS-perceived) weaknesses of Macintosh.

4. Provide a safe first step. Make it easy for management to say "Yes, you can". Don't tell them that you need five IIfxs with 21" color monitors. Instead tell them that you only need a Classic and maybe one "Mac II class" machine "for quite a while." Once you get Macintosh in, you'll have plenty of other people who will lobby or you.

5. Inspire, don't compete with MIS. This is probably the most difficult recommendation — I never said it would be easy. You aren't going to win a frontal assault on MIS. Instead inspire MIS with Macintosh's strengths. Show MIS how Macintoshes can make them into heroes. Be brave — and bite your tongue.

6. Let a thousand flowers bloom. Foster the use of Macintosh for any purpose. Don't dictate how people should use their Macintosh. You never know: they may come up with ways even you didn't think of. All that counts is that you get the Macintoshes in.

7. Localize your efforts. Macintosh is a personal computer. Don't position Macintosh as the harbinger of a "corporate computing plan." Answer this question for every Jane and Joe Doe in your company: "How will Macintosh help me in my daily work?" If you think local, pretty soon Macintosh will be global.

8. Beat your chest. As you achieve success, ensure that other parts of the organization hear about it. Don't do this in a braggadocio, bridge-burning way. Instead, position your success as a gain for the entire organization. Each victory, in turn, will get easier.

9. Remember your installed base. Suppose you achieve success and even management and MIS are using Macintoshes. This is not the time to forget the Macintosh pioneers who got you where you are. Take care of them: give them free software, swap out their slow hard disks, and give them more RAM.

10. Say it's a PC running Windows. If all else fails, tell management that the Apple-IBM alliance means that the purchase order is really for PCs running Windows. By the time they catch on (or up to you), it will be too late. Remember: ask forgiveness, not permission. It's the Macintosh way...

Guy Kawasaki is the former director of software product management for Apple Computer, Inc. In this position he managed the relationship of Apple and its developers. He is the author of Selling the Dream, a guide to evangelizing products, companies, and ideas. (HarperCollins, ISBN 0-06016632-0, $20) An evangelist never rests. . .

Reprinted from Resources, Newsletter of the San Diego Macintosh User Group

AppleLink Q & A

Compiled by Van Hellier

Question: Apple's promotional material states that running under System 7.0 with 2Mb is like running under 6.0.x with 1Mb. That is, you can run one program. But, when I install 7.0 on a 2Mb machine, I am left with somewhere from 750K to 850K available. Many programs will not run in a partition that small, or they complain first before grudgingly launching. Are 2Mb LC users required to get memory upgrades?

Reply: The only application I haven't been able to run on 2Mb is Adobe Illustrator 3.0. I can run FreeHand . . . and I can even open SOME of my Panorama files if I strip them down. (Reboot holding down the Shift key and you load a stripped-down System.) But running 2Mb with System 7 is definitely tougher and more of a challenge than it was with 6.0.x.

Question: Apple has done a great job with software compatibility in Sys7 but there is still a significant amount of software that needs to be upgraded. I would like to see Apple "encourage" developers more strongly to submit (correct) compatibility info for the compatibility checker. There are currently too many pieces of software that come up as unknown (I'm not talking about 5 yr. old shareware, either). I have also found inaccuracies in required version numbers (eg Omnipage and Virex among others list version numbers that the company says don't exist). Some of the information has also become out of date (eg Suitcase II). I realize that the developers are responsible for submitting the info and for its accuracy, but I would like to see Apple persuade them to make it a higher priority. I would then like to see the compatibility checker updated (the sooner the better) and made available on AppleLink. One last thought, make it work from a locked disk so that I can run it from a server without giving write access to its folder.

Reply: I agree.

Question: What do you think about this application? Are you using it? Do you recommend that users of previous versions upgrade to it? Does it take advantage of System 7 as much as you like?

Reply: Norton Utilities is the one application I'm most anxious for in a System 7-savvy version. I got so used to fixing disk problems with the System 6.0.x that I feel lost without it now. Once you switch to System 7 the current version is no longer useful at all. It simply will not work on a disk that has been updated to System 7.

Reprinted from Resources

International UG News

Worldwide Connections

Many User Groups in the United States are reaching out to their counterparts around the world to make connections and exchange ideas.

Apple II PD library for Europe

Participants at the European Council of International Schools (ECIS) Computer Conference, held in Munich, Germany, decided that there was a demand for an Apple II PD and shareware library in Europe. Seth Ruef of the American International School of Luxembourg (AISL) agreed to start and maintain such a resource.

At the conference, Ruef demonstrated about 15 stacks that he developed using Roger Wagner Publishing's HyperStudio software program. He created the stacks for use with the AISL Lower School computer classes, and they were enthusiastically received.

Those who attended the conference were welcome to take copies home. Seth would like to maintain stacks developed by teachers and make them available to other schools using HyperStudio.

If you would like to contribute to the stack library, or if you would like more information about Seth's stacks, you can contact him at the American International School of Luxembourg:
AISL, 188 Ave. de la Faiencerie, L-1511 Luxembourg, Grand Duchy of Luxembourg; or AppleLink: IT0051.

UG newsletter within a magazine

AMDA, a Macintosh computer User Group based in Vienna, Austria has come up with a creative solution for publishing their UG newsletter. Klaus Matzka writes that the group is cooperating with a bimonthly national Apple magazine. "We get some room in the middle of the magazine that we may use for whatever we want to publish," he explains. "Our information is printed without colour, and on lower quality paper. This reduces the production costs so much that the magazine is doing it for free for our UG," he adds. The group provides the copy and the magazine does the rest, Matzka says.

The nationwide UG was launched only last winter, and already has three local groups and four SIGs with many active members. A typical UG gathering might include a screening of Apple videos, or a product demonstration. For a recent meeting, the group connected a StyleWriter printer to different Mac computers to show performance comparisons.

Matzka stays in touch with User Group members in Austria and around the world through AppleLink (address: AMDA) and through the FidoNet network. He looks forward to exchanging ideas among all User Groups. "It doesn't matter any longer that we are thousands of kilometers away from your desks. We are able to work together. Apple has made the global village a reality."

Information provided by the User Group Connection, Apple Computer Inc., Cupertino

News from The States

PMMUs for Mac II

Anyone with an original Macintosh II needs a PMMU to access virtual memory under System 7.0. Sonnet Technologies is offering PMMUs for $99 each—an $80 savings from list price—to Mac User Group Members.

A Paged Memory Management Unit (PMMU) is a Motorola coprocessor chip that replaces a placeholder chip on the Macintosh II main logic board. Installing a PMMU is about as easy as installing a SIMM; (Sonnet provides an installation guideline sheet). Once the PMMU is installed, the "Virtual Memory" option in the System 7.0 "Memory" Control Panel becomes available. Having Virtual Memory means that the Mac II can now be configured to use available hard disk space as virtual RAM without installing additional RAM SIMMS into the Mac II.

To place an order for PMMUs, call Sonnet Technologies at 714-2612800. Sonnet, 18004 Sky Park Circle, Suite 260, Irvine, CA 92714, USA.

MacHam Radio

A Ham Radio Test Generator for the Code-free Technician Class of Amateur Radio License. MacHam Radio will help you to obtain your Amateur Radio License without taking a Morse code test. No prior knowledge of electronics is needed. The program contains all 700 possible FCC test questions. MacHam will generate FCC style exams, any number of unique tests are possible. You may test yourself on the entire pool of questions or on individual chapters.

The subject matter is broken down into 9 chapters for both the novice and technician parts of the exam. The 55 question test generated includes questions from all chapters based upon the FCC guidelines of exam subject matter. Chapter Topics: • FCC Rules for the Amateur Radio Service. • Amateur station operating procedures. • Radio wave characteristics. • Amateur Radio practices. Electrical principles. • Circuit components. Practical Circuits. • Radio Signals. • Antenna Systems. Exams can be taken on screen or in printed form. On screen exams provide the option of immediate feedback or scoring at the end of the exam. On screen test results can be printed. Printed tests include questions with blank answer sheets, correct answer keys,and all necessary diagrams. Any number of unique exams or multiple copies of the same exam may be printed for classroom use. A glossary of key terms is included, on line.

MacHam is fully compatible with System 7.0.and 6.07 and is shipping with HyperCard 2.1. a Macintosh Plus or higher, with 2MB of RAM and a Hard disk is required. The price is 49.95. Coyne Coyne Co., P.O. Box 2000-200, Mission Viejo, Ca. 92692-2446 714 855 689.

N.B. Information is extracted from vendor advertising, all claims should be checked for accuracy.
Reprinted from Resources

Notes on the Mac

by Paul Schlosser

Apple demonstrates Quicktime

At the Digital World Conference in early June, Apple demonstrated Quicktime, a multimedia extension to the new System 7.0 operating system for the Macintosh. Quicktime is scheduled to be available by the end of 1991. Quicktime was demonstrated at the WordPerfect booth by showing a document about a film called "Only the Lonely" that contained colour photos of scenes from the movie within columns of text. Clicking on the photos brought the image to life in full action and sound video and displayed almost three minutes of scenes from the movie. Apple anticipates a whole new range of software using Quicktime, from video mail to dynamic magazines, low-cost video editing to video conferencing.

Third-party software for the development of Quicktime routines is already available, costing between $500 and $1,000. Once created, a Quicktime document can be moved to any Macintosh with System 7.0, and the Quicktime extension, for viewing. The software that created the document is not necessary for viewing it.

Quicktime is composed of three parts: the Movie Toolbox, the Image Compression Manager, and the Component Manager. The Movie Toolbox is a set of system software services to incorporate "movies" in applications. "Movies" can be any dynamic (time-based) data, such as sound, video and animation. The Image Compression Manager makes it possible to work with the large amounts of data necessary for video manipulation on the Mac. One minute of uncompressed video data can take as much as 1 gigabyte of disk space, so compression is essential. The Component Manager allows the Mac to utilize digitizer cards, VCRs and other external system sources. It solves the problem of each developer having to write custom software for a piece of hardware by allowing the developer transparent use of all the features of the hardware.

Apple has defined two new file formats for use with Quicktime: "Movie" and "PICT." "Movie" is dynamic data, while "PICT" is image compression. These new file formats will be published, to encourage development onto other computer platforms. Three compression/decompression schemes will be available with the first release of Quicktime, and they vary from 10:1 to 25:1 compression.

Upon the release of Quicktime, developers will receive a CD-ROM containing the Quicktime extension, documentation, picture and movie utilities, HyperCard, XCMDs, sample code and drivers. Apple customers will receive the Quicktime Sampler floppy disk set, with the Quicktime extension, picture and movie conversion utilities, and samples. The developer version will only be available through Apple, the Quicktime Sampler through Apple dealers, and the Quicktime extension through user groups and bulletin boards. Prices have not been set.

Developers announce support for Quicktime

Fourteen developers have already announced support for Quicktime, Apple's new multimedia standard for the Mac Claris has announced that FileMaker Pro version 1.2v2 already supports Quicktime. WordPerfect version 2.1, available this summer, will support Quicktime.

SuperMac has demonstrated Videospigot and Reeltime. Videospigot allows the digitized capture and playback of video images from a video camera, or other source, with compression that varies from 3:1 to 20:1. Reeltime is digital movie editing software, and will be initially bundled with the Videospigot interface board. Videospigot and Reeltime are expected to be available later this summer, and list cost is expected to be $499. After the initial offering the Reeltime application will be sold separately for $699. The standard Videospigot board will be for the Mac LC and IIsi, while a NuBus version will be available for other Macs. Videospigot Pro will be for the Mac IIsi, and offers accelerated 8 and 24 bit graphics support for large screen displays.

Linker has announced "The Animation Stand" version 2.0, which has the ability to read and write animation files.

Vividus has announced "Cinemation," its upcoming presentation and authoring software. Uses include copying and pasting video clips into other documents for creating multimedia presentations.

RasterOps has announced that its line of video graphic boards and all future products will be compatible with Quicktime.

Apple lays off 1,200 employees

On June 21st Apple laid off 900 employees, with an additional 300 scheduled to be laid off during the next several weeks. The layoffs were cushioned by generous severance pay (based on years of service and corporate pay grade) and assistance in finding a new job. Chairman John Sculley took a 15 percent pay cut, with other top Apple executives taking cuts that ranged from 5 to 15 percent. (Apple's five top executives received $9.9 million in salaries and bonuses in 1990. Sculley himself received $2.2 million, plus $14 million from various stock deals.) Apple's earnings for the last quarter ($131 million in profits) were disappointing, and below expectations due to lower profit margins on the new low-cost Mac Classic and LC.

While earnings are lower, overall Mac sales are up by 85 percent. In an effort to boost sales even further, Apple has announced that CompUSA and CompuCom Systems will begin selling the lowcost Mac Classic, Mac LC and possibly the Mac IIsi. The two computer "super-store" giants will begin these sales later this summer, possibly as early as the beginning of August.

Caere announces Typist version 1.1

Caere announced Typist 1.1 in late June, a System 7.0 compatible upgrade to its popular optical character recognition (OCR) software. The Typist will scan any document, whether in typeface or column format, with the text read into a word processing program, spreadsheet or database program. The software works as a desk accessory. Scanning can be either horizontal or vertical, and overlapping text that has already been scanned is automatically discarded. Version 1.1 offers scanning at 75 dots per inch (dpi), 150 dpi or 300 dpi, improved editing functions, and settings for text, photos or line art. The Typist 1.1 lists for $695, upgrades from the older version are free. Caere can be reached at (408) 395-7000.

(Contact Computers Unlimited for U.K. details — Ed.)

Reprinted from Washington Apple Pi

System 7.0: Should You Switch?

by Ralph Begleiter

There are lots of good reasons to keep watching the progress of Apple's new system software for the Macintosh, called System 7.0. But unless you're an adventurous MacNovice, this is a good time to sit back and let someone else be the guinea pig.

Especially for novice Mac users, System 7.0 is likely to be a disappointment and more trouble than it's worth. That's not to say you won't enjoy switching to the new system software eventually — but if you try it now, you'll just get into trouble.

Better to familiarize yourself with the way the Mac works under tried-and-true versions of the Macintosh system, such as software version 6.0.5. This version works nearly flawlessly. So you won't be bothered by system crashes when you're just trying to learn the Macintosh way. Using this time-tested software, you'll become familiar with the electronic 'desktop', with its files, folders, menus and trash can.

Once you've become accustomed to using the standard 'Finder' (the program that presents you with the disk and folder icons), you can get adventurous and try working with the 'MultiFinder'. This step will familiarize you with the concept of working with more than one program running at the same time. You can switch back and forth between, say, a word processor and a graphics program or an accounting application.

MultiFinder will prepare you somewhat for System 7.0, because the new system software operates like MultiFinder all the time. Once you're comfortable with it, by all means experiment with System 7.0. But you probably won't want to make the switch right away.

Here's why:

- Many standard Macintosh programs are just beginning to make the transition from earlier system software compatibility to System 7.0. Current Macintosh industry publications are filled with listings of programs that aren't quite ready yet for System 7.0. Some are incompatible, which means they don't run at all. Others run into problems when they're operating under System 7.0.
- Very few Macintosh programs have yet been redesigned to take advantage of System 7.0. This is a difficult concept for MacNovices. But here's what I mean: Even if a word-processor runs okay under System 7.0, it may not yet be capable of taking advantage of System 7.0's ability to transfer commands and data between one program and another. Theoretically, you could copy a spreadsheet chart from (say) Excel into MacWrite. Under System 7.0, you should be able to change the spreadsheet chart and later discover that your very latest changes have been automatically noticed and adopted by the pasted version of the chart in your word processing document. (This is Apple's new System 7.0 concept called 'Publish' and 'Subscribe'). But most word processors and spreadsheet programs are not yet capable of using that 'publish' and 'subscribe' capability. So why bother to switch to System 7.0?

Likewise, under System 7.0, it will be theoretically possible to have your word processor send commands directly to your spreadsheet program to calculate some numbers you're using in one of your letters. But most programs aren't updated yet to take advantage of this new System 7.0 capability.

- Although Apple has gone to great lengths to be sure System 7.0 is 'bug-free', the history of such major system software upgrades suggests that there will inevitably be be some bugs.

You might want to wait until a later version is released before making the switch.

- Merely making the switch is a monstrous task. You've got to check your existing files for compatibility, reorganize your system folder, discard certain system files which conflict with the new system, etc. It'll be worth doing when the right time comes. But to make the switch now, only to discover that many of your most-used programs don't work would be a disappointment.
- Switching to System 7.0 is expensive. The Apple system software itself is a bargain. Even if you want all the manuals, you pay less than $100 for one of the most extensive software rewrites in Macintosh history. But hundreds of software developers have already begun to collect 'upgrade' fees for rewrites of their own programs to make them System 7.0 compatible. Some of these 'upgrades' are expensive (Excel is a prime example). Others, individually, are relatively inexpensive. But you'll be 'nickelled-and-dimed' to death. $15 to upgrade your 'phone index program. $30 to upgrade that utility that takes screen shots of your Mac. $45 to upgrade your 'macro' utility. Bigger upgrade costs for your word processor and spreadsheet. And so it goes.

Again, these upgrades will probably be worth the price, once you switch to System 7.0. But if you switch right away, you'll find yourself waiting for the upgrades, instead of just collecting them for the day when you do decide to make the switch.

As you look into software being 'upgraded' for System 7.0, be aware of various levels of upgrades. Here's a MacNovice guide:

- **'System 7.0 hostile'** software won't work with the new system. It'll crash your computer.
- **'System 7.0 compatible'** software is a program which will run under System 7.0. These programs won't crash under System 7.0. 'Compatible' does not necessarily mean the software will do anything it couldn't do under older system versions.
- **'System 7.0 friendly'** software takes advantage of some of the new system features, such as new 'help' features and perhaps the 'publish & subscribe' feature.
- **'System 7.0 savvy'** applications (of which there are very few available at this time) take advantage of all of Apple's System 7.0 features (including the 'inter-application communication' feature I mentioned earlier, and the ability to work with larger amounts of memory).

How can you determine where new software falls in these categories? Good question! You'll just have to read the software descriptions carefully to see whether a program is 'savvy' or merely 'friendly'. Then you've got to decide whether it's worth the money to buy a merely 'friendly' version, knowing that a 'savvy' product is almost certainly under development.

It'll be a long time before there are many 'savvy' applications available. I'm not suggesting you should wait until everything's 'savvy' before you switch to System 7. But, for MacNovices especially, you'll do yourself a favour by tempering any desires to be the first Mac user on your block to have System 7.0 running on your machine.

Reprinted from Washington Apple Pi

Aldus SuperPaint 3.0

Press Release

At Boston Macworld Expo in August, Aldus Corporation introduced a major new release of Aldus SuperPaint — its integrated painting, drawing and image-enhancement program for the Apple Mac. SuperPaint is developed by the company's subsidiary, Silicon Beach Software.

"Aldus SuperPaint 3.0 has been designed as the all-purpose graphics solution for graphic artists and business users", said Steve Cullen, Silicon Beach Software. "The new version's approach to colour and black and white, together with its overall versatility and functionality, will provide exceptional value for our customers".

New features in version 3.0 provide solutions for both black-and-white and colour users with the addition of support for 1-, 8-, 16-, and 32-bit documents. This will offer photo-realistic technology to the SuperPaint user, according to Cindy Taylor, product marketing manager. "Customers working with 8-bit systems, for example, will be able to have quick access to nearly 16.8 million colours without requiring a 24-bit board", she said.

In addition, SuperPaint users will no longer need to purchase a separate program to fulfill their imaging needs. "SuperPaint's new image-enhancement capabilities have been seamlessly integrated into the program", Taylor said. Features include brightness and contrast, colour balance, masking, smudge, diffuse, lighten, darken, and invert.

Another key new feature is texture fills. Several are provided with the program, others can be created easily, and all can be applied as fills in both the paint and draw layers of the program. High-resolution paint and draw textures can be created directly in SuperPaint, or EPS textures can be placed from another program, such as Aldus FreeHand and used within SuperPaint. Either approach can be used to create magazine-quality textures that can be output at the printer's maximum resolution.

Gradients, another significant enhancement to SuperPaint, are gradual transitions from one colour to another. They can be created in both the paint and draw layers. In a colour document, up to 256 colours can be used in a single gradient. A palette of nearly 16.8 million true and 'dithered' colours offers the ability to specify the direction and type of the gradient fill. Users can also create PostScript-language gradients in the draw layer for detailed, high-resolution output. All fills (including patterns with colours, textures, and gradients) can be applied with any tool that uses fills.

Hot keys, a new feature that lets users quickly access tools and palettes with a single key, is particularly useful when working on small monitors, multiple monitors, or in full-screen mode. "The new, simplified interface makes SuperPaint easier to learn, and the quick access to tools and palettes through hot keys makes it even easier to use", Taylor said. "This bridges the gap between learning and using the program, enhances productivity, and gives our customers true flexibility in the way they work".

The system configuration for working in black-and-white is a Macintosh Plus, Classic, SE, Portable, SE/30, LC, or II series, with 2MB of RAM, System 6.0.5 or later, a hard disk, and one 800K drive. Colour documents require a Macintosh SE/30, LC, or II series, 2MB of RAM, and 32-bit QuickDraw, System 6.0.5 or later, a hard disk, and one 800K drive. Aldus SuperPaint 3.0 will be available in the third quarter of 1991.

Gallery Effects: Classic Art

Press Release

Aldus Corporation announced at the Boston MacWorld Expo that it has begun North American shipment of its newest software product, Aldus Gallery Effects Volume 1: Classic Art. Developed by Aldus subsidiary Silicon Beach Software, Gallery Effects is a collection of filters that create special artistic effects that can be applied to colour, grayscale, and black-and-white bitmap images. The filters enable graphic artists and designers to transform scanned or original bitmap graphics into sophisticated, painting-like images automatically and consistently.

Gallery Effects has 16 filters, including Chalk and Charcoal, Dry Brush, Emboss, Fresco, Graphic Pen, Mosaic, and Watercolour, designed to recreate classic art effects. Each effect can be customized for dozens of possible variations. The artistic sophistication of the effects is designed to satisfy the demanding requirements of graphic-design professionals, while their ease of use and automation suit general purpose users.

Artists and designers can apply the effects directly while working within leading Macintosh graphics programs that support plug-in filters, including Aldus Digital Darkroom Adobe Photoshop, and the forthcoming Aldus SuperPaint 3.0.

The filters can also be used with the application and desk accessory that are included as part of the product. Both allow the user to preview, open, and crop graphics images in the PICT (up to 32-bit) and TIFF (up to 24-bit) formats. The user can then preview an effect, customize it, apply it to the image, and then save and print the result.

"Gallery Effects is remarkably easy to use", said Maurice Rizzuto, product manager for Gallery Effects. "The user merely chooses the desired artistic effect and then clicks a button to apply the effect to the image. The effects provide interactive feedback, saving users time and expanding their creativity by encouraging experimentation."

"The product has had an overwhelmingly enthusiastic reception", Rizzuto added. "The graphic artists we have been working with have already produced striking artistic results with the program. One tester used output from Gallery Effects in title images for 'The Jill Ireland Story', a movie broadcast nationally on NBC in May."

The recommended system configuration is an Apple Macintosh II series computer, Macintosh LC, or SE/30 with a colour monitor and card; 4MB of RAM (2MB minimum); System 6.0.5 or later, Finder 6.1 or later, and 32-bit QuickDraw 1.2. Gallery Effects is also compatible with System 7.0.

Aldus Gallery Effects is available in the U.S. and Canada from Aldus resellers for a suggested retail price of $199 (U.S.). Localized versions for European markets will be announced later.

Aldus UK Ltd has offices in Edinburgh and Middlesex — telephone 031 220 4747 or 081 568 8868.

APDA News

Easier Access to Development Tools

Two big developments at APDA, Apple's resource for development tools, make it easier for customers to get their hands on development tools and resources. First, APDA is eliminating the annual subscription fee. Now anyone who wants to order products from APDA can begin purchasing immediately. Customers wanting to purchase beta products simply sign the APDA Terms and Conditions form that's in the product catalogue and send it to APDA, where it will be kept on file.

APDA is also announcing the debut of the new APDA Tools Catalogue, replacing its APDAlog predecessor, that showcases more than 300 Apple and third-party development products. The catalogue's new format makes it easier to use and navigate, allowing customers to find products more quickly. In addition, product photos and screenshots complement the detailed product descriptions to help you in your purchasing decision. Customers will receive a complete catalogue sourcebook twice a year; quarterly updates between sourcebooks will highlight both new and key products. The new catalogue is included in this month's Connection mailing to User Groups. For ordering information or to request additional catalogues, contact APDA at (408)562-3910 or AppleLink: APDA.

APDA Ships MPW 3.2

User Group members involved with programming know that the Macintosh Programmer's Workshop (MPW) — Apple's own Macintosh development system — offers one of the most powerful programming environments available. Apple recently announced that it is shipping the latest version of this development tool, MPW 3.2.

MPW has been used to write a wide range of award-winning and powerful software for the Macintosh, including System 7, HyperCard 2.0, and numerous in-house applications. With MPW, you can program in Object Pascal, C, C++, and assembly language (from Apple); also Ada, FORTRAN, and other languages (from third parties).

MPW 3.2 has these new features:

- Compatibility with Macintosh System Software 7
- Compatibility with A/UX 2.0 or later
- New 32-bit run-time architecture which breaks 32K segment limit
- Improved compiler optimizations
- Improved source-code navigation in the MPW shell
- 411, an electronic information retrieval system for essential technical information and Developer Essentials

MPW 3.2 is available from APDA in both floppy disk and CD-ROM formats. Individuals with CD-ROM access may want to purchase the CD-ROM-based product, since it offers greater value in comparison to its floppy disk-based counterpart.

For ordering information, contact APDA at (408)562-3910 or AppleLink: APDA.

Reprinted from QuickConnect, Apple Computer Inc's newsletter for Apple User Groups.

New Graphics Accelerator

Press Release

What makes the Mac so useful and unique is that it's graphics-oriented. But this means the CPU (central processing unit) has to work hard to support the Macintosh features.

As a result, you sometimes feel you think faster than the Mac can react. And in fact, studies on interactive tasks show that when response times exceed 1-2 seconds, creativity and productivity are significantly reduced.

For many months Formac has worked on this problem; how to accelerate QuickDraw-based routines so that you aren't constantly waiting. The result is Formac's new ProNitron GA. Combining Formac 16.7 million colour quality with a high-speed accelerator in one board.

Combining them on one board reduces time taken for instructions to move around the Mac. So programs run much faster. The Mac responds faster. QuickDraw operations run up to 40 times faster than you are used to. All of which improve your creativity.

But in addition, by adding a separate graphics engine, Formac in effect gives you another Mac. There are now two processors to share tasks. So while the ProNitron GA carries out your graphics-intensive work, it returns control of the Mac to you for some other task. This is called Parallel Processing, and it's very like having another Mac!

The result of this new Formac card is you'll be working in 24 bit mode at the speed you now work in 8 bit. Which brings us to Formac's best achievements. By adding up to 8MB of dynamic RAM, some remarkable features become available to you.

First, the Formac PICT Cache. Take an example. When QuarkXpress needs to redraw a colour picture, it normally takes it direct from the hard disk. Uniquely, with the GA pictures are loaded the first time into the PICT cache in its own on-board DRAM. Subsequent calls, for example when re-drawing after scrolling or dragging, fetch pictures from the cache at 100 times faster than usual. Or used as Font Cache, this same DRAM stores fonts once computed. So re-drawing text after scrolling is much faster, you can work faster and your productivity increases.

Formac's GA also supports Apple's G-World, which increases scrolling speed even more.

The optional co-processing unit makes calculation intensive applications such as high-performance 3D, CAD and other processes run at highest speed.

With its on-board accelerator working in 8 or 32 (24) bit modes, the GA serves all your graphics requirements. You can choose from two resolutions: 1120 x 840 and 1024 x 768 pixels dependent on your monitor.

4MB of video ROM let you run real 32 hit programs. They also enable you to pan over a virtual screen of up to 2048 x 1500 in 8 bit, using Formac's unique fast hardware scrolling. The ProNitron GA works optimally with Formac's ProNitron 80.19 and 80.21 monitors.

For further information please contact:
Simon Warman-Freed, FORMAC Ltd
Tel: 0727 821393

UG-TV on September 25th!

This extract from QuickConnect (Apple's User Group Newsletter) shows what's happening in the States. Come on, Apple UK! why can't we have some air time?

Would you like to take a stroll around Apple's "historic" Cupertino campus, home of the early days of Apple Computer and today's product development sites? Or would you like to share an evening with Apple engineers and hear "the real answers" to all your questions about Apple II and Macintosh products? You can do both by finding a site where your UG can link up for the first National User Group TV broadcast on Wednesday night, September 25th. But you'd better hurry — time is running out!

The 90-minute broadcast is slated to begin at 6:30 p.m. Pacific Time, 9:30 p.m. Eastern. User Groups will get a chance to hear about User Group Connection programs, and meet the team behind some new Apple II and Macintosh products. Groups will also be able to take part in a live, interactive Q&A session by phone and America Online.

"Making this happen for your User Group is easy, and no one should be intimidated", says Rye Livingston, User Group Connection member and manager of the event. "All you need is a satellite dish, a place for your members to gather, and a willingness to make it happen", he adds.

Dozens of groups have already made arrangements to receive the telecast. We've heard of plans for meetings in schools, restaurants and a local country club. One group has even lined up a third-party software company as a sponsor! Some groups are coordinating regional meetings or using the event to attract new members. Others are hosting smaller meetings in members' living rooms.

Powwow '91

by Kandy Arnold

This year's National Apple User Group Conference (NAUGC) was held in Berkeley, CA, in its first appearance outside the Midwest. Titled Powwow '91, the event attracted more than 100 User Group enthusiasts from the United States and Canada. The Apple II and Macintosh "tribes" gathered at the University of California at Berkeley, June 7-9 for three days of intense sessions, debate, camaraderie, and even some outdoor fun.

The conference featured presentations by attendees and local non-profit organizations. Topics included SIG and product-line sessions, the Disabled Children's Computing Group, CompuMentor, and HyperCard. There were also User Group management sessions on fund-raising, keeping groups user-friendly, developing a board of directors, working with developers, motivating volunteers, and maintaining a Bulletin Board Service. Intense discussions about how to grow a User Group without reinventing the wheel were interspersed with walking tours of the Macintosh sites of downtown Berkeley, including stops at two local Mac-only software dealers.

At the Apple II sessions on Friday, organized by local activist Joe Kohn, Apple II Product Manager Jane Lee and Apple II Evangelist Rob Barnes discussed the Apple II line and Apple's commitment to the products. Kohn organized several software swaps, as well as donations of Apple II software. On the second morning of the conference, representatives from Apple's User Group Connection were on hand to field questions. They also shared news about Connection programs and upcoming events, such as the UG-TV broadcast (see previous article).

As in past years, vendor-sponsored events highlighted each evening. The keynote dinner Friday night, sponsored by the User Group Connection, featured Rob Moore, designer of the Apple //e emulation card for the Macintosh LC, as well as a performance by computer entertainer Saint Silicon.

MacroMind kicked off its national tour with a multimedia barbecue on Saturday, hosted by Marc Canter. There were several other sponsors from the vendor community, including local Rent-A-Mac, who provided a roomful of Macintosh equipment for conference participants' use.

For many, the event was a chance to share ideas with other UG leaders who face similar challenges. "It was really informative to talk to people from different-size groups", said Steve Costa, executive director of Berkeley-based BMUG. Even though BMUG did not sponsor the NAUGC event, they organized guided tours of their 3,000 sq ft office, and offered attendees discounts on their publications.

With the Berkeley event successfully concluded, Cohen said he looks forward to having the NAUGC tradition continue in another site next year. "It's important that the location moves around so different groups can attend. The skills one gains in running a NAUGC can be very helpful to your local group", he added. Cohen offered to work with next year's organizers to insure continuity and to maintain the valuable vendor, community, and UG connections already established. "It's important that we continue to meet, communicate and collaborate — live and electronically — on a local, regional and international level, year-round", he said.

The National Apple User Group Conference is preparing a move to the East Coast for the 1992 event.

Kandy Arnold is an Albany, California-based freelance writer and photographer. Her work has appeared in MacWEEK and BYTE magazines, among others.

Reprinted from QuickConnect, Apple Computer Inc's newsletter for Apple User Groups.

System 7

An Interview with Roger Heinen

(Reprinted from QuickConnect — the user group newsletter produced by Apple Computer Inc., in U.S.A.)

With the debut of System 7, Apple embarked on a new approach to expanding the power of the Macintosh through system software. We recently had a chance to talk with Roger Heinen, Apple's vice president and general manager of the Macintosh Software Architecture Division, to hear his thoughts on Apple's system software and its role in future Apple products.

Quick Connect: Roger, by now most User Groups have heard about System 7 and the capabilities it brings to the Macintosh. Is there other news you'd like to share?

Roger Heinen: System 7 really is the most substantial and important software product from Apple in its history, and customer acceptance has more than surpassed our expectations. But for us, System 7 isn't done yet. System 7 won't be complete until a substantial number of users in the installed base are converted without any problem. We have a team that meets almost every day to understand what is occurring in the user community. We haven't found any significant bugs, but we have found minor problems with applications compatibility. We're really trying to stay with it. We've just recently integrated System 7 into manufacturing, so that all new machines ship with it pre-installed. Finally, there will be worldwide availability in early 1992, when the non-Roman language versions ship in the Far East.

QC: Will system software updates be as frequent as in the past?

RH: System 7 is the base from which we will build for some time in the future. This is a new approach for Apple. Yes, there will continue to be major system releases every few years, which will be intended for all Macintosh users. But between those events we'll introduce components that build on the base — enhancements of value to the user community. We'll be distributing the enhancements through various means, including User Groups. The bulletin boards User Groups supply are a key way of getting system software into the hands of customers, and we anticipate continuing to work with User Groups in this way.

QC: With Balloon Help in System 7, Apple has introduced a new level of online support. What other support options are you considering in the future?

RH: Making sure that the user has easy access to answers when there is a problem is one of our big challenges. Balloon Help is a big step forward. So are the phone-in answer lines which are now available for System 7 users. We anticipate expanding both of these — more 'phone support and better, more complete online help. In fact, we're really excited about an investigation into a new generation online help system that uses Apple events. This type of help system can do more than "Where am I?" It can do "Show me!".

We also want to have much more robustness in the face of errors, whether they are hardware or application or user errors. The software should do as much as possible to prevent user confusion, and we know that confusion comes from things happening unexpectedly. For instance, System 7 provides more descriptive information when a system crash occurs.

QC: The increased capabilities of System 7 have helped change the notion of what system software can be. As you look at System 7 and beyond, what are your thoughts on the role of system software?

RH: Traditionally there was a hard wall between an application and the operating system. That's no longer the case. The way we define our job is to deliver the best possible user experience. We don't say we're going to deliver the best possible operating system, because that doesn't solve anybody's needs. The user should never have to worry about the idiosyncrasies of the operating system. The underpinnings, whether it's in ROM or written in C, should be invisible.

As we move forward in time, we constantly restructure how that user experience is delivered, to take advantage of new hardware and software technology, and to create new opportunities for developers. For example, in System 7 the Finder has been rewritten with object-oriented technology to make it much more extensible. We're in this constant mode of evolution, pushing the operating system to do more while at the same time trying to simplify it for the user.

QC: We've heard a lot of talk about object-oriented programming and its role in future software development, both for Apple and others. Can you tell us about this technology and its implications for developers and end users?

RH: We believe that the real burden in our industry in the late 1990s is going to be in application development, and it's for that reason we've picked an object-oriented operating system as the one to invest in. Just as the objects and scripts in HyperCard help people easily create stacks, object-oriented technology helps the developer write applications faster.

What object-oriented technology will bring to the user is also very exciting. Users will be able to customize systems for themselves, without complex programming. We think there will emerge a new class of software developers who will be shipping small program fragments that you can cut and paste together to form hybrid programs. For example, there might be a text gatherer, a small spreadsheet engine, or a component to do video. Today it takes a skilled programmer who is very computer literate to write programs. In the future, with object-oriented technology, someone's mom will be able to write a program customized for her personal needs. Users will be able to do things that the original programmers never thought possible. That's the real dream of object-oriented technology. Look for a lot more from us in terms of improving our MacApp object-oriented application development environment. People should also expect to see enhancements to our open scripting architecture that provides users with the ability to easily customize their Macintosh.

QC: Apple also is exploring RISC (reduced instruction set computing) technology. What benefits will

this bring to end users?

RH: With RISC, the amount of horsepower that's available inside the system will greatly increase. It will enable us to do things that aren't possible with today's technology, such as better graphics and voice recognition. From the end user perspective, there will be all sorts of new applications and capabilities in the Finder. We will be able to deliver much more information through the interface. For example, virtual reality is very cutting edge right now, especially for entertainment devices. These explorations are helping us to better understand how to incorporate animation, 3-D, and more liveliness in the user interface. RISC technology will give us the horsepower to incorporate that into Macintosh.

QC: You've said that your job has two parts, one of which is to lead the team that creates new system software. What is the other?

RH: The other part is to make sure that developers who write Macintosh applications will be successful. We know that when you go to a store to buy a Macintosh, you're buying it because it's going to run an application you want. We want to push the state of the art for the kinds of applications that are built on Macintosh. In the coming year, you'll see us do more to ensure that developers are successful in writing their applications for Macintosh, as well as getting them successfully to market.

Being successful in today's market is difficult and often requires developers to offer their products on several platforms. We're working with developers to make multi-platform support easier for them. That's a dramatic change from where we have been in the past, where we kept it all to ourselves. Now we realize that for the success of the developers, we have to release software to a broader world, to make it more universal.

Another thing is that there are a lot of good standards emerging around the industry, especially around networking. We've changed our attitude there as well. We're inventing the things that are really unique and cutting-edge, but if there's a standard in place, we'll use it.

QC: How might User Groups offer input on future versions of system software?

RH: We feel every user is important, and we love to hear what users have to say, whether it's in a quick e-mail message or a more formal letter. No one, especially User Groups, should feel reluctant to send me suggestions. We love this kind of thing. Of course, it's not a democracy, and we have to make decisions in the scope of other competitive issues. But we really like to hear feedback. So whether it's face-to-face, or electronically, or on paper, no one should hesitate to send us their thoughts. It means a lot to us. We get phone calls, videotapes, and letters all the time. We believe in creating the best user experience, and we want to hear what people have to say.

Roger Heinen can be contacted at Apple Computer, 20525 Mariani Avenue, M/S: 81RH, Cupertino, CA 95014; AppleLink: Roger.H.

Reprinted from QuickConnect, Apple's newsletter for non-profit making user groups

UG Advisory Council News

Once each year, Apple's User Group Connection organizes a User Group Advisory Council (UGAC) where User Group leaders assess accomplishments and chart directions for UG programs. The 1991 UGAC — Apple's sixth — took place July 14-17, in San Jose, CA. Fourteen representatives from User Groups and two from Professional Associations gathered for three and a half days to meet with the Connection and managers from Apple's product, support, and marketing divisions.

Council members are selected to represent the broadest possible cross-section of the UG community. This year's Council members reflected groups small and large, new and established, from different geographic locations, different product interests (Apple II, Macintosh, multivendor) and diverse memberships (community, corporate, university, K-12, government, and national associations).

Council members spent several months preparing for the meeting, gathering input from UGs in their regions and through discussions held on AppleLink and America Online. This contact helped them understand the needs and goals of User Groups in their regions and interest areas, and better represent them at the Council. "I wanted to be sure my voice represented more than just one User Group", said Dave Lavery, Chairman of the NASA Headquarters Macintosh User Group, who made 'phone calls and attended several UG meetings in the Washington, DC area.

During the Council, participants met with Apple managers to discuss marketing, support, and distribution issues, product development ideas, and Apple's general business direction. User Group leaders worked together to prioritize issues which were discussed in separate sessions with Apple's CEO, John Sculley, and Bob Puette, President of Apple USA. Each executive discussed Apple's sometimes difficult business decisions and how they related to specific UG concerns voiced during the Council.

Participating UG leaders debated many issues, often long into the night. These included concerns about the rôle and perception of User Groups both inside and outside Apple, a desire to better understand Apple's business direction and possible relationship with IBM, and a request for clarification of UG licensing of system software and HyperCard software. User Group leaders also asked to be better informed about Apple's product distribution plans and Apple's intention for end user support. Participants acknowledged the Connection's efforts on behalf of the UG community, while offering numerous suggestions on improving programs and services. Of particular concern was recognition of UG volunteers to prevent burnout.

Council participants unanimously agreed that year-round discussion of these issues is important, and that it should involve the entire UG community. "Apple and the Connection have always valued the feedback gained from UGAC, and incorporated it into their business plans", explained Dee Anne Dougherty, the Connection's manager of Education User Groups and chair of this year's Council. "This year, we want to bridge the entire User Group community, by establishing a year-round input mechanism and keeping UG members up-to-date on our actions that result from their ideas."

(It's a pity the UK is so far from these events — Ed.)

Reprinted from Apple's QuickConnect newsletter

Members' Small Adverts are FREE. Please help us to help you. Send your advertisements to us on a disk, in Mac or Apple II text format. We will return the disk, of course. This saves us time, and avoids errors.

Members' Small Ads

Members Small Adverts are FREE. We reserve the right to edit and or omit them. They are placed in this Magazine in good faith. Apple2000 holds no responsibility over items advertised, and buyers purchase at their own risk.

WARNING: The sale of copied or pirated software is illegal.
Please ensure that items offered for sale are new or are re-registered.

FOR SALE OR SWAP

Public Domain and Shareware for the Apple //
Many disks.....**(each) £2.50**
Prices include P&P
Send a stamped, addressed envelope for a list to:-
[illegible]

FOR SALE

APPLE IIGS SOFTWARE
KINGS QUEST IV (3 3.5" DISKS, MANUAL AND BOX) **£15**
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APPLEWORKS 2.0 (2 3.5" DISKS) WORKS ON MAC LC WITH IIE CARD **£20**
ALL PARTS ARE ORIGINAL, IN EXCELLENT CONDITION. PRICES INCLUDE POSTAGE.

'PHONE JONATHAN.....[illegible]

FOR SALE

Complete Apple IIgs system including:-
Apple IIgs (Rom version 3) with 3 meg of RAM, Insyder 40 meg Internal Hard Disk, Cirtech Primo Memory Card with 2 meg fitted (can hold up to 4 meg), Apple IIgs Colour Monitor, ImageWriter II Colour Printer, Apple 800k 3.5" disk drive and 2 Apple 140k 5.25" disk drives, Stereo Speakers, Hyperstudio Sound Digitizing Card and Microphone.
General Software:
Appleworks V3.0, Renaissance Disk Optimiser, Guardian Disk Backup, Hyperstudio V2.1, Micol Basic gs, TML Pascal II and Speech Toolkit, Soundsmith, GSOS V5.04, Copy II Plus, Softdisk gs disks, Print Shop gs + hundreds of graphics, A2-Central on disk, Stack Central on Disk, Paintworks Gold, Apple Xtras.GS, PRODOS 16 Exerciser, Music Studio, Fractal Explorer, Gazelle Comms Software, Dollars and Sense, The Beagle Compiler, Apple Logo II, Hayden Compiler +, The Graphics Magician, Special Effects, Nibble Magazine Software disks, Topographic Mapping, Visicalc 16 and a large selection of shareware, Hyperstacks and many many more.
GS Games:
Life and Death, Defender of the Crown, Mean 18 Golf, Balance of Power 1990, Task Force, Hunt for Red October, Silpheed, Destroyer, War in Middle Earth, Silent Service gs, Dungeon Master, Xenocide, Dark Castle, Space Quest II, Kings Quest IV, Shanghai gs, 2088 The Cryllan Mission, Downhill Challenge, Teenage Queen, Test Drive II and many many more.
Apple II Games:
Flight Simulator II + Scenery Disks, Pool of Radiance, Curse of the Azure Bonds, Battletech, Dragon Wars, Eamon, Starglider, Space Rogue, Space Shuttle, Lords of Conquest, Galactic Trader, Tawala's Last Redout, Elite, Skyfox, Neuromancer, Jet, Thunderchopper, Colossus 4 Chess, PHM Pegasus, Ultima IV, Marble Madness, Wasteland, Might and Magic I and II, Sundog - Frozen Legacy, Star Trek, Wizardry I and III, Captain Goodnight, Shogun, 221b Baker Street, Corruption, Bard's Tale, Autoduel and hundreds more
Manuals:
Usual Apple II and IIgs manuals, docs for above programs, Exploring the Apple IIgs, Programmer's Introduction to the Apple IIgs, Apple Numerics Manual, Apple IIgs Toolbox Reference Vols I, II and III, Pascal for the Apple and several others. Also miscellaneous bits of hardware including an Apple IIgs Memory card and Quickie Hand Scanner Interface card.
Total Package .....**£1200 ono**

'Phone Mateen (evenings only) .....[illegible]

*** WANTED ***

'MATCHPOINT' CARD TO FIT INTO AN 'IBM PC' (OR COMPATIBLE) WHICH WILL ENABLE THE PC TO READ/WRITE APPLE II DISKETTES

PLEASE 'PHONE JOHN YATES .....[illegible]

FOR SALE

Apple//e fitted with:
2 Apple 5.25" floppy drives & disc controller card
Honeywell green screen monitor
Grappler+ parallel printer interface card
Apple 64KB 80-col. card
Plus Ram 768KB
CP/M card
Word processor software
Applesoft Basic programming reference manual
.....**£280**

'Phone Phil (evenings) .....[illegible]

FOR SALE

APPLE IIGS COMPUTER SYSTEM
512K + 256K Expansion card, Apple 3.5" and 5.25" disc drives, Apple RGB colour monitor, ImageWriter II printer w/ colour ribbon, SystemSaver fan/surge protection.
SOFTWARE: Appleworks, Reader Rabbit, Math Blaster, Carmen San Diego, Print Shop, Designasaurus.
Purchased 1989 in U.S. for $3850. and used very little since .....**£950.00 (ONO)**

'Phone Gary .....[illegible]

FOR SALE

Apple IIe *
10.5 Megabyte Symbfile (Compact case type), complete with cards and discs to format to: Prodos 8/DOS/Pascal or CP/M/DOS/Pascal — Full manuals **£110**
Cards *
Z80 Softc with Manuals V2.0 .....**£25**
Super Serial Card & Manual **£45**
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IIe OWNERS MANUAL & Supplement **£4**
IIe DOS USERS MANUAL **£4**
IIe DOS PROGRAMMERS MANUAL **£6**
IIe 80 COLUMN CARD MANUAL with EXTENDED 80 COLUMN CARD SUPPLEMENT.....**£8**
APPLE II. THE DOS MANUAL **£4**
KAYPRO USERS WORDSTAR/MAILMERGE MANUAL**£5**
WORDSTAR GEN/REF/INST MANUAL **£8**
dBASE II USER/REF MANUALS (2 in set).....**£6**
dBASE II USERS GUIDE (SoftwareBanc) **£3**
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APPLESOFT II BASIC PROG. REFERENCE MAN.....**£4**
PASCAL PROGRAMMING BOOKS (3) **£9**
Programs *
COPY II PLUS 7.1 WITH MANUAL.....**£10**
APPLEWORKS TUTORIAL DISCS WITH MANUAL **£10**
THE TYPEWRITER - POWER UP.....**£4**
SIGN DESIGNER - POWER UP **£4**
BANNER BUILDER - POWER UP **£4**
Post inc. on all items

'Phone Eric (anytime) .....[illegible]

Attention SE/30, IIx and IIcx owners

Have you recently upgraded to system 7.0 and found that you can only access 14 Megs. of virtual memory?
You may ask, what is going on? I thought that my machine was a full 32-bit machine.
Well guess again, even though their literature touts the 32-bit architecture of these machines, Apple did not implement full 32-bit memory addressing in the ROMs.
The following letter is a call on Apple to issue an upgrade to the ROMs of these machines.
Please put your mane and address on the letter and send it to Apple.Thanks.
Reprinted from BMUG's Newsletter **see STOP PRESS**

Dear Sir or Madam:

Within the last month it has come to my attention that three Macintosh platforms: the SE/30, IIx, and IIcx were manufactured with defective ROMs. Apparently, these "dirty" ROMs are unable to address more than 8 Megs. of physical DRAM or 14 Megs. or RAM using virtual memory. Additionally, these flawed ROMs cannot take full advantage of software that uses 32-bit addressing.

I refer to these objectionable ROMs as "defective" and "flawed" because of Apple's own product descriptions and advertising. The technical specification sheets for all three Macs describe a "full 32-bit 68030 microprocessor" and a promise that, "when denser chips become available, the Macintosh (SE/30, IIx, IIcx) can be upgraded to 32 megabytes of RAM".

On page 88 of the IIcx Owner's Guide, Apple states that the IIcx is "...expandable to 128 MB when SIMMs with higher-density DRAM chips become available...". On page 42 of the same publication, Apple assure its customers that, "the registers, address bus, and data bus for the 68030 are all 32-bits wide... this means that applications written specifically to take advantage of the full 32-bit buses will run very fast".

In the next paragraph Apple goes on to brag that, "... because applications written for earlier models of the Macintosh computers expect only a 24-bit address bus, and because newer software for the Macintosh IIcx uses the full 32-bit addressing, the Macintosh IIcx functions in either a 24-bit or 32-bit mode". Product details for the SE/30 and IIx contain similar guarantees.

Software developers are now offering applications that exploit the 32-bit mode. Hardware developers are producing those higher-density SIMMs that break the 8 Meg. barrier. System 7.0 permits 32-bit addressing. But the "dirty" ROM in my machine denies me unrestricted access to these expanded memory benefits. Apple's current recommendation is that I purchase an INIT from the Connectix Corporation to patch Apple's deficient ROM. Aside from the expense, it is a thoroughly inelegant and unacceptable solution.

I elected to buy this Macintosh model specifically because of its purported inherent expandability. Apple's description of this Mac's 32-bit addressing capability was the chief inducement for my purchase of this particular platform. In reviewing Apple's statements touting my Mac's memory potential I find no language specifying or even hinting at an eventual third party software requirement to enable this computer's alleged memory features.

The April 30, 1991 issue of MacWEEK quotes an Apple official as remarking, "we already offer an upgrade path for the IIx and IIcx. Users who want clean ROMs can buy the IIfx or IIci upgrades for these machines". I sincerely hope that no one officially associated with Apple Computer, Inc. actually made such a cynical and legally preposterous statement. I find it hard to imagine that Apple Computer could genuinely adopt such an irresponsible position.

It is in my opinion that Apple's numerous and consistent statements concerning the SE/30, IIx, and IIcx's innate memory functionality in its promotional and technical literature constitute an express warranty that I and others similarly affected have a right to rely upon.

Naturally, I do not believe that Apple deliberately set out to swindle its customers. However, the company's sentiments, at least insofar as Assistance Center personnel are accurately expressing the corporate posture, do not appear to have my interests, or those of the representative class of owners of which I am a member, at heart.

Speaking for myself, I am not asking for a general product recall. But, I do respectfully request that Apple Computer, Inc. furnish me with a ROM substitution at its own expense that will empower my computer with the 32-bit addressing capabilities as promised in the company's promotional literature and technical manuals.

Thank you, in advance, for your prudent consideration of this request.

STOP PRESS! Apple users win!

Following the outcry in The States, because of 'dirty' ROMs in the Mac SE/30, II, IIx and IIcx (see above), Apple have been forced to act, and they have licensed a software solution called MODE32 (developed by Connectix).

This program was distributed in the UK through Computers Unlimited and it was featured in Apple's 'Software Specials'. Apple UK are now supplying MODE32 through its dealer outlets FREE — or from AppleLink, if you want to pay 'an arm and a leg' for the connection charge and 'phone bill and if you have the patience to find it.

If you have already bought MODE32, Apple UK stated that they will refund your money. Ask your dealer or your software supplier — they have the details. (You will need to produce the original disk and the supplier's receipt as proof of purchase.)

Mac II users will require an add-on 68851 PMMU (page management unit) to take advantage of MODE32, but this is not included in the offer so you will have to pay for it.

Users of the 'dirty' ROM machines will be able to run System 7 in 32-bit mode with the aid of this program, allowing access to as much as 128 Mbytes of physical memory (dynamic RAM) and up to 1 Gbyte of virtual memory. Future system software releases may include these facilities.

If you need further information or assistance, contact your local Apple dealer — or Apple UK (081 569 1199).

If you do not know where your nearest dealer is located, dial 100 and ask for FREEPHONE APPLE — they will be able to advise you.

September 1991

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
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October 1991

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November 1991

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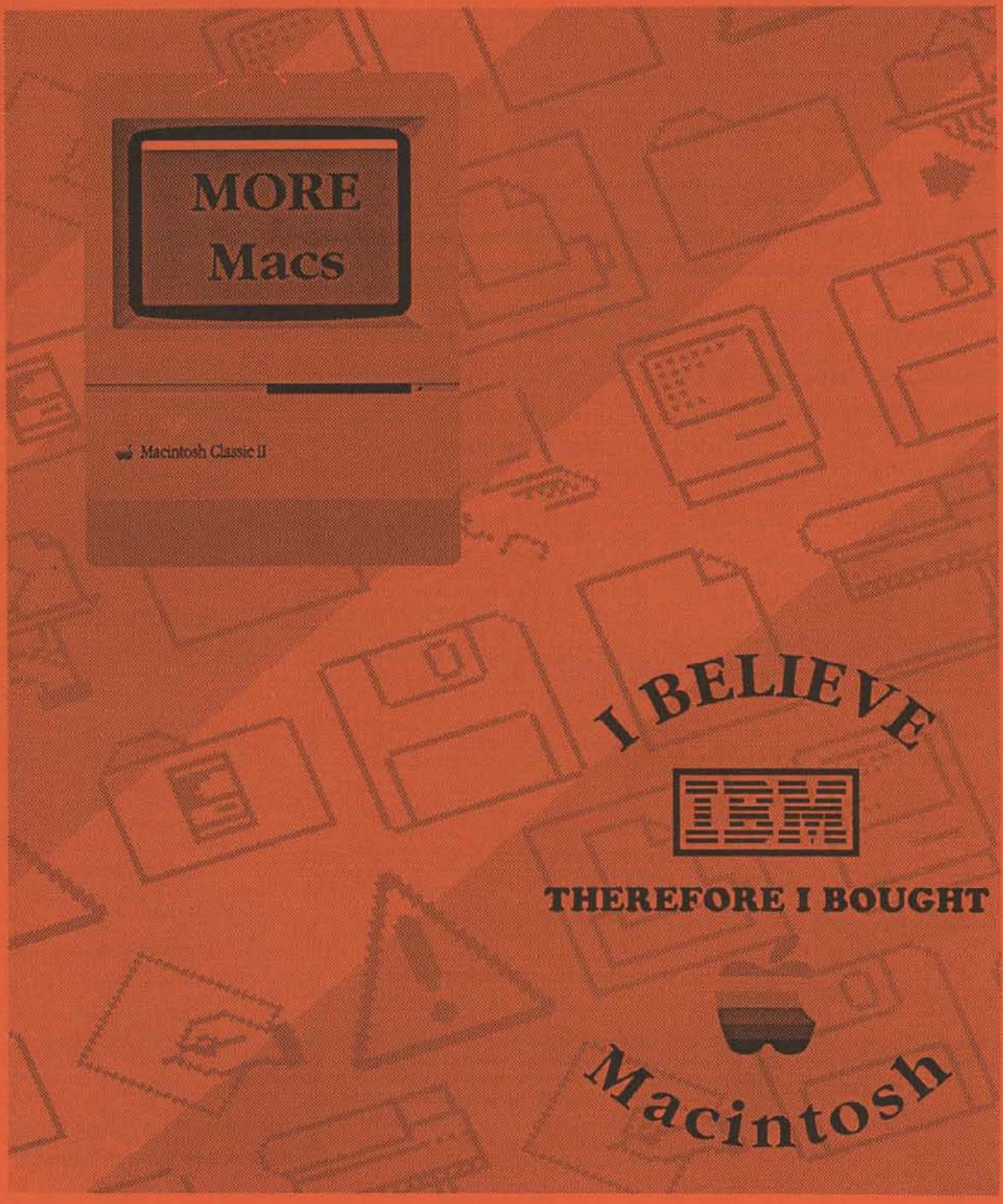
AppleSlices

November 1991

A bi-monthly Newsletter from Apple2000

Issue 26



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Apple II	Macintosh
Ewen Wannop	Norah Arnold
Elizabeth Littlewood	Irene Flaxman

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

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Apple2000 supports users of all the Apple computers. The **ITT 2020, I, II, II+, //e, //c, IIgs, ///, Lisa, XL, Mac 128, Mac 512, MacPlus, SE, SE/30, Mac II, IIcx, IIci, IIsi, IIx, IIfx, LC, Mac Classic** and **Portable.**

Contributions and articles for the Apple2000 magazine or Apple Slices are always welcome. We can handle any disk size or format. Please send to PO Box 3, Liverpool, L21 8PY.

MEMBER MUG NEWS SERVICE

USER GROUP CONNECTION

Our thanks to the MUG News Service and Aple's User Group Connection, for contributions to this newsletter.

Apple2000 P.O. Box 3 Liverpool L21 8PY ENGLAND

There are a number of ways to contact Apple2000

If you wish to order goods or services from Apple2000, or if you just wish to leave us a message, please call Irene on [illegible] (Ansafone during the day). Alternatively, you can send us a Fax. on [illegible]; or write to us at PO Box 3, Liverpool, L21 8PY.

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 will try to help you.

We are very interested in the activities of local user groups. If you have any information which you would like publicised, 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. We'd be especially interested to receive any suggestions about what you would like to see in **your** magazines and newsletters.

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Administration
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Macintosh Hotline
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Voice [illegible]

Local Groups
John Lee
Voice [illegible]

TimeOut & Prosel
Ken Dawson
Voice [illegible]

AppleWorks
John Richey
Voice [illegible]

IBM Hot Air

The Feedback column by "Mole" in PC Week 6.8.91 states (although I don't believe that the first para helps!):

o Bearing in mind the £150,000 damages won by Tory MP Teresa Gorman in the libel case against aptly-named millionaire Anthony Mudd, Microsoft may well be advised not to repeat its latest stunt over here.

News reaches Mole of a document issued by Microsofties in the US purporting to be an IBM press release. The "release" states that each of IBM's 350,000 staff must negotiate a strategic alliance or buyout of another firm before the end of the year.

"While this means that IBM must conclude 1750 acquisitions and agreements every business day, IBM executives are pleased with the progress being made. Said one executive, 'Just yesterday we signed more that 150 strategic agreements with Apple Computer.' When pressed for the true significance of these agreements, the IBM executive said 'Look, watering John Sculley's plants when he's out of town is important stuff.'"

Contributed to Apple2000 by D Blackburn

New Mac Bulletin Board

There is a new independant Bulletin Board in Birmingham which supports the Mac as well as other computers.

The name is Amlink and it runs on a courier HST dual standard modem (so supporting high speed data transfers).

Amlink can be reached on [illegible]

Library II Disk Problem

In the recent library update we released four disks (Nos. IIGS 50-53) with the complete series of Apple II technical notes. One of our members had a problem reading some of the files and investigation showed Apple had made a gigantic boob!

Some of the files, even though all have a simple text format, had resource forks. The data in these forks was presumably the data from its original Mac word processor file as it will not read using a IIgs resource editor. Under ProDOS 8 the file reads incorrectly as the spurious resource fork will give read errors even though the file is a text file type.

Luckily, nearly all the files affected are IIgs tech notes and so will normally only be of interest to IIgs owners. The files will read correctly with any program that reads text files under GS/OS. If you can read the files, delete the old ones and write the data back as a new text file, you will cure the problem once and for all.

We shall work through the library disks in this way ourselves. If you still have problems, return your original disks and we shall copy a fresh set of files on to the disks for you.

Letter Box

[illegible]

Dear Apple 2000,

I am writing to warn other System 7 users of a problem which can occur when using aliases. Since I got my LC last month I have filled it with programs from free disks with Macintosh magazines and also created several large sound files. The result was that the hard disk held 20 Mb and only about 5 Mb of that was necessary. So I decided to format the hard drive, reinstall System 7 and then only copy a selection of files back on in a more organised way. I had all of my MacWrite II files in a folder inside the MacWrite folder, so I had created an alias of this folder and put it on the desktop allowing me to open files quickly. Having become used to using this alias, when I backed up the files I simply put a disk in the drive and dragged the alias icon onto the disk icon. Surprised as how quickly it had copied so many files so quickly I opened the disk icon and the folder and was impressed when I saw all of my files there. So I started work formatting the hard drive, installing system 7 and came to copying my files back onto the hard drive. I copied the folder onto the hard drive, and then wondered why the icon still had writing in italics. I tried to open the folder and got the message that the alias could not be opened as the original item could not be found. I realised that it had only copied the alias file itself and not the files which the alias represented, and when I opened the alias on the floppy drive it had simply accessed the information still on the hard drive. I had lost several hours of revision notes which I hadn't had a chance to print out as I spent all of my money on the LC and hadn't yet got a printer! Perhaps this warning will prevent other members having the same problem. Maybe in future versions of System 7 Apple could give you an option of copying either the alias or the files represented by the alias.

Jonathon Shippham

[illegible]

Dear Editor,

1) Can some, at least, of Apple][peripherals be used on Apple //e by means of a suitable adapter (female 16-pin to male 9-pin D)? If so, could you tell me of an outfit that could make one up for me (I can supply a 16-pin games socket)? My soldering iron days are many years in the past.

2) As I expect you have found out, A4 documents (such as this one) print off-centre on the StyleWriter

because System 6.0.7 insists that the width of an A4 sheet is 200mm, instead of the correct 210mm.
R.A. Fairthorne

❑ Item one is easily answered. Yes indeed, you can use Apple II peripherals on the //e. You can of course use a convertor as you describe, but it is much easier simply to open the //e and plug into the internal games socket as you did on the Apple II. You will find the empty games socket (usually white) at the back of the motherboard by the video socket.

Secondly, you too have found the (deliberate?) bug in the StyleWriter driver that prints off centre. Apple have just released a new version of this driver which corrects the problem. It also has background printing as a bonus when run under MultiFinder. You will be able to get a copy of this driver from your local Apple dealer.
The Editor

[redacted]

Dear Sir,
Re: Loading fonts via System 7.0 and Word Finder DA with Word 4.0

I have recently updated my Mac LC by adding 2 1mb SIMMs and System 7.0. In general I am delighted with the upgrade and consider it to be an improvement.

I have experienced tow losses however. The first is that I kept a number of fonts on disk which I loaded with the Font DA Mover when I needed them. Now that System 7.0 is installed I find that I cannot access a number of fonts which are font suitcases. When I open up the suitcases I get no information in the dialog box. Is there a way to open up these fonts and get them into the System 7.0's system file? I'm thinking in particular of the fonts that I got from Apple2000 as part of their public domain catalogue.

Secondly, I was interested in the comment in the August magazine about the Word Finder DA which came with Microsoft Word 4.0. However hard I try I cannot get the advice given to work. Can you please give some simple explanations of the above problems to users like me?
Ian Yule

❑ The simple answer to both your questions is to use Font DA Mover 4.1. This is the latest version of the program and is System 7.0 compatible. Apple did not release this at first because it thought it would not be needed. As you have found there are some fonts and other items which just will not install the way they are meant to. Font DA Mover 4.1 handles them all with ease!

I found that some fonts from Lexitrope would not open and drop into the System as they should with System 7.0, and also some fonts that had been packed with Font Valet would not open. Font DA Mover 4.1 copied them all into the System without any problems.

Font DA Mover 4.1 is available from your local dealer, or from TABBS if you have a modem.
The Editor

[redacted]

Dear Editor,
Pen-based computing. An idea by Douglas Adams

I am intrigued and amused by the trend towards pen-based computers. It is only a matter of time before we have electronic books dedicated towards pen-based computers. Imagine a business traveller consulting with his "clipboard" computer on the entertainment spots in Istanbul. Doesn't that remind you of that chap in Douglas Adam's "The Hitchhiker's Guide to the Universe" consulting with that first portable notebook computer that has those soothing words 'Don't Panic!'. It certainly beats 'Abort, Retry, Fail?' as a comforting message.

Well, the next best thing in palmtop computing on the Macintosh or Apple II side is the Agenda from Microwriter plc. I do like the Z88 for its Pipedream integrated software but the Microwriter is useful for the occasional bibliographies. You could set up the font and style of the literature references and when you return to your Macintosh to upload your work, say in Microsoft Word, it generates all the fonts, point size and style. The best part, you can download your bibliographies back and forth between the Macintosh and Agenda using the Microwriter's MacPack utility.

I am testing out the HyperCard scripts Microwriter provide to develop your own HyperCard applications with the Agenda as your portable Mac applications. It is a pity they do not have such a package for the Apple II!
A. M. Merican

[redacted]

Local Group Wanted

Local User Group in Brghton (BMUG)
By Mike Dawson

In response to my committee self portrait in the August magazine I received a letter from John Pickett of Brighton.

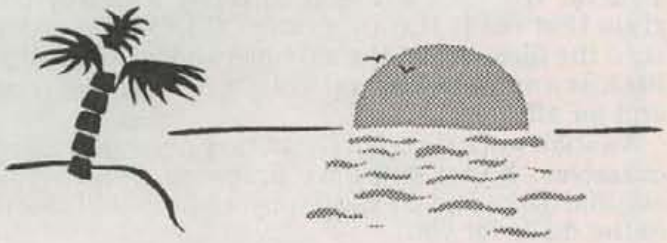
John kindly gave me a contact address for a base of Mac users at the Brighton Polytechnic. He also requested that a local user group be started in his locality.

Unfortunately John has an illness that makes him tire easily and therefore cannot undertake to run such a local group. He does, however, express a willingness to be an active member and seems to offer a variety of programming skills but professes that he has a lot to learn too.

John has agreed to the publishing of his home telephone number and is willing to act as a focal point to get the user group started. After that it will be for others to take over.

If you are interested in starting or participating in a Brighton local user group then please contact John on [redacted]

[redacted]



Empowerment Has A Long Way To Go

by Denise Caruso

I spent a long lunch earlier this week with someone who believes that the "trickle-down" of computers into ever-deeper levels of society has played an enormous role in personal empowerment.

Ever the cynic, I don't quite believe it. But there is much evidence to support his argument. The PC-telephone line-modem combination has both created and connected a vast online community of people who were once unable to find each other, much less pool resources and/or exchange information. The most dramatic example is still the Tianamen Square massacre in China, where university students linked to electronic mail systems were able to report on the student uprising despite a heavy news blackout.

In this country, a growing number of electronic bulletin board systems connect local governments with their constituents. Alternative news services can pour information directly into a personal computer from around the world. Such reports, from Central America and the Persian Gulf, paint very different pictures from those delivered via mass media.

There's also plenty of online activism taking place. Users of online systems are becoming legend in their ability to mobilize around particular issues. And let us not overlook the power of desktop publishing, which has made it economically feasible for almost anyone with a cause to publish and distribute polemics on any subject they choose.

This is certainly empowerment, and it is a good thing. But at the same time, it's easy to forget that despite the plummeting cost of computer technology, PCs and modems are still not only a luxury, but because we haven't shown them differently, they're completely irrelevant to most people in this country and in the world.

And eternal vigilance against government regulation is still required from those for whom technology is relevent. Strong opposition by business leaders and right-to-privacy advocates recently made the FBI back down on proposed legislation which would have made it virtually impossible to protect electronic communication via cryptography.

But the problem runs deeper, apparently even into the technology community itself. During the past few weeks there has been a raging debate on the Internet about an article in the November 1990 issue of "Communications of the ACM," titled "Women and Computing" — it explored, among other things, what could be done to encourage women to become computer scientists.

Some argued that the field itself needs to be reformed — that computer science education should be more academically rigorous, based on formal mathematics and logic rather than on early exposure to the computer. But Danielle Bernstein of the Kean College of New Jersey was cited in the article as saying that argument is "sexist."

Why? Because, she says, women prefer experimentation and teamwork to solitary, abstract thinking.

I'm appalled to hear a woman say that there is something fundamentally different about the way her mind works. It brings to mind the equally gagworthy argument about "black people's brains are smaller, that's why they aren't as smart as white people."

Certainly learning teamwork is a good thing, but I hardly think it has anything to do with genetic coding. As one (man) said in the online argument, "If female students are told from the womb that mechanical and logical studies are not relevant ('you're a girl, you don't have to learn that'), they'll oblige ... and in the long term have a larger barrier to overcome."

Slanting a system to get so-called minority groups through it is, as he said, "insulting, demeaning, and is the root cause, not the solution" to the widening gap between mainstream and so-called "minority" students (women are, for example and after all, more than 50 percent of the population).

Attacking the problem after it gets to the workplace, or even the university for that matter, is the wrong place to start. The power that ordinary people have gained by learning to use technology has been mostly a bootstrap operation by people with great motivation to do so. They saw a source of power and finagled a way to get their hands on it.

But just think how much farther we could go, how many more idiotic assumptions about women and minorities and civil rights we could challenge, if we chose to educate everyone equally. There is nothing noble about having to fight for the power one gains by an unbiased education. In a democracy, that's supposed to be part of the deal. The challenge should be how to use that power, not how to get it.

1991 User Group Advisory Council SUMMARY REPORT

July 14-17, 1991
San Jose Fairmont Hotel
Apple Cupertino Campus

On July 14-17, 1991, Apple conducted its sixth annual User Group Advisory Council (UGAC). As Apple's only end user Advisory Council, UGAC provides a rare opportunity for Apple to gain customer insight and industry perspective.

Sixteen individuals (leaders from 14 User Groups and 2 Professional Associations) were selected to represent approximately 400,000 Apple computer users in Apple's education, corporate, government, and community environments throughout the United States.

Advisory Council members are selected to present a broad cross-section of end-user insights, and the 1991 Council was particularly well-balanced in representing novice and advanced users, different geographies, diverse interests, the entire Apple product line, and all Apple markets. (A list of Council participants and the User Groups and market segments they represent has been included at the end of this report.)

The four-day conference was organized and sponsored by Apple's User Group Connection, whose purpose is to provide User Groups with a formal channel of information exchange at Apple. Objectives for the Council included assessing current end user opinions, ideas, and needs, and directing this input to the appropriate parties at Apple.

Discussion topics included:

- evaluation of the User Group Connection program over the past year
- development of future User Group programs and relations
- feedback on Apple's marketing, distribution, and channel strategy
- discussions with Apple's Product Development Team (CPUs)
- evaluation of Apple programs in customer service and support

Overview

There are approximately 1400 User Groups currently registered with Apple's User Group Connection. Of these, approximately 56% represent Community User Groups (users based in communities, many of whom are small business owners and educators); 20% Education (K-12 and Higher Ed, representing students, faculty and administrators); 13% Corporate; 6% Government; 2% National; and 3% Other.

By Apple product affiliation, 54% have Macintosh-only members; 12% have Apple II-only members; and 34% have both Macintosh and Apple II members.

Three-quarters (75%) consider themselves to be Apple evangelists, 94% have influence in buying decisions in their organizations, and 66% talk to their friends and associates about Apple computers on a daily basis.

TRENDS AND KEY ISSUES

Several key themes emerged during the 1991 Council, including:

- **SALES OR SUPPORT?** Apple's 800# directed 30,000 end users to User Groups for support last year. Groups want to know Apple's perspective on their role: are they a support tool, a marketing partner, a combination, or something else?

  Council members readily admitted that they also had no clear-cut answer to this question, but felt that a mutual understanding on this issue is important to successful work in the future.
- **SUPERSTORES.** Apple's shift to market share strategy and superstores is sending a surge of inexperienced individuals to User Groups for pre-sales advice, training, and support. User Group resources are being strained, and groups seek a dialogue to define their role in Apple's changing distribution plans.
- **INDUSTRY ALLIANCES.** As Apple creates alliances in the industry, particularly with IBM, User Groups want to receive information so they can better understand Apple's plans and communicate them to their members and employers.
- **JUSTIFICATION OF IN-HOUSE ACTIVITIES.** In-house User Groups face challenges in explaining the value User Groups bring to their companies, and the value that Apple provides their company through User Groups.
- **32-BIT-CLEAN ROMS.** Users view Apple as indifferent to their needs for Apple-branded ROMs, and find external solutions unreliable. They read this as a lack of commitment to established customers.
- **BUSINESS/EDUCATION ALLIANCES.** Education-based User Groups feel that alliances with key business customers could be powerful for both. Groups also feel Apple underestimates the potential of the pre-K market.
- **ADDITIONAL VENDOR SUPPORT.** Groups want Apple to take an active role in influencing other vendors to provide outreach to User Groups.
- **INFORMATION DISSEMINATION.** Groups urged the User Group Connection to expand the dissemination of information to User Groups and end users, particularly via CD-ROM and online. Council members encouraged a Connection presence on Internet, particularly since Macintosh activity is very high there.
- **EXPANDED RELATIONS WITH APPLE'S FAMILY.** User Groups seek to expand their relations with other Apple-related groups and Professional Associations. They also want to explore the synergy of working with IBM User Groups.
- **APPLE'S COMMITMENT TO USER GROUP RELATIONS.** Council participants feel that the User Group Connection provides a valuable service to the User Group community and wants Apple to confirm its commitment to User Group relations by ensuring no further reductions in Connection staff. UGAC members also sug-

gested that Apple explore a financial model linking the Connection budget to product sales.

RECOMMENDED ACTIONS

The User Group Advisory Council recommends that Apple focus on the following areas in the coming year:

1) LEGITIMIZE END USER SUPPORT.

User Groups offer the "first line" of Apple support, and User Groups need ongoing access to technical and training materials. User Groups seek access to training materials and technical CD-ROMs that are distributed to other segments of the Apple community. Direct access to technical support on AppleLink should be improved, with some free online time available to each registered User Group.

2) EVANGELIZE USER GROUPS IN THE APPLE FIELD OFFICES.

Apple needs to bring Apple's connection closer to User Group participants via improved access to local Apple people and programs. Regional User Group activities are gaining in importance, and Apple should institute stronger incentives for field representatives to be responsive to relations, events, and marketing opportunities with User Groups.

3) CLARIFY SYSTEM SOFTWARE SEEDING AND LICENSING, AND THE FUTURE OF HYPERCARD DISTRIBUTION.

User Groups are frustrated by the disparity in Apple's messages about system software. User Groups feel they offer a valuable service to Apple customers by providing system software. Groups want Apple to be consistent and clear in their policies, and to make sure the policies are widely broadcast in a timely manner.

4) PROVIDE AMMUNITION TO HELP USER GROUPS PROMOTE APPLE IN-HOUSE, PARTICULARLY IN MULTI-PLATFORM ENVIRONMENTS.

User Groups in workplace settings are willing to promote Apple products, but seek resources from Apple to present their case effectively. Materials including research and statistics can help User Groups champion Apple products in-house. In light of the potential of the Apple/IBM alliance, these materials will be particularly valuable to User Groups in multivendor environments, as they will be faced with many questions.

From Apple: UGAC

USER GROUP
CONNECTION

Apple Announces

APPLE LAUNCHES POWERBOOK, QUADRA & CLASSIC II

Apple Computer UK Ltd have introduced products in the key high-growth market segments of entry level, portable, and high end personal computers.

The announcement included: Macintosh Quadra — new high performance computers; Macintosh PowerBook — new trend-setting notebook-sized computers; and the Macintosh Classic II computer — a more powerful version of the company's best selling CPU, the Macintosh Classic.

Apple has broadened its Macintosh product family to compete in two of its highest growth potential segments — portable and large organisational computing.

The announcements also build on Apple's traditional strengths in computing for individuals and tools for designers and publishers.

"A year ago, we said that Apple's goal would be to aggressively move Macintosh into mainstream computing," said Mike Newton, Apple UK managing director. "During the last 12 months, we have taken significant actions to do just that. We have introduced lower cost Macintosh computers, delivered System 7, introduced innovative scanners, printers and networking and communications products, and signed a technology agreement with IBM which boosts Macintosh integration into large organisations. Today's announcements mark the next major step in our determined efforts to deliver on this goal."

Macintosh Quadra Line

Apple introduced two personal computers that represent the company's largest single jump in computing performance since the introduction of the Macintosh II in 1987. The new Macintosh Quadras are Apple's highest performance computers ever and deliver powerful easy-to-use technologies. The Quadra computers, built around the latest Motorola 68040 microprocessor, are also among the highest performance computers in the PC industry.

The new top-of-the line Quadras consist of two models — the Quadra 700, a high performance desktop Macintosh, and the Quadra 900, a high performance, "tower" design built with configurability and expandability in mind.

Macintosh Classic II

The new Apple Macintosh Classic II computer builds on the success of the fastest selling computer in Apple's history. The Classic II extends the capabilities of the original Macintosh Classic by incorporating more advanced features—greater performance, virtual memory support under System 7, more memory expansion, and sound input capabilities—while still maintaining affordability. It also offers customers who buy Macintosh Classic today an upgrade path for the future.

The Classic II has the same all-in-one design as the original Classic, with a number of higher performance features. Most notably, it is based on a 16MHz Motorola 68030 microprocessor. This provides double the performance of the Classic and gives users the power to run the most sophisticated applications.

Macintosh PowerBook Line

Apple announced a new line of notebook-sized systems called the Apple Macintosh PowerBook. Equipped with all the traditional Macintosh features, each of these three new computers is designed to be convenient enough to fit in a briefcase, powerful enough for the most demanding computing tasks, and affordable enough for a wide range of users.

The line comprises the PowerBook 100, PowerBook 140, and PowerBook 170. All share several common characteristics. Most notable are the ergonomic advantages, which include an integrated trackball and palm rest, full-size keyboard, easy-to-read full page-width screen, and tilt adjustments.

All the new products will be on show at the MacUser '91 exhibition in Olympia, London from 30th October to 2nd November.

AppleShare Server 3.0 and AppleTalk Remote Access

Apple has also announced two new networking products today — AppleShare Server 3.0 (£899 from December) and AppleTalk Remote Access (£160 - December).

AppleShare Server 3.0 is a new version of Apple's server software for the Macintosh that meets the security, performance, and multitasking requirements of larger workgroups and departments within large organisations. It provides access to centralised shared storage for up to 120 concurrent users and queued access for up to five network printers.

AppleTalk Remote Access software enables individuals, with no technical knowledge, to gain remote access to all their desktop or company network services using standard telephone lines and modems.

Brown Boxes

With the new products the company is introducing brown packaging boxes! Apple has traditionally shipped its products in white boxes but is now moving over to more environmentally friendly materials. By switching to brown (kraft) cardboard boxes from Apple's traditional white, bleaching agents used in the manufacturing process are eliminated. In addition, the switch allows Apple to include significantly more recycled fibre in the box liners than is possible with white boxes.

Macintosh PowerBook 100: How it Differs from Macintosh Portable

The Macintosh PowerBook 100 is the entry-level notebook Macintosh. It has many of the features of the Macintosh Portable, but in a lighter and smaller enclosure. The main differences are that the PowerBook 100 does not have a processor direct slot, ROM expansion slot, internal floppy drive, nor an external modem serial connection. The display is Supertwist instead of active matrix display.

The Macintosh PowerBook 100 has a new feature, SCSI disk mode. This mode allows another Macintosh to mount the internal hard disk drive. This mode requires a special SCSI disk mode adapter. The ROM contains the firmware for this mode. No other Macintosh has this feature.

The basic performance is the same as the Macintosh Portable. This is approximately twice the performance of a Macintosh Classic.

Apple Announces

Macintosh PowerBook — Special Offers

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As a person who uses an Apple Macintosh you know the very real improvements a Macintosh can make to your personal productivity.

So imagine how much more you could achieve if you could carry your Macintosh around with you — using it as home or on the move, in a hotel, on a train, an aeroplane or in a customer's office. The fact is, until recently you could do almost anything with a Macintosh except carry it around in your briefcase with you. Power, flexibility, connectivity, ease of use — Macintosh as you know, boasts them all. Now it's truly portable too !

With the Macintosh PowerBook you can enjoy all the benefit of a Macintosh — and more. Because PowerBook gives you the power and the freedom to work how you want, where you want, and when you want. In short, you can make better use of your time. Time that might otherwise be wasted. Many portable computers have to sacrifice power and performance for size and weight, not the PowerBook. And with its full page-width display and standard sized keyboard, it's as comfortable and easy to use as your desktop Macintosh.

You'll find no compromise on connectivity. The PowerBook has built-in networking capability and can communicate with Macintosh, MS-DOS and other computer systems. It also has a SCSI port for connecting standard Macintosh peripherals such as printers, scanners, etc. Yet, it can weigh as little as 5.1 pounds, and measure from just 8.5 by 11 by 1.8 inches. Macintosh PowerBook, when you see one, you'll want one.

With extensive training from Apple, you can rest assured that Apple Authorised Dealers know what they're talking about — which is one good reason for choosing to buy your Macintosh PowerBook from an Apple Authorised Dealer. Here are three more good reasons: If you by a Macintosh PowerBook before Dec.20th, 1991, subject to certain qualifications, you are eligible for all of the following special offers:

1. Free Extra Year's Warranty* Buying from an Apple Authorised Dealer ensure you of fully-trained support and backed by an additional one year's AppleCare Warranty, you are guaranteed worry-free operation, to go with you new found freedom.

Even if you have a problem and you are not near your local dealer, you can go to the nearest dealer to where you happen to be at the time and your warranty will be honoured.

This offer is to anyone who buys a Macintosh PowerBook from an Apple Authorised Dealer at list price, and represents a saving of at least £110 (off Suggested Retail Price).

2. Free AppleTalk Remote Access software when buying an Apple Fax/Data Modem Being able to link directly into an AppleTalk network from a telephone socket anywhere in the world is one of the powerful benefits added to you new Macintosh PowerBook by the new AppleTalk Remote Access Software.

The offer is to anyone who buys a Macintosh PowerBook and the optional Apple Fax/Data modem and represents a savings of £160 (off Suggested Retail Price).

3. Half Price Carry Cases Choose from three specially commissioned designs. Your new Macintosh PowerBook looks stylish and produces really stylish results. Keep it looking as good as new in one of these Designer Carry Cases which don't just look good, but work hard to keep you PowerBook in peak condition.

This offer is to anyone who buys a Macintosh PowerBook and is worth up to £20 (off Suggested Retail Price). So take some time to visit your local Apple Authorised Dealer and test drive the new Macintosh PowerBook now on display. Once you see one, you'll want one.

** Note: Offer applies to purchases made before Dec 20th 1991 from Apple Authorised Dealers. Purchases made at educational and developer discounted prices are not eligible.*

APPLE INTRODUCES ADVANCED MACINTOSH CLASSIC II

Apple Computer UK Ltd have announced the new Apple Macintosh Classic II personal computer. The Classic II (from £1,145) extends the capabilities of the original Macintosh Classic — incorporating more advanced features: greater performance, virtual memory support under System 7, more memory expansion, and sound input capabilities — while still remaining affordable. It also offers customers who buy Macintosh Classic today an upgrade path for the future.

The Macintosh Classic II will be showcased at the MacUser Show at Olympia from 30 October to 2 November.

The Classic II has the same all-in-one design as the original Classic, yet features a number of higher performance features. Most notably, it is based on a 16MHz Motorola 68030 microprocessor. This provides double the performance of the Classic and gives users the power to run sophisticated applications. Also the 68030 chip supports System 7's virtual memory feature so users can run more powerful applications without buying more memory.

The Classic II is expandable up to 10MB. It also incorporates an internal, on-board connector to support a floating point mathematics coprocessor for users who need more number crunching power. And finally, a microphone with sound input capability, allows users to easily add sound or voice comments to documents.

The Classic II has numerous built-in capabilities. These include AppleTalk networking, which allows customers to easily connect their systems to other computers, printers, and file servers; a SuperDrive high density floppy disk drive that reads, writes, and formats Macintosh, MS-DOS, OS/2, and ProDOS disks; Small Computer Systems Interface (SCSI), which lets customers easily add peripherals to their systems such as printers, scanners, CD-ROM drives, and external hard disks; Apple Desktop Bus (ADB), which gives customers a standard way to connect a keyboard, mouse, trackball, modem, and graphics tablet; and sound output, which lets customers play back voice messages or sounds.

It is easy and affordable for the hundreds of thousands of current Classic customers to upgrade to the Classic II. The upgrade will include a dealer installed logic board with 2MB of RAM, microphone, system software and complete documentation. The Macintosh Classic remains in the product line as the most affordable member of the Macintosh family.

The Macintosh Classic II will be available in late November through Apple Authorised Dealers. The Classic II comes equipped with system software, mouse, keyboard, microphone, training software, and a one-year limited warranty. *For customer information dial 100 and ask for Freefone Apple.*

Apple Announces

Apple Macintosh System Software 7.0.1

Macintosh System Software 7.0.1 is a hardware support release for Apple's new Macintosh PowerBook 100, 140, and 170, the Macintosh Quadra 700 and 900, and the Macintosh Classic II personal computers.

Significance: In May, Apple introduced Macintosh System 7.0, the most significant enhancement to Macintosh since its introduction. System 7 has been widely accepted with over one million users worldwide currently using the new system software. The product quality and third-party application compatibility of System 7 has been very high.

System 7.0.1 supports the new Macintosh PowerBook 100, 140, and 170, the Macintosh Quadra 700 and 900, and the Macintosh Classic II personal computers, also announced. This new release contains only software changes from System 7.0 necessary to support the new Macintosh CPUs and is not a recommended upgrade for the current installed base of Macintosh users.

The changes made in System 7.0.1 to support the new Macintosh CPUs include updates to the virtual memory feature and Standard Apple Numeric Environment (SANE) for the Quadra 700 and 900. In addition, new control panel versions have been added to support the new computers.

System 7.0.1 runs on a Macintosh computer with at least two megabytes (MB) of random-access-memory (RAM) and a hard disk. In the minimum configuration, users can run one application at a time with no system extensions. Users who want to use multiple applications at once or use several system software extensions should either use the Virtual Memory feature (available on the PowerBook 140, 170 and Classic II) or add additional memory to their computers. Users with a Macintosh computer with a 68030 or 68040 microprocessor can use the Virtual Memory feature. Macintosh computers running 7.0.1 can transparently co-exist in networked environments with Macintosh System Software versions 7.0 and System 6 using the updated System 7 printing software.

Availability: System 7.0.1 is available immediately in the United States. Availability elsewhere will vary on a country by country basis. For customers' convenience and consistency, all newly manufactured Apple Macintosh computers in the U.S. will include this version of system software starting in the next few weeks. In addition, Apple will include System 7.0.1 with the System 7 Group Upgrade Kit to continue to provide network administrators with all releases of system software.

System 7.0.1 does not offer any significant advantages or changes from System 7.0, so the System 7 Personal Upgrade Kit will not be updated. Customers upgrading to System 7 can do so by purchasing the Personal Upgrade Kit containing System 7.0. System 7.0.1 has already been distributed to subscribers to the Macintosh System Software Update Program.

System 7.0.1 is also available through all authorized Apple resellers, U.S. user groups, AppleLink and other electronic bulletin boards. The software and manuals for the System 7 Group Upgrade Kit, including version 7.0.1 on the CD ROM.

APPLE EXTENDS APPLETALK PRODUCT FAMILY

Apple Computer UK Ltd have announced three new communication products — AppleTalk Remote Access, AppleShare Sever 3.0 and the Apple Token Ring 4/16 Card.

AppleTalk Remote Access

AppleTalk Remote Access software enables individuals, with no technical knowledge, to gain remote access to all their desktop or company network services using standard telephone lines and modems. Once connected users will be able to do everything remotely that they would normally do locally.

"This will be particularly valuable to people, such as field workers, who while working away from their office need to update desktop or departmental files, use local electronic mail or print to local printers," said Steve Everhard, marketing manager, networks and communications at Apple Computer UK. "They will feel part of the local computer set up whether they are in the next town or the other side of the world".

The new product, an extension to Macintosh System 7, includes a dial-out and answering service in a single program, five levels of security to protect against unauthorised access, and best performance across a variety of industry standard modems.

AppleTalk Remote Access can also be used to connect to any other Macintosh computer running System 7, and once connected, use the file-sharing feature of System 7 to access the remote computer's files.

AppleTalk Remote Access Protocol (ARAP), is a set of specifications by which independent software developers can create remote access servers compatible with AppleTalk.

Apple also announced that three additional networking vendors have become licensees of AppleTalk — IBM, Microsoft, and Banyan Systems. They join Go Corporation, Adobe Systems, Novell, Digital Equipment Corporation, Farallon Computing, Miramar Systems, Asanté Technologies, Pacer Software and Tandem Computers and Data General.

AppleShare Server 3.0 for Enterprise Customers

AppleShare Server 3.0 is a new version of Apple's server software for the Macintosh that meets the security, performance, and multitasking requirements of larger workgroups and departments within enterprises.

AppleShare now provides access to centralised shared storage for up to 120 concurrent users and queued access for up to five network printers. In addition, because AppleShare Server 3.0 supports the multitasking feature of System 7, a Macintosh can run AppleShare simultaneously with other server software and applications. AppleShare 3.0 Server also has open Application Program Interfaces (APIs) to allow third-parties to extend the AppleShare server's capabilities by offering enhancements such as server backup and accounting packages running on the same Macintosh server.

AppleShare Server 3.0 continues to feature easy installation and administration, and now has increased password protection, server administrator messaging, application launch-count control, copy protection and print spooling

Apple Token Ring 4/16 Card

Apple Token Ring 4/16 Card, a bus master card based on Apple's MCP architecture. It allows Macintosh computers to connect to industry standard token ring networks at either 4 Mbps or 16 Mbps, switchable in software. This card uses IBM's Token Ring chip set to guarantee compatibility with all other Token Ring devices, and is the first product from the Apple/IBM Alliance.

This card supports TokenTalk, for AppleTalk over Token Ring, SNA protocols through Apples SNA•PS gateway products. This product replaces Apple's TokenTalk NB card.

Pricing and Availability

All products will be available from December 1991 from Apple UK Authorised Dealers.

AppleShare Server 3.0 will be available for a manufacturer's suggested retail price of £899. Owners of AppleShare File Server 2.0 or File Server and Print Server can upgrade — price on application.

AppleTalk Remote Access is available for a manufacturer's suggested retail price of £160. The ARAP specifications are available through APDA, Apple's source for developer tools, for $30 US. For ordering information, developers should contact APDA 0101 408-562-3910.

Apple Token Ring 4/16 Card - price on application.

Apple (U.S.A.) Battery Recycling and Disposal Program

With the introduction of the new Macintosh PowerBook notebook-sized computers, Apple is announcing a new program that allows customers worldwide to return used computer batteries to Apple for appropriate recycling and disposal. "The program is one of the ways Apple is taking responsibility for the environmental consequences of its products," said Erin Craig, manager of Apple Environmental, Health and Safety Business Integration.

After about two years of use, rechargeable batteries such as the ones used in Apple's portable and notebook computers will expire.

These batteries contain heavy metals—lead or cadmium—which should not be disposed of in landfills or incinerators. Customers can now return spent Apple batteries to any Authorized Apple Service Provider. Depending on the local arrangements or government ordinances, Apple service managers will handle the batteries or send them to one of Apple's worldwide service centers. In either case, the batteries will be recycled and properly disposed of according to the environmental guidelines appropriate for the particular battery.

Once the battery has been returned to an Authorized Apple Service Provider, Apple will absorb all costs related to its handling and disposal.

Apple's corporate policy pledges the company to do business in a manner that conserves the environment and protects the health and safety of its employees, customers, and the communities in which it operates. Apple believes that a comprehensive environmental, health and safety program is an essential component of its business approach. Current corporate activities include extensive product grants to environmental groups, internal recycling, a worldwide chlorofluorocarbon reduction policy, and offering employee environmental volunteer and education programs.

APPLE MACINTOSH QUADRA LINE

Apple Computer UK Ltd have introduced two personal computers that represent the company's largest, single jump in computing performance since the introduction of the Macintosh II in 1987. The new Apple Macintosh Quadra line of personal computers represent Apple's highest performance computers ever and deliver powerful technologies made easy-to-use.

The Quadra computers, built around the latest Motorola 68040 microprocessor, are also among the highest performance computers in the PC industry. In a recent performance benchmark study conducted by Ingram Laboratories, a subsidiary of Ingram Micro, the world's largest distributor of microcomputer products, the Macintosh Quadra 900 was rated the fastest computer against 80386- and 80486-based PCs.

The new top-of-the line Quadras consists of two models—the Quadra 700, a high performance desktop Macintosh, and the Quadra 900, a high performance, "tower" design built with configurability and expandability in mind.

All the new products will be showcased at the MacUser Show at Olympia from 30th October to 2nd November.

"Our goal is to move Macintosh into the mainstream of personal computing in organizations of all sizes. With the introduction of the Quadras, we've taken yet another significant step towards fulfilling the needs of customers in large computing environments—whether in government, education or business," said Nigel Turner, product marketing manager — high end systems. "The Quadras offer new levels of performance, connectivity, and expandability while retaining all the ease-of-use features Macintosh customers have come to expect. With the Quadras' leading edge technologies, we'll reach new customers who consistently demand the highest performance from their computers."

Apple believes that the Macintosh Quadra systems will be successful with new customers in all segments of the market from business professionals to engineers to graphic designers to financial planners. The Quadras run virtually all Macintosh applications from spreadsheets and databases to desktop publishing and CAD/CAM to file and networking services.

Both of the new models share impressive processing power (twice the speed of the Macintosh IIfx), built-in colour graphics capability, on-board high speed Ethernet networking and improved SCSI/NuBus subsystems. Additionally, the floor-standing Quadra 900 can incorporate extra RAM memory (up to 64MB using 4 Mb SIMMS or 256 Mb using 16 Mb SIMMS), additional hard disks or other removable SCSI storage devices (such as CD-ROM, magneto-optical, cartridge drives, and others) and offers key lock security.

In designing the Quadras, Apple balanced four technology areas — processing power, true-color graphics, high-speed networking and high-speed SCSI & NuBus — to address a broad range of customer needs.

Processing Power

The 25MHz 68040 is the primary performance component in the Quadra computers. It's the latest microprocessor from Motorola and features a number of benefits.

In a recent performance benchmark study conducted by Ingram Laboratories, a subsidiary of Ingram Micro, the world's largest distributor of microcomputer products,

the Macintosh Quadra 900 was rated the fastest computer against 80386- and 80486-based PCs. In fact, the Quadra 900 dramatically outperforms 33MHz and 50MHz 80486 systems by as much as 63 percent. In the test, seven applications were timed performing a variety of everyday tasks. Ingram benchmarked the entire Macintosh product family running System 7 against IBM, Compaq and clone PCs running Windows 3.0.

True-Colour Graphics

Both members of the Quadra line share the highest performance and most configurable graphics subsystems ever designed onto an Apple logic board. That subsystem delivers up to 24 bits per pixel or true-colour (16.7 million colours) images on many monitors and provides built-in support for all Apple monitors.

That means that customers can chose from a 12-inch monochrome display all the way up to Apple's new 21-inch colour display without the need for an extra display card. The graphics subsystem also supports many monochrome and colour monitors from third-party companies.

Customers not only enjoy millions of colours on the screen, but everyday tasks like scrolling and moving complex graphics take place more quickly and smoothly than ever before. This level of performance is possible because the graphics subsystem features its own Video Random Access Memory (VRAM) and its own memory controller, which combine with the 68040 to speed up overall graphics processing.

The Quadra 700 comes with 512K of VRAM which supports 256 colours or shades of grey on the 12-, 13- and 16-inch monitors and 16 colours or shades of grey on larger displays. By simply adding SIMMs (Single In-Line Memory Modules), VRAM can be expanded to 2MB for true-colour on the 12-, 13- and 16-inch displays.

The Quadra 900 comes standard with 1MB of VRAM which supports 256 colors or shades of grey on all Apple displays. The VRAM can be expanded to 2MB for true-colour on the 12-, 13- and 16-inch displays.

For customers requiring true-colour on 21-inch displays, there are a number of third party NuBus cards available now.

High-Speed Networking

The Quadra line features built-in high performance Ethernet while continuing the Macintosh tradition of offering LocalTalk. Both networks offer the plug-and-play simplicity for which Apple networks are known. For Ethernet connections, the 700 and 900 are equipped with an Apple Ethernet port, a media independent connecting system which allows customers to use any standard Ethernet media including thin coax, thick coax and twisted-pair wiring.

The recently announced AppleShare Server 3.0 software operating under the System 7 offers both file service and print spooling while accommodating up to 120 concurrent users. The combination of AppleShare software, the Quadra systems' performance, built-in Ethernet, and other features make these machines easily adaptable for use as high performance servers.

High-Speed SCSI and NuBus

To properly balance the performance of the 68040, the Quadras needed a higher performance input/output (I/O) subsystem as well. New advances in ASIC (Application Specific Integrated Circuit) technology allow the Quadra line to offer up to twice the speed of SCSI and NuBus performance over previous Macintosh computers.

Higher I/O performance means less waiting time for users because I/O is critical to accessing storage devices and expansion cards. The new higher performance I/O subsystem is also backwards compatible so that virtually all of today's hard disks, scanners, CD-ROM drives, and expansion cards continue to work. Even greater levels of performance are possible when new, faster devices take advantage of these advanced capabilities.

Macintosh Quadra Features

The members of the Macintosh Quadra line share many common features:

- RAM Expansion: Up to 20MB on the Quadra 700, up to 64MB on the Quadra 900 using 4MB SIMMs;
- Graphics Subsystem: Support for all Apple monitors—true-colour capable for 12-, 13- and 16-inch monitors, high performance graphics processing, additional support for VGA, Super VGA, PAL and NTSC modes;
- NuBus Expansion: 2 slots on the Quadra 700, 5 slots on the Quadra 900;
- Sound: sound input (microphone included) and stereo sound output;
- SuperDrive™: 1.4MB floppy with the ability to read and write other formats such as MS-DOS, OS/2 and ProDOS;
- System 7.0.1: Hardware-only system software release to support the new Macintosh systems—Quadra, PowerBook™, Classic™ II.

In addition, the Quadra 900 also features:

- Storage Capacity: Up to four 5.25" half-height SCSI devices, two of which can have front panel access for removable media—CD ROM, magneto-optical, cartridge drives, etc.;
- Larger Power Budget: A 300-watt power supply which provides increased power for the five NuBus slots and four internal SCSI devices;
- Key Lock: Three modes of operation—on, off and lock. Lock mode shuts off the floppy disk drive, mouse, and keyboard operations.

Quadra 700 Upgrade

Owners of Macintosh IIcx and IIci computers can upgrade to the power and performance of the Quadra 700 with a simple logic board upgrade. This dealer installed option offers all the Quadra 700's features including on-board true-color graphics, high speed Ethernet networking and sound input. Each logic board upgrade comes standard with 4MB of RAM and 512K of VRAM.

Pricing and Availability

All of the Apple Macintosh Quadra computers and accessories will be available through Authorised Apple Dealers. Each machine comes equipped with Macintosh System 7.0.1 software, microphone, complete documentation, training software and a one-year limited warranty. Manufacturer's suggested retail prices (MSRP) and availability for the Quadra computers and related products are as follows shown on the facing page.

For customer information dial 100 and ask for Freefone Apple.

Apple Announces

The following table shows the Manufacturer's Suggested Retail Price (MSRP), and anticipated availability dates for the new computers and accessories.

The information has been supplied by Apple Computer (UK) Ltd.

For further information, dial 100 and ask for Freefone Apple.

PRODUCT/CONFIGURATION	MSRP	AVAILABILITY
PowerBook 100 2MB RAM/20MB Hard Disk	£1,375	Early November
PowerBook 100 4MB RAM/20MB Hard Disk	£1,575	"
PowerBook 140 2MB RAM/20MB Hard Disk	£1,795	"
PowerBook 140 2MB RAM/40MB Hard Disk	£1,995	"
PowerBook 140 4MB RAM/40MB Hard Disk	£2,195	"
PowerBook 170 4MB RAM/40MB Hard Disk	£2,975	"
PowerBook 170 4MB RAM/40MB Hard Disk with modem	£3,150	Late November
Accessories		
2MB PSRAM Memory Expansion Kit	£295	Late November
4MB PSRAM Memory Expansion Kit	£590	January 1992
Rechargeable Battery for PowerBook 100	£75	Late November
Rechargeable Battery for PowerBook 140 & 170	£75	"
Battery Recharger for PowerBook 100	£115	January 1992
Battery Recharger for PowerBook 140 & 170	£115	Late November
AC Adapter (115/240 V)	£75	Late November
External Floppy Drive	£195	"
SCSI Disk Adapter	£40	"
SCSI System Cable	£40	"
2400 Baud Modem (BABT approved)	£295	"
Classic II 2MB RAM/40MB Hard Disk	£1145	Late November
Classic II 4MB RAM/40MB Hard Disk	£1245	"
Classic II 4MB RAM/80MB Hard Disk	£1535	"
Classic II Logic Board Upgrade	£485	January 1992
Quadra 700 4MB RAM/80MB Hard Disk	£4,695	Early November
Quadra 700 4MB RAM/160MB Hard Disk	£4,995	Early November
Quadra 700 4MB RAM/400MB Hard Disk	£5,595	January 1992
Quadra 900 4MB RAM/floppy	£5,395	Late November
Quadra 900 4MB RAM/160MB Hard Disk	£6,195	Late November
Quadra 900 4MB RAM/400MB Hard Disk	£6,795	January 1992
Options		
Quadra 700 Logic Board Upgrade	£2,575	January 1992
Macintosh VRAM Expansion Kit	£145	Immediate
Macintosh 4MB Memory Expansion Kit	£335	Immediate

Jonathan Rosenoer looks at the

LEGAL SIDE

Bio. is a follows:
The author is an attorney, living in Sunnyvale, California. He has practical experience in a wide range of computer, unfair competition and trade secret litigation. He was a brief participant in the Apple v. Microsoft and Hewlett-Packard litigation, before the firm for whom he worked was disqualified therefrom. He is currently associate counsel for a New York Stock Exchange listed corporation, based in Menlo Park, California.

On December 13, 1990, Federal District Judge Terry Hatter stunned the software industry by ruling that Ashton-Tate Corporation's copyrights on its dBASE line of computer software were invalid as a result of its inequitable conduct. Judge Hatter's order, later rescinded, deprived Ashton-Tate of the ability to prevent piracy of its primary product, created as a result of more than 8 years of development at a cost of more than $150 million.

The lawsuit began on November 18, 1988, when Ashton-Tate filed suit in federal court against Fox Software, Inc. ("Fox") and Santa Cruz Operations, Inc. ("SCO"), alleging that their products (FoxBASE+ and SCO/FoxBASE+) infringed Ashton-Tate's copyrights in its dBASE programs. In part, Ashton-Tate alleged that Fox and SSCO had copied the user interface of dBASE III Plus. Fox and SCO responded with the defense, among others, of "Fraud and Inequitable conduct."

Late in 1990, requests for court orders from both sides were filed for hearing in December, 1990. On December 12, 1990, the parties were advised that there would be no hearing because Judge Hatter had decided to dismiss Ashton-Tate's complaint. As part of Judge Hatter's ensuing Order, he found that "the dBASE line of computer software programs was derived from JPLDIS, a public domain software program developed by the Jet Propulsion Laboratory..." Judge Hatter also found that Ashton-Tate had "repeatedly failed to disclose" this information to the United States Copyright Office, and held that this failure to disclose was done "knowingly and with an intent to deceive." Accordingly, Judge Hatter ruled that "Ashton-Tate's copyrights on its dBASE line of software programs are invalid as a result of its inequitable conduct."

Shortly thereafter, Ashton-Tate filed an appeal. It explained that Wayne Ratcliffe had created Vulcan, the predecessor to dBASE II in January 1978. Prior to developing Vulcan, Ratcliffe had seen a user manual for JPLDIS (a mainframe computer program in the public domain), which was the acknowledged inspiration for dBASE II. But no computer code from JPLDIS was ever used in Vulcan or the dBASE program. According to Ashton-Tate, the only similarity between Vulcan and JPLDIS was that they shared approximately 40 command names, out of a total of about 115 commands in Vulcan.

Ashton-Tate further explained that the attorney who had filed the applications for registration of the copyrights in dBASE II and dBASE III had never heard of JPLDIS. Further, at the time no-one at Ashton-Tate considered whether it would be appropriate to identify JPLDIS as a preexisting work. According to Ashton-Tate, the practice in the software industry had been not to identify a preexisting work on a copyright registration application where no code or screen displays were copied from the work. It was not until after the registration of dBASE II and dBASE III that Courts held that user interfaces, commands and command names are subject to copyright protection.

In addition, Ashton-Tate maintained that Judge Hatter had improperly based his order on an unprecedented and incorrect application of the patent law defense of "inequitable conduct," which is fundamentally different from the doctrine of "fraud on the Copyright Office." Full disclosure of information to the Patent Office is a required basis for the grant of patent rights, which is obtained from the government. Copyright, however, is created solely by the work of the author, and the registration of a copyright "merely involves official recordation of preexisting rights." Accordingly, Ashton-Tate argued that full disclosure to the public or the government "of the details of an invention" is not an issue regarding copyright registration, and that "the patent doctrine of inequitable conduct makes virtually no sense as applied to copyrights and the copyright registration process."

Ashton-Tate also contended, among other things, that: Ashton-Tate could not and did not benefit by deceiving the Copyright Office; a substantial question exists concerning whether the dBASE programs are derivative works of JPLDIS that should have been disclosed to the Copyright Office; and, the defendants were not prejudiced by the omission, since they, admittedly, never thought of reviewing Ashton-Tate's copyright registrations prior to the commencement of the lawsuit. Ashton-Tate argued further that "[unless promptly vacated, [Judge Hatter's] Order may discourage copyright owners from registering their copyrights and discourage owners from utilizing the supplemental registration procedures for which provision is made under the Copyright Act and the U.S. Copyright Office regulations."

In support of its appeal, Ashton-Tate filed a statement under oath by Ralph Oman, head of the United States Copyright Office. In his statement, Mr. Oman explained the differences between the copyright registration and patent application processes, and also stated that he had examined Ashton-Tate's copyright registration certificates and found that "if it had disclosed in its Original Registration Certificates the information that was later disclosed in its Supplementary Registration Certificates ... , the Copyright Office would still have processed the application and issued registration certificates to Ashton-Tate." (In the midst of the lawsuit, Ashton-Tate filed supplementary certificates of registration advising the Copyright Office of all facts that the defendants alleged they should have disclosed.)

Ashton-Tate's appeal was never heard. On April 18, 1991, Judge Hatter reconsidered his Order and rescinded it, returning to Ashton-Tate the power and the right to protect its software.

Some Other Items of Interest:

Notable legal developments since late February, 1991 include the following:

•Restrictions on the export of software have been tightened in the wake of the Persian Gulf war. The Coordinating Committee for Multilateral Export Controls (COCOM) is to formalize new controls on, among other things, software that makes computer networks reliable and resistant to attack by rerouting messages automatically after any single link has been destroyed. (See New York Times, May 22, 1991.)

•The U.S. Supreme Court has held, in a case titled "Feist Publications v. Rural Telephone Service," that an alphabetical listing of names and addresses in the white pages of a telephone directory is not entitled to copyright protection. An important aspect of the Court's ruling was its rejection of the "sweat of the brow" doctrine. Under this doctrine, it was argued that a publisher's efforts and investment was sufficient to entitle a work to copyright protection. (See New York Times, March 26, 1991.)

•Apple Computer Inc. has requested that its 1985 license agreement with Microsoft Corp. be rescinded, on the ground that it was strong-armed by Microsoft into signing the agreement. That license agreement is the focus of the lawsuit between Apple and Microsoft and Hewlett-Packard Co., in which Apple also alleges that Microsoft's Windows 2.03 and Hewlett-Packard's New Wave program infringe copyrights on the Apple Macintosh screen display. (See New York Times, May 24, 1991; San Francisco Daily Journal, May 24, 1991.)

•A consortium has been formed to develop and promote a universal computer language, known as Unicode. The proposed standard now includes codes for 27,000 characters. ASCII, approved in 1967, only comprises 256 different 8-bit sequences. The consortium includes Apple Computer, Microsoft Corp., I.B.M., Sun Microsystems and Xerox. (See New York Times, February 20, 1991.)

•The European Community has proposed a set of rules that would restrict how computerized information, such as medical records, insurance records and airline reservation records, can be used by businesses and governments. The proposals, known as the Privacy Directive, are intended to make privacy laws uniform within the European Community and to restrict the flow of information to countries without strict privacy laws. The Directive requires, among other things, the approval of the individual concerned before information about him or her could be collected, processed or transferred. The Directive also would require the registration of all databases containing personal information. (See New York Times, April 11, 1991.)

•Microsoft Corp. is under investigation by the Federal Trade Commission for alleged monopolization or attempted monopolization of the market for operating systems, operating environments, computer software and computer peripherals. (See San Jose Mercury News, March 13 and April 13, 1991.)

•Prodigy users sued the on-line service for defrauding subscribers by changes its pricing structure to instate a 25 cent charge for each message over 30 messages sent per month. (See San Jose Mercury News, March 22, 1991.) In April, 1991, these new charges brought Prodigy under investigation by the consumer protection division of the L.A. County District Attorney's office. (See San Jose Mercury News, April 16, 1991.)

•Prodigy was again in the news when it was discovered that a quirk in its software allowed Prodigy employees to view stray snips of private user files. (See Wall Street Journal, May 1, 1991.)

•AT&T warned a number of computer makers and software publishers that they are infringing a 1985 Bell Laboratories patent that covers basic software technology for running several programs simultaneously on a computer screen. (See New York Times, February 26, 1991.)

•A Federal Court Judge barred Atari Games Corp. from marketing video games cartridges (including Pac-Man) compatible with the Nintendo Entertainment Systems. Nintendo is suing Atari for alleged trademark violations, unfair competition, copyright and patent infringement. Atari, in turn, is suing Nintendo for alleged unfair competition an illegal monopoly on the home video game industry. (See San Jose Mercury News, March 29, 1991.)

•Leonard Rose Jr., of Middletown, MD, once a part of the group of hackers called the Legion of Doom, pled guilty to wire fraud in connection with his efforts to illegally obtain information to permit him secretly to modify an AT&T Unix software program, in order to allow access to Unix programs and to gather passwords. Authorities learned of Rose's efforts during the Secret Service's computer crime investigation named "Operation Sun Devil." (See San Jose Mercury News, March 23, 1991.)

•Kevin Lee Poulson, also known as "Dark Dante," was arrested by the FBI and charged with 18 counts of telecommunications and computer fraud. Authorities allege that Poulson stole Pacific Bell equipment and access codes to penetrate an Army computer network called MASNET, listen to a girlfriend's phone calls, and listen to FBI agents investigating Ferdinand Marcos. (See San Jose Mercury News, March 12, 1991.)

•Robert E. Gilligan, a programmer at Sun Microsystems, Inc., charged under a 1986 computer crime law, admitted to obtaining a phone company directory that included codes for free calling, free computer time, and confidential customer information. Gilligan, charged along with Kevin Lee Poulson and Mark K. Lotter with a conspiracy to engage in high-tech eavesdropping, was sentenced to three years probation and ordered to pay $25,000 restitution to Pacific Bell. (See San Jose Mercury News, March 29, 1991.)

•Steve Jackson Games, Inc. filed suit in Austin, Texas, against the Secret Service, two of its agents and an assistant U.S. attorney, seeking unspecified monetary damages and return of equipment and materials (including a computer bulletin board containing private mail) seized by the Secret Service on March 1, 1990, as part of Operation Sun Devil. The lawsuit is being funded by the Electronic Frontier Foundation, an organization founded by Mitchell D. Kapor to support civil liberties for computer users. The Secret Service raid on Steve Jackson Games, Inc. did not result in the filing of any charges. (See San Jose Mercury News, May 4, 1991.) Computer Professionals for Social Responsibility (based in Palo Alto, CA) has also filed suit alleging that the Secret Service failed to respond to a Freedom of Information Act request filed in September, 1990, requesting documents concerning Operation Sun Devil. (See San Jose Mercury News, February 27, 1991.)

Press Releases

Personal Press 1.01

Aldus UK have announced the first shipments of Aldus Personal Press 1.01 for the Apple Macintosh. Personal Press gives users the power of desktop publishing for a minimum investment of time and money.

The program, which is ideally suited to users of Apple's entry level Macintosh computers, assists users in the layout process through proxies (small preview images) that show the result of an action before it is taken. This technology provides constant, interactive graphic feedback to the user as an aid in design and layout.

With the AutoCreate feature, users can assemble text and graphics into one of the numerous predesigned templates provided with the program, or easily expand the power of AutoCreate by designing and adding their own templates.

In addition to placing text created with many word-processing programs, Personal Press has its own full-featured word processor that enables users to type and edit text directly in their publication. The program also provides a spelling checker and thesaurus, as well as the ability to search-and-replace text, fonts, styles, and sizes.

Plug-in modules enable users to scan images directly within the program. Customers can use the modules provided or add additional modules purchased from third parties.

Personal Press imports and displays full-colour graphics in greyscale TIFF and 24-bit colour PICT formats. Users can output these images to colour printers, or as spot-colour separations from black-and-white printers.

Scanned greyscale images can also be adjusted from within the program, and both text and graphics can be rotated to any angle — by using the mouse or by numerically specifying the angle of rotation. And advanced halftone capabilities optimise greyscale image output to any black-and-white printer, including those without PostScript capability.

The system configuration is Macintosh Plus, SE, Classic, Portable, SE/30, LC or II family with 1 MB of RAM, and System 6.0 or later. Aldus Personal Press 1.01 is System 7 compliant.

Aldus Personal Press 1.01 has a suggested retail price of £195 + VAT and is available now through dealer outlets.

Aldus FreeHand 3.1

Aldus UK Limited have announced Aldus FreeHand 3.1 for the Apple Macintosh, an update of its advanced design and illustration program.

The new version will include full support for Apple Computer's System 7 operating system; a new pressure-sensitive capability for the freehand drawing tool; and improvements in element manipulation, import and export options, and printing.

"Aldus FreeHand has always been a comprehensive design and illustration tool," said Moira Craig, Marketing Director. "This update is designed to improve our customer's productivity through full System 7 support plus exciting new capabilities that expand the product's work environment, graphics and text handling, and production features."

Customers will be able to take advantage of System 7 features including TrueType fonts, Balloon Help, Publish and Subscribe, and 32-bit addressing of installed RAM. Publish and Subscribe support, in particular, will provide greater cross-application compatibility by maintaining links between files so that updates can be handled automatically when original files change. The update will also support a new hot-links capability from Aldus PageMaker, enabling users to quickly open and edit placed Aldus FreeHand files from within PageMaker.

Customers will also be able to create hand-drawn effects with a new pressure-sensitive mode for the freehand tool. Using keyboard shortcuts or a Wacom pressure-sensitive drawing tablet and cordless pen (both sold separately), graphic artists can vary the line weights of strokes drawn with the freehand tool. Aldus FreeHand is the first PostScript-language drawing program to offer this capability.

Version 3.1 will provide improved element manipulation, such as arbitrary magnification for filling the screen with an enlarged view of any selected region; preservation of layers information for elements to be grouped, combined, or copied; and faster editing of styles via mouse and keyboard shortcuts.

In addition to offering three types of EPS export formats (generic, Macintosh, and MS-DOS), Aldus FreeHand 3.1 will be able to export files in the MacDraw PICT and PICT2 formats for placement in programs that can't accept EPS files. Illustrators will also be able to export and import complete colour libraries, which will help promote corporate consistency and maintain predictable colours for particular jobs, clients, or production processes. New printing options will provide more control over the speed and accuracy of printing; for example, customers will be able to speed up the printing of complex documents by turning on path-splitting and setting global flatness.

Aldus FreeHand 3.1 will have a suggested retail price of £395. Availability date is yet to be announced.

The recommended system configuration for Aldus FreeHand 3.1 will be an Apple Macintosh II series, Portable, or SE/30 computer, 4MB of RAM; System 7; and an 80MB hard drive. The minimum configuration will be a Macintosh LC, SE, Classic, or Plus; 2MB of RAM; System 6.0.5 or later; and a hard drive.

Aldus PageMaker 4.2

Aldus UK Ltd have announced an update of Aldus PageMaker for the Macintosh. The latest version of the leading page-layout program, PageMaker 4.2 will be System 7 savvy and can be extended via the new Aldus Additions. It will also offer over 40 new or improved features, such as enhanced typographic and precision controls.

PageMaker 4.2 will support standard System 7 features such as Apple Events, Subscribe, Balloon Help, and TrueType. Customers will be able, for

example, to subscribe to files that other System 7 savvy programs publish, and have their PageMaker documents automatically update as source files change. Support for Apple Events will make it possible for users to use a new "hotlink" to Aldus FreeHand 3.1, so that placed art can be seamlessly altered and updated from PageMaker.

The new Aldus Additions technology will enable customers or third-party developers to extend PageMaker 4.2 features to meet special needs or automate common tasks. PageMaker 4.2 will come with six Additions for performing such tasks as producing drop caps automatically, preparing files for "two-up" booklet printing, and rearranging a publication by moving thumbnail images of the pages.

PageMaker 4.2 will have a new numeric-placement Control Palette so users can precisely position, move, and resize objects — plus scale and crop imported graphics—by typing values and coordinates. The palette's "nudge" buttons will allow for precise, pixel-by-pixel adjustments of an element's dimensions or position. The Control Palette will also track the cursor's position and display the position and dimensions of objects.

PageMaker 4.2 will make many standard tasks faster and easier to perform. Improvements include user interruptible screen redraw, faster application launch, speedier text import, and significantly quicker autoflow through an option to autoflow stories without PageMaker's pausing to display each new page as the text comes in. Users will also enjoy faster spelling verification with a new version of the Proximity dictionary, faster printing in draft mode, and faster marking of index entries via keyboard shortcuts.

The 4.2 update will provide a number of other new and improved features in the areas of page and publication setup, text manipulation, and long-document creation. Highlights include page sizes up to 42" by 42" —invaluable when designing and producing multipanel pieces; baseline-to-baseline leading; an "Apply" button in the "Indents/tabs..." dialogue box so users can see results before closing the dialogue box; and a "Multiple paste" command for step-and-repeat pasting, with control over the number and offset of the copies.

In addition, version 4.2 will have interruptible screen redraw; the ability to copy Book lists between publications, plus specify the starting page of each file in the list; support for PPD and PDX printing files (which are tailored to specific printers and ensure high-quality output and easy customization); composite printing in black-and-white, greyscale, or colour; and a Dictionary Editor utility for creating, editing, and printing multiple user dictionaries. It will also import DCS and CMYK TIFF files.

Aldus PageMaker 4.2 is System 7 savvy, and also runs under System 6.0.5 or later; it requires Finder 6.1 or later. The minimum configuration for colour production is a Macintosh II series or SE/30 computer, 8MB of RAM, and an 80MB hard disk. The recommended configuration for black-and-white production is a Macintosh LC, SE, Classic, or Plus; 2MB of RAM (4MB under System 7); and a hard disk.

PageMaker 4.2 will print to colour, greyscale, and black-and-white output devices such as PostScript compatible and QuickDraw-compatible laser printers, and PostScript-language imagesetters.

Price and availability details are not yet available.

Accel-a-Writer

The Accel-a-Writer from Xante is now truly the answer if you want to get typeset quality from your Apple LaserWriter without breaking the bank.

Accel-a-Writer has a controller board that replaces the existing motherboard in the LaserWriter. Installation is simple and can be carried out in a matter on minutes.

600 x 600 dpi resolution is standard on the Accel-a-Writer. Upgradable to 16MB of RAM which can be used for storing downloadable fonts or even faster printing.

Accel-a-Writer has a dedicated RISC chip on board that speeds up printing by up to 10 times on complex text and graphics applications.

Accel-a-Writer doesn't leave the IBM out in the cold. Simultaneous interfacing is standard on every Accela-Writer so interfacing both Mac and IBM is seamless.

Accel-a-Writer has a standard SCSI port for attaching a hard disk so storing fonts is no longer a problem.

Accel-a-Writer upgrades the following: LaserWriter, LaserWriter Plus, LaserWriter II/NT, LaserWriter SC and Personal LaserWriter.

Accel-a-Writer costs from £2195.

Contacts: Colette Fanning/Mark James (0603) 741222. See Accel-a-Writer on stand 112 at the MacUser Show.

No more printing bottlenecks

Imagine being able to jump the queue when you are printing without having to cancel everyone else's print job. That's just one of the features offered by PrintCentral

Print Central is dedicated printer productivity software. It requires a Mac and hard disk which act as a print server. It will also work on an existing server under AppleShare 3.0

Print jobs are accepted instantly, as fast as the network can send them. This is great in bureaus where some jobs can take as long as 2 hours when outputting to film. As soon as the ok button is clicked the user has access to his Mac.

Why Print Central is different from print spooler—Print Monitor and LaserSpool have to process the print job in the background on the user's Mac thus slowing down the foreground task. Print Central works on its own server so this is not a problem

Most offices have more than one printer on their network. PrintCentral sends jobs to printers with the shortest queue so that jobs are printed more quickly and maximum use is made of each printer. All you have to do is define printer queues initially eg plain paper, letterhead, film typesetting etc. and Print Central does the rest.

Features:

- •Eliminates delays by accepting print jobs instantly
- •Eliminates print spoolers which degrade workstation performance
- •Increases printer ulitisation
- •Overcomes the LaserPrep incompatibility problem
- •Print jobs are never lost because of paper changing or jams
- •Print emergency priorities without cancelling other users
- •Overcomes the ApplePrint Server limitation on graphics
- •Times print jobs so you can allocate costs - great for bureaus
- •Reduces wasted time sending jobs to busy printers

PrintCentral costs £499.

Contacts: Colette Fanning/Mark James (0603) 741222. See PrintCentral on stand 112 at the MacUser Show.

HEADS IN THE SAND: 1984 — The Sequel

by Tom Pittman

Do you remember the original Macintosh commercial? It was a grim vision of a grey future: grey people trudging through grey corridors in a grey city to sit on grey benches in a grey auditorium to hear some grey Big Brother on an oversized boob tube pronounce grey platitudes; grey storm troopers trudging along at not-quite-double-time, chasing the only spot of colour in the whole flick, the red running shorts on a very much alive and vivacious young athlete representing Macintosh.

I was reminded of that ad again when I started up System 7 on my computer. Grey document icons on grey windows with grey scrollbars and grey titles. Grey Control Panel icons that are virutally indistinguishable from each other except by careful scrutiny (or reading the name, which is the same thing). The Finder trudging along trying desparately to keep up with a mouse more used to the speed of System 6 and earlier. The only splash of colour is a few spots on some of the icons. You can still use the colour menu in the Finder, but now it imposes on the selected icons a uniform hazy blue or dirty brown cast reminiscent of the atmosphere over Cairo or Los Angeles. Click on an icon and its features vanish into a sooty shadow something like the trees and houses in Romania.

Eventually I stumbled across a Control Panel device that let me turn off the grey overcast on the window structure and scrollbars, making the go-away box and scrollbar thumb clearly visible again. I am much more interested in interface features that improve productivity than those that look cute at the expense of efficiency. So I asked the Apple User Interface people about their choice of colours. The official dogma recognizes that colour shades are harder to distinguish than brightness levels, but the reply I received was unusually stereotypical for a company as aware of environmental and social issues as Apple generally is. "We recognize that you are in a class of incompetent losers" — the actual words she used were somewhat more unctious but no less demeaning. Somehow I get the feeling that this cavalier attitude is not restricted to one thoughtless remark. The designers of System 7 consider their interface "way cool" and if you disagree with them — however objective and rational your basis — you are out of it.

Whenever I install a new system, one of the first things I do is add my favorite command-key equivalents to the Finder menus to speed up the functions I use most often. Surprise! No MENU resources in the new Finder. The menus are in resources, but their format is unknown to ResEdit. The familiar LAYO resource has been replaced by a couple of Control Panel options offering similar functions but reduced control. One of these features is the ability to have the Finder snap icon drags to its grid. I could not figure out how to change the grid spacing (not that I really wanted to, but others in my work group need to do it), but the mechanism is a little flakey. For example, if you accidentally move the Trash can — it happened to me as I tried to eject a disk by dragging it into the trash, but missed the diminutive icon and wound up selecting both it and the trash — you can't just put the Trash can back where it belongs because that position is not on the grid, and restarting the system did not correct the matter. I even tried rebooting under System 6 and trashing the Trash folder, to no avail. No way is the new Finder going to put the Trash can back where it belongs. Ugly.

The Finder also has a strange notion about where icons belong. Before System 7, you could place the icons somewhere near where you want them, then "Clean Up Window" and they all snap to the nearest grid point. Now they insist on jumping to random (but consistent) places off-screen, even when placed on or near an empty grid location. It almost seems that the designers of System 7 don't really like the icon view, and perhaps never use it themselves. While the icon display has deteriorated somewhat, the text views have improved. Now you can choose to see the disk statistics in the text views where previously it was available only in the icon view. You can also choose several new options that were previously available only in Andy Herzfeld's original Servant (the prototype for MultiFinder), but these are available only in the list views, while Andy's was much more icon-oriented. An early prototype of System 7 allowed you to arrange the icon label where you wanted it, but since that's an icon view, not a list view, it did not survive to the release.

The "label" colours that are used to tint icons can be edited, but you really don't want to do that, as tempting as it may be to choose more pleasing colours than Apple's defaults. The reason is that the tinting of icons only works for their chosen colours; after tweaking the colours a little bit to make them stand out better, I found that the Finder simply threw them away. Oh, they're still on the menu, but now the tinting of the grey icons all goes to the same tint: red and brown are not distinguishable any more. But it still works for the old familiar Black&White icons, which take on the selected colour exactly as before.

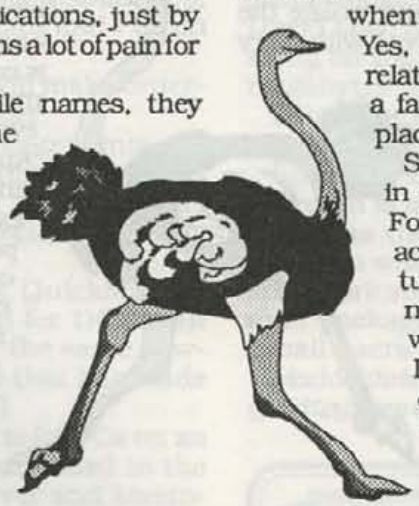
I did not see MacroMaker on System 7. Without this powerful tool for automating repetitive and complex procedures, System 7 performance will be substantially lower than System 6. MacroMaker has always been a little quirky; perhaps the folks at Apple could not make it work under the new system. Or perhaps they never used it, preferring rather one of the commercial products that do about the same thing. Or perhaps they assumed that with AppleEvents, who needs macros? I suppose I will eventually figure out how to program HyperCard to script some of the things I used to use MacroMaker for, but typing command strings is always more tedious and error-prone than clicking and dragging — indeed, that has been one of the Mac's big advantages, along with the increased efficiency of visual cues deriving from differently-shaped icons, so that reading names becomes less important. Apple giveth, and Apple taketh away. Incidentally, HyperCard 2.1, which ships with System 7, is supposed to be able to send and receive AppleEvents. It clearly lets you script a response to received events, but I was unable to send any of the documented Finder events. I guess it's back to machine language to do it the hard way.

I tried to copy my legible Monaco-9 font out of the old System file to replace the illegible ROM font and got another surprise: the Finder refused to run even the old Font/DA mover. I guess I will have to change the creator

type on the moving van for those times I need to install fonts in applications or extract fonts out of other files in the future; this time I just rebooted the old system and created a suitcase file. Next surprise: installing fonts is destructive in System 7, so be sure to back up your font files before you try to install anything. I guess they wanted it to work like dragging a file icon into another folder, which is how you install your fonts now, also: just drag the suitcase onto the system file icon. The trouble is that moving a file from one folder to another does not alter the file, only its place in the directory, but deleting fonts from a font file actually changes the file. That makes it a little harder to track revision dates. Bleah.

I miss the list of active applications under the Apple menu. They are now way the heck and gone over on the other side of the screen, where they are hard to get to (most of my mousing being toward the left side of the screen). You can do things like drag an alias of an application (or the application itself) into the Apple Menu Items folder, and it shows up in the menu, but it's sorted in with the rest of the DAs, and there's no indication of whether it's active or not. With some judicious renaming, I was able to get my usually open apps listed at the bottom of the menu. Pleasant surprise: Folders and other files dragged into the folder also show up on the menu, so I faked a nice dotted line to separate the DAs from the applications, just by naming an empty folder "————". Seems a lot of pain for what used to be free.

Speaking of changing folder and file names, they changed it. Now instead of clicking on the icon and typing, you have to click twice, the second time on the name veeerry slooowwlly, so it won't open the folder or document unintentionally. Sometimes clicking just once on the name works, but it seems inconsistent. One of the more frustrating features of Qued/M has been that you cannot drag a window without bringing it to the front: one click to bring it to the front, the second to drag it, but if you do it too fast, the window jumps to another screen. System 7 icon names have that same irritating feel, but instead of merely jumping off to some other place where your mouse is not, a whole program starts up, and you have to wait for it to finish its splash screen and load all its code into memory so you can tell it to quit and go back to the Finder and try again.



Some things are not in System 7. All the critics have noticed that the promised new printer drivers are not there. They have also continued to gripe about the lack of memory protection and preemptive multitasking. Not having these does not bother me, and for good reason. Memory protection is useful only when trying to run buggy software that might trash other applications. Well-written applications don't do that, and power users have no business letting the other kind on their system. If it can't trash other applications, it can still corrupt the data it is allowed to touch — such as the files on your hard disk. If the system promises protection, then developers will let out software that depends on that flimsy protection instead of doing a more rigorous job of design and testing. Check it out: software written for Unix systems (which has memory protection) tends to be much more fragile than comparable programs on the Mac. The case against preemption is similar. Well-written software has no trouble scheduling system calls during execution; it takes about 100 lines of support code, plus a few carefully-placed calls to it, and it costs something like 1% of the execution time when you are doing something compute-bound. Because the developer is responsible to choosing the times that it's safe to switch out, the overhead of switching is considerably reduced over the costs of preemption. The result? Everything runs faster. Case in point: in my compiler, the same code runs both under Apple's Unix system (A/UX, which I believe is properly pronounced "ox") and in background under MultiFinder, where it is an order of magnitude faster with other tasks running than it is under A/UX with nothing else up. Yes, it's more trouble for the developer to write courteous software for a non-preemptive environment. It's more trouble to write for a Mac than for a PC, also. Lazy developers can find work somewhere else; the best software is always done by programmers willing to go the extra mile in delivering more bang for the buck. I have no sympathy for the grumblers.

The balloon help is nice, and works reasonably well, albeit slowly. But it gets on your nerves real quick. After trying out the balloons for about ten minutes, I turned them off. I will probably never turn them on again except when verifying the balloons in my own software. Yes, my compiler does balloons. They were relatively easy to install, given that I already had a fairly substantial context-sensitive help in place.

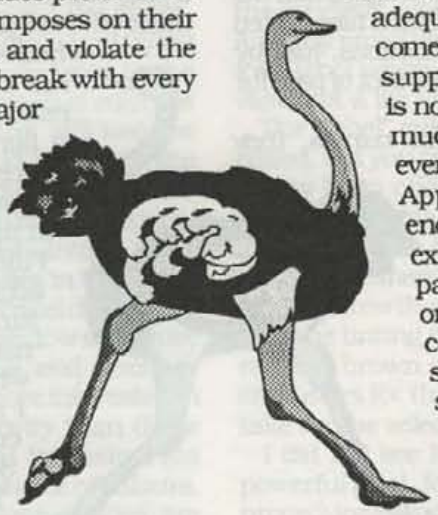
System 7 has taken a positive step forward in organizing (and cleaning up) the System Folder directory pollution that has been accumulating over the years, but then it turns around and adds a half-dozen new names at the front of the root directory, where it's far more annoying. No longer can I see all the interesting files and folders I commonly access without scrolling the Standard File dialog. No, there are all these "DeskTop This" and "DeskTop That" files that I have to mouse over and scroll past. And a funny file with a lot of control characters in its name at the top of the list. They should have found a way to make them invisible in the file dialogs, or (better) given them names that sort to the end of the list.

When a successful product goes through a major redesign, it often accumulates multiple different (and sometimes incompatible) solutions to the same problems in the first version. The 68000-series CPU that is the heart of every Mac shows this effect: the previous Motorola CPU (6800) had some logical flaws in its design; different users suggested different possible solutions to Motorola, and all the suggestions went into the 68000. System 7 exhibits some of the same kind of barnacles. Many Mac users are unable to keep track of their files. One solution is a FindFile utility that works a little better than the one on System 6. A different solution is to allow users to make pointers or links to their files in all the possible places they might look; System 7 calls these Alias files. I was never so disorganized that I didn't know where my files were, so I have little use for a file finder. I already have a cheap version of aliases that works just fine for me in System 6: I put a tiny empty document owned by whatever program I want to use in the desktop window, or another folder likely to be open when

I need the application, then I can open the program by double-clicking the document. Data sharing between applications is for me always restricted to a folder where those apps are available, so document aliases has never been a requirement.

They tell us that System 7 was completely rewritten in C. It shows. Contrary to popular religion, programs written in C are measurably less efficient than equivalent programs in Pascal. My experience is that they are also buggier and less likely to be finished on time. System 7 is no exception. It is claimed that System 7 is the best-tested software ever released by Apple. Considering that I started to find bugs in the release version in less time than any other Apple software I have used (not counting esoterica like AppleShare and AppleLink), I'm not sure I believe that. I can bomb it dead in the Finder in ten seconds, without even opening an application. That's not fair: I think it's a ROM bug that System 7 never bothered to patch. But the other problems I mentioned are real System 7 bugs.

Then there is the software to run on System 7. Not to use all its whizzy new bells and whistles, just run. I run some fairly heavy applications, but it's getting harder these days to find good clean software written in Pascal. All the new programmers coming out of the universities prefer C. To compensate for the performance hit C imposes on their programs, they have to sneak around and violate the Apple guidelines. The result? Programs break with every minor system upgrade. System 7 is a major upgrade, and it breaks power software big-time (as in crashing bombs). That also means that upgrades will be more expensive and take longer to ship. The programs I use are not available yet. One of them, a programming text editor, was never fully compatible with MultiFinder in System 6; needless to say, it crashes under System 7. I switched to this program when my previous tool crashed under MultiFinder; maybe it's time to switch vendors again.



I think Publish and Subscribe is a great idea that naturally extends the Macintosh innovation we call the clipboard, but it will be some time before a significant number of applications are ready to take advantage of this feature. If you need dynamic data links in your files, and if (or when) the applications you use get around to supporting it, System 7 will be a positive advance in the technology. I don't think that is today or tomorrow for most of us.

AppleEvents, the new mechanism for Inter-Application Communications (IAC) that System 7 brings us, looks like a nice idea, but the underlying objective is flawed from a market prospective. It is claimed that with IAC, users will be able to link smaller, more focussed applications together into vertical applications customized to their requirements. Nice idea, but probably not workable. Where are these smaller applications going to come from? Not from the big software houses: they know very well that their market is driven largely by the reviews in the magazines and the dealer recommendations. Dealers and critics alike measure program quality by counting features, not by any more subjective characteristics like how well it does what it does. So the big software houses will continue to glue on ever more esoteric (and generally useless) features, hoping to make it unnecessary for their customers to buy any other programs to work with these products. Oh, they will support AppleEvents all right, but their goal is to make it easy for program A from company X to work with program B from company X, and (hopefully, but without seeming to do so deliberately) hard for it to work with any program from their competitors. Bank on it. Did you ever drive down a business street looking for a particular address? No street numbers. I think the reasoning is that, if you are looking for Joe's Auto Parts, you will see his sign and not need the number over the door. If you are really looking for Sam's Auto Parts, Joe is not at all interested in letting you know that you have three blocks to go. The same logic applies to mixed vendor software interconnectivity.

Well, then, can small software developers use AppleEvents to enable their applications to work with other small applications? Yes and no. Where Apple defines standard event suites—and they have done that to a large degree — everybody will be obliged to implement them, just as thus far they have been required to implement cut and paste. But if an application has some unique capability (and why buy it if it does not?) then it is unlikely that the standard suite of AppleEvents will adequately cover it. So the developer must come up with his own proprietary events to support this new whizzy feature. Because he is not one of the Big 3, nobody else will have much motivation to support these new events, and so he (and his users) are stuck. Apple recognizes this and is explicitly encouraging developers to register their extensions as AppleEvents, but with all this parallel uncoordinated development going on, the effort is doomed to failure. Apple could have paved the way with a suite of small but usable applications and a scripted driver to control them, the way MacWrite and MacPaint defined what a word processor and a drawing program should look like back in 1984. Third-party developers would not stand for this, so we get chaos instead. Worse than that, Apple is likely to wait for the more innovative developers to solve the knotty problems, then come out with their implementation, riding on the research coattails of the early adopters as it has already done several times recently. Cautious developers will just wait for somebody else to spend a lot of development money and get trampled by the Apple raiders. The result: not much in the way of usable IAC in the immediate future.

I think that after the dust and tinsel settles and people have had a chance to give it a fair trial, we will find System 6 to be the preferred system for people with work to do for a long time to come. John Sculley promised that System 7 will once again make it hard for PC clones to claim to be Mac-like. For the first time in seven years, I ask: who would want to?

Press Releases

QuickMail 2.5

The leader in Macintosh electronic mail now supports PCs and Macintosh Computers in Novell, LAN Manager, 3+Open and Banyan Workgroups

CE Software, Inc. have begun shipping QuickMail 2.5, a new version of the leading electronic mail system for the Macintosh. Now, in addition to QuickMail's current support of Macintosh Computers and PCs on AppleTalk networks, version 2.5 supports PCs and Macintosh Computers in PC LAN environments that support AFP-compatible file services.

QuickMail 2.5 also delivers many new important features for users, plus enhancements to the architecture.

QuickMail 2.5 is compatible with DOS, Macintosh, Windows 3.0, and remote clients on both AppleTalk and PC networks — in a single, off-the-shelf package with a single graphical look. In addition, the QuickMail package includes the QuickMail server, administrator, remote access, and several gateways. With QuickMail v2.5, no gateway is needed between the Macs and PCs on the network.

For resellers, this new packaging will make ordering and selling QuickMail much easier.

Customers simply buy a single package to mix and match any combination of supported clients on their QuickMail network. The QuickMail Server doesn't care which types of clients are connected to it, only how many users have mailboxes.

QuickMail now has two PC clients, QuickMail for DOS with AppleTalk and QuickMail for DOS with File Servers. Both products support the same powerful, easy to use graphical interface that has made the Macintosh version so successful.

QuickMail for DOS with AppleTalk is for PCs on an AppleTalk network. These PCs are attached to the same network as the QuickMail server and Macintosh clients. QuickMail for DOS with AppleTalk supports all QuickMail features including QuickConference, which provides realtime conferencing between QuickMail clients.

QuickMail for DOS with File Servers supports PCs on PC LANs that connect to Macintosh Computers through AFP-compatible file services. These PC LANs currently include Novell, 3+ Open LAN Manager, Banyan Vines and DEC's PCSA. These PCs require no additional LAN hardware or software and have complete access to all QuickMail gateways and bridges on the QuickMail server. (QuickMail for DOS with File Servers does not support QuickConference.)

QuickMail 2.5 is compatible with Windows 3.0 PCs through the DOS compatibility box. The QuickMail DOS client is based on character graphics and uses accelerator keys consistent with Windows 3.0 and IBM standards.

A separate version of QuickMail 2.5 for OS/2, and QuickMail for OS/2 with File Servers, will soon be included in the same QuickMail 2.5 package. Currently, a coupon to receive a free OS/2 version is included in each box.

A complete family of Macintosh APIs (Application Programming Interfaces) for QuickMail 2.5 are currently under development. These APIs will provide developers access to the messaging and addressing services of QuickMail 2.5.

QuickMail is available from MacLine, 081 642 2222.

QuicKeys and MockWrite go into Orbit

CE Software, Inc., have announced QuicKeys and MockWrite were used by the Atlantis Space Shuttle crew on the August 2, 1991 flight. QuicKeys helped facilitate the number of HyperCard Stacks the crews used for targeting. In this case, QuicKeys was used to simplify and automate the experiment interface for the crew.

The Atlantis crew was provided information on what they were to photograph from space. Because people who provided this information produced it on a Macintosh, it made sense to display the information to the crew on a Macintosh. MockWrite was used to display this information to the shuttle crew. Additionally, MockWrite was used so the crew could take notes on their tasks.

On board the Shuttle were astronauts, Commander John Blaha, Mike Baker, Pilot, Mission Specialists David Low, Shannon Lucid and Jim Adamson. Also along on the flight was a Macintosh Portable with 7 megabytes of RAM and a 40 megabyte hard drive.

This is the second year in a row that QuicKeys and MockWrite have been used aboard a space shuttle.

Someday in the future, when the space station Freedom is launched, NASA will have decided such things as the kind of water and electrical systems Freedom will have, which cursor-control device the crew work station will use, and even which electronic mail package will be used to communicate to the Email users on earth.

MockWrite is a part of MockPackage Plus Utilities. This, and QuicKeys are available from MacLine, 081 642 2222.

Textile Computer User Group

It is proposed to form a Textile Computer User Group for anyone interested in designing on the computer (Macintosh, IBM or any other make) for embroidery, knitting, lace, weaving, crochet, patchwork or quilting.

The aim of this Group will be to exchange help, information and ideas about computer graphics. This will initially be in the form of a quarterly Newsletter which will include reviews of painting and drawing software, articles on designing for any of the textile mediums, reports on computer shows, and information about the people already working in the field. We hope to arrange meetings, demonstrations and courses in the future.

For further formation of this Group, please contact Valerie Campbell-Harding, [illegible] enclosing a SAE.

The Typist - An Update

By Mike Dawson

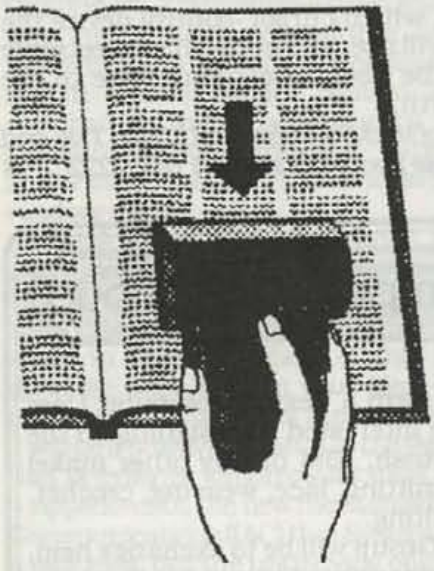
One of the biggest disappointments of upgrading to System 7 was not the loss of opportunity to have a gripe at the expected crashes but that the only piece of software I possessed that caused a system bomb was my hand scanner, The Typist. A call to Computers Unlimited confirmed that indeed The Typist was incompatible with System 7 but an upgrade was due the following week.

After waiting three weeks I telephoned again only to be told I should have received an upgrade and was I a registered user?. After giving my user number and being confirmed as indeed registered I was promised an upgrade in the post. This did indeed arrive via courier two days later.

I quickly unwrapped the package to find two floppy discs and a new manual. Reading the manual I found that the upgrade to version 1.1 was more than a System 7 compatibility fix. There are many enhancements which address some of my criticisms of version 1.0 which were aired in my original review in last December's magazine.

The Manual

First I shall describe the changes to the manual. For a start it is now dedicated to the Macintosh version alone. No longer are we treated to descriptions of the self inflicted torture that IBM users have to go through. The manual is an almost complete re-write with sections added to explain the dithering switch for scanning graphics. Installation is now separated to cater for System 6.0 as well as 7.0. The confusing init and DA's conflict detection explanation has been ironed out so it is no longer so baffling as the original.



All in all, it is a better attempt and it tries to address some of the hastily lashed together appearance of the original manual. More advice is offered as to the typical brightness settings to be tried for various types of paper encountered. The question I raised before of the dithering switch not being explained has been addressed. The explanation is however basic with no visual examples so it is really left to the user to experiment as to which is the most useful setting for the task in hand. Altogether a much better manual than the original.

New Features

A new feature of this update is the ability to scan differing resolutions when in the graphics mode. The user can select 75, 100, 150, 200 or 300 dpi (dots per inch) which is explained as differing resolutions requiring more memory and hard disk storage space to use the higher resolution settings. What is not explained is the larger physical size of the scanned image with the higher the resolution when trying to print the resulting scan.

One of my original criticisms of the Typist was the limited number of file formats that scans could be saved to. This has not changed but a new facility has been added that opens up the scanner to a wider audience. There is now the facility to cut and paste directly from the scanned display to the clipboard or scrap book. From there the image can be pasted into any application be it paint or word processor. Images can be clipped to remove unwanted sections as long as they are rectangular in shape. There is no 'lasso' tool to pare off sections. That will still have to be done by a paint programme.

Operation

The operation of the scanner remains almost the same as before with no real changes to the text scanning side. The real differences are with the image scanning. The only change I could detect is the automatic brightness setting is now made once the image option is selected. Before brightness was set in the same manner before text or image scanning was selected.

There is still the mysterious conflict with the spreadsheet Wingz which only comes into play when the Typist is used in conjunction with Wingz. The operation is OK there is only the possibility of a problem when Wingz is quit and the Typist is used again. A system hang could ensue so the manual recommends that the Mac be rebooted after running Wingz.

The only problem I have experienced was a system bomb when starting up the Typist from the DA. I think the DA was not quite visible at the bottom of the Apple menu when I selected it. My Apple menu is very long with lots of Aliases as well as DA's I never seem to use but always think of as useful. Anyway my Mac bombed with an unimplemented trap error and forced a restart on me. So in future I will be more careful in selecting the DA. Other than that the Typist has been very stable and has become super glued to my SCSI port which is not as painful as it sounds.

Tips

Although the manual does give many good tips for the successful operation of the Typist I would add one of my own. I have found that scanning images sometimes resulted in 'torn' images appearing on the monitor. This is usually an indicator that the scanner is being drawn down the page too fast. I was somewhat baffled to find this happening even if I was really slow and careful. I found that due to my liking (and fascination) of seeing the image appear on the monitor the poor old processor could not keep up with the scanner as well as update the screen. So if this is happening to you then simply resize the image window to a small area before proceeding to scan an image. It is not so interesting or so impressive but you will not get those jagged tears in the resulting image.

Conclusion

This upgrade is worthwhile for both System 7 users (essential) and System 6 users as it adds some very useful additions. I would urge members to upgrade especially as it is free. However if my experiences are anything to go by a telephone call may be necessary to prompt action.

Product - The Typist V1.1
Manufactured By - Caere Corp.
Distributed By Computers Unlimited Tel. 081-2008282

File Formats • 1991

by Allan Warner

Each year a revised version of this listing is published showing all of the standard file formats and protocols now being used on the Macintosh. The list below has almost three times as many file formats and protocols since it was last published. Just about every application has its own file format. However, the formats listed below are relatively standard formats used by many different applications.

Way back in the old days, computer operating systems controlled everything. Everything meant even the file structure or format. In the early 1960s, when IBM introduced the System/360 computer, we saw the beginning of the present day mainframe and mini computer's operating systems (OS). This OS acted as the interface between the user and the machine. It controlled everything, including the exact way a file had to appear to the machine.

The structure of data on most computers, irrespective of their size, is the same. It starts with the bit and goes to the file. This structure is listed below:

- **Bit** This is the lowest structure of data on a computer. It stands for binary digit;
- **Byte** A sequence of eight adjacent Bits that symbolize a usable unit, such as an alphanumeric character that is the computer's smallest addressable unit;
- **Field** A group of Bytes or alphanumeric characters which contain the smallest unit of usable data;
- **Record** A collection of related data, which contains one or more Fields;
- **File** An organized group of related records that are treated as a unit;
- **Folder** On the Macintosh, a group of files that are displayed together, but normally have no other predefined.relationship.

Let's take a look at a typical mini computer's OS, the "System Support Program" (SSP) that is now used on various IBM machines. There are only three types of file formats used under SSP. These formats are: Indexed Files, Sequential Files, and Direct Files.

- An **Indexed** File has a file structure in which the position of each record on disk storage media is recorded in a portion of the file called the index. The index contains an index key and disk address for each record in the file. This method, which is also used on microcomputer database applications, allows for extremely fast record look up. To find a specific record, the index key, which is much smaller than the file, is searched, and then the record is found by using the disk address to locate its actual location.
- A **Sequential** File is a file in which records are entered one after the other, and where there is no relationship between the file's contents and the positions of the records on disk storage.
- A **Direct** File is a file in which records are assigned specific record positions in the file where they always occupy the exact same assigned position.

On machines using SSP, only these three formats are available. No other file format will work with the SSP. All mainframe and mini computer operating systems have similar file formats that are defined by their operating systems.

When micro computers were first introduced, their operating systems had to be very small, as the machine's memory and disk storage was limited. An easy way out was not to define file structure or format in the OS. Therefore, the creator of the application software, or in some instances, the creator of the software language created the file format. Because of this, there are a confusing number of different file formats being used in similar types of applications. As an example, look at the different word processing programs which each use their own file formats. Can the Microsoft WORD application directly open, say, a word processing file that was created in FullWrite-Professional?

As mini computers became more powerful, with huge amounts of RAM and disk storage, the operating systems could have been changed so that they defined the file formats. However, this was not done, as most third party application publishers are happy with their own proprietary formats which they feel binds the user only to their application. Think about it — if we had a universal format, you could move your data easily from one software to another without the slightest bit of complication. This would make your data "application independent", and weaken the software publishers hold over you.

The problem with the system of software creator defined file formats, is that there is no real way to interchange data between applications. This problem is slowly being solved, in what I feel is a complicated way. Intermediate files have been created which define specific data structures, such as graphics, text, spreadsheets, sound, CAD, etc. Applications must be written to both import and export data between these formats. To further complicate matters, software publishers are continually introducing "new" interchange file formats, which are usually not universally supported by their competitors.

Below, I will try to explain what some of these file formats are supposed to do. As you will see, with so many formats available, confusion continues.

File formats used on the Macintosh have specific purposes. Most users don't understand what all the different formats are intended to do, or how they interact with the Mac. The Macintosh can only directly output QuickDraw commands and text. (It can, however, send data manipulated by various

application programs to files, in various formats.) These QuickDraw commands are used to generate display screens or are sent to the printer drivers. The Macintosh cannot directly read most of the file formats generated by the application programs, but with available software different formats can be translated to something the Mac can handle.

For image formats, there are two types: Raster and Vector. Raster image formats turn bits on or off, which then, turn pixels on or off, on the display screen, or print dots on printed output. Vector image formats contain mathematical descriptions of the screen or printer images. In the Macintosh world, the Raster image is a PAINT type format, while the Vector image is a DRAW type format.

Below are descriptions of the most popular image, text, and spreadsheet formats, as well as character coding:

ADF (Apple Document Framework)
A file format similar to MIFF which contains color animation and sound for multimedia presentations.

AFP (AppleTalk File Protocol)
A file format which allows the transfer of files between various types of computers which are attached to an AppleTalk network.

AMP (AppleTalk Management Protocol)
A file format and protocol very similar to IBM's SNA which was developed by Apple for use on it AppleTalk or LocalTalk networks.

API (Application Programming Interface)
A format and protocol developed by the Association of Color Developers (ACD) that allows applications and devices to communicate with color measurement systems which assures users color consistency.

ASCII (American Standard Code for Information Interchange)
This is a text character code or format, which is used by almost all computers, except for the larger IBM mainframes and minis, to describe alphanumeric characters, punctuation, symbols, as well as special characters, that are in the eight bit Binary format. The Macintosh uses an extended version of the ASCII code, which provides eight bits for one character (byte), without a check bit.

BAR Code
These are alphanumeric or numeric characters of the ASCII or EBCIDIC character set which are written in various ideographic forms that are machine readable. The forms are essentially vertical lines of various thicknesses, spacing, or heights, which are in a font format and represent specific characters. Below are details of a few of the more common BAR Code formats.

Code 39 (also known as Interleaved 3 of 9)
This is an alphanumeric format used for inventory identification, personnel documents, and by the U.S.Government.

Code 128
A new universal alphanumeric format which is to eventually replace many other presently used formats.

EAN (European Auto Number)
This numeric format is used in Europe for coding retail products.

Code 25 (also known as Interleaved 2 of 5)
This is a numeric format which is used by the transportation industry

ISBN & ISSN (International Standard Book/Serial Number)
These are international numeric formats that are used to identify books (ISBN) and periodicals (ISSN).

POSTNET
A numeric format which is used by the U.S. Postal Service for ZIP Code automation. This format appears in the lower right corner of many envelopes and represents the ZIP Code of the addressee.

UPC (Universal Pricing Code)
This numeric format is used, for retail products. It is the BAR Code that is found on various food products, which are read by the scanners that are attached to supermarket cash registers.

Baudot Code
A text character code or format where a character is represented by five (5) bits (rather than the standard eight bits as in ASCII or EBCDIC. This format is used for telex transmission.

BIFF (Binary Interchange File Format)
A file format created by the Microsoft Corporation to store data in cells - rows and columns, represented in standard ASCII, with format specification, for their Excel spreadsheet programs, version 2.2 on the Mac, Excel for Windows on PC/DOS or MS/DOS machines and Excel for OS/2 machines. This format can be used to transfer data between spreadsheet programs on different computers.

Binary Format
A numbering system consisting of ones and zeros, which is a representation of the base two counting system.

CCITT (Consultative Committee International Telegraph and Telephone)
This is a raster type format which has four groups, for facsimile (FAX) transfer; groups I - II - III - IV. The FAX modems for the Mac use groups II and III of this format.

CGM (Computer Graphics Metafile)
A vector file format, which was adopted by the American National Standards Institute (ANSI) in 1986, to become the computer industry's image file format standard. This format is not popular on the Macintosh, yet.

CIE (Commission Internationale de l'Eclairage)
A mathematical model for describing colors, which is the basic standard used throughout the world for describing graphic and electronic colors.

CL/1 (Control Language 1)
An Apple file format that is used for transferring Macintosh data between various third party applications and to query remote main frame databases.

CYMK (Cyan Yellow Magenta Ink)
A system of representing colors based on the standard printing ink colors of cyan, yellow, magenta and black.

CSV (Comma Separated Variable)
This is a file format (not graphic), where logical separation of data is accomplished with a comma (ASCII code 44).

DAL (Data Access Language)
An Apple file format that is used for transferring Macintosh data between various third party applications and to query remote main frame databases. DAL is now replacing CL/1.

DBF (dBase Format)
A proprietary format of Ashton-Tate's PC based dBase data base manager. DBF contains the database's text, numeric and database structure combined into one file format.

DCA (Document Content Architecture)
An interchange format for word processors which has become the standard on the MS-DOS computer, but is also used on the Macintosh. Also called RFT/DCA for Revisable-Format-Text Document Content Architecture.

DD01 (DiskDoubler)
A Macintosh compression format that uses various compression algorithms, to compress files or reduce their sizes, for disk storage. This format uses the DiskDoubler file compression application which is distributed by Salient, Inc.

DIF (Data Interchange File)
A file format (not graphic), without format specifications, used to store spreadsheet data, represented in standard ASCII. This format is used to transfer data between different spreadsheet programs on different computers.

DXF (Drafting Exchange File)
This is a common vector type graphic format that is machine independent, and is used to transfer data between CAD (Computer Aided Design) and CAM (Computer Aided Manufacturing) programs.

EBCDIC (Extended Binary Coded Decimal Interchange Code)
A system similar to ASCII which is normally only used on IBM mainframe and mini computers. Programs are available for the Macintosh, which will convert EBCDIC to ASCII, so that output from an IBM mainframe can be converted to an ASCII format usable on the Mac.

EDI (Electronic Data Interchange)
A standardized file format for transferring data between applications and platforms. A MacEDI version is available which allows the Macintosh to be one of the supported platforms.

EdPS (Editable PostScript)
PostScript page description language that is used as a carrier of information between applications. The content as well as the form of the document would be edited directly or from within a page description application.

EPSF (Encapsulated Postscript File)
This is a vector type format used to hold Postscript and PICT formats in the same file. Normally, the Postscript portion is sent to a LaserWriter printer, while the PICT portion is sent to the MAC's screen. As the Mac can only display QuickDraw commands, it needs the PICT format, so that an image can be formed on the screen (see the PICT and Postscript file format descriptions).

GIF (Graphic Interchange Format)
This is a vector type format which uses a compression and encoding standard for eight-bit images. It is a very efficient format.

GEM (Graphics Environment Manager)
A vector type format used on certain PC-DOS drawing programs. This format was developed by Digital Research.

Hexadecimal
This is a character identification system, which is used to describe all of the possible combinations in the eight bit binary coding system (either ASCII or EBCDIC). It is a sixteen base numbering system (0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - A - B - C - D - E - F).

HIFF (Hypermedia Interchange File Format)
A file format that contains text, graphics, sounds and instructions (such as Hyperscript). Used as an interchange for Hypermedia applications such as Apple's HyperCard and Asymetrix, Inc.'s Windows' 3.0 ToolBook.

HPGL (Hewlett-Packard Graphics Language)
A vector type image format that is universally used to output images to many plotters. This format includes commands which allow for various mechanical plotter operations, such as selecting a specific pen.

IAC (Interapplication Communications)
A protocol used by the Macintosh operating system to transfer live data links between applications.

IDS (Intelligent Snapshot Drivers)
A graphics transfer format which is used with MS-Windows. Graphics can be transferred from MS-Windows to a Macintosh format using this interchange format.

IGES (Initial Graphics Exchange Standard)
This is a vector type machine independent universal graphic format which is used for exchanging data in CAD and CAM programs. It was developed by the U.S. National Bureau of Standards and, therefore, is an ANSI (American National Standards Institute) standard.

IMG
The bitmapped format that is used with the GEM vector format, on PC-DOS machines. This format is one of the native Ventura Publisher file formats, and can be converted to the Mac.

JPEG (Joint Photographic Experts Group)
A file format that allows users to compress 24 bit images in ratios up to 100 to 1.

LAT (Local Area Transport)
Digital Equipment Company's (DEC) version of SNA or TCP/IP, a file format and protocol for transmitting data through a communication system, where the end users of the communication system are independent of and unaffected by the specific communication system and hardware used for the data exchange.

MacBinary
A communications file protocol which transfers both the resource section and data section of a Macintosh file.

Macromedia
This is a common file format which will enable multimedia data to perform identically on multiple platforms, scripts and devices.

MIDI (Musical Instrument Digital Interface)
This format allows a computer and its input devices to communicate audio synthesis information in digital form. The Mac can send MIDI commands and data to synthesizers that create acoustic waveforms that can be amplified and played through loud speakers.

MIFF (Multimedia Interchange File Format)
A file format proposed by Apple, which contains color animation frames and sound, for Multimedia presentations.

OLE (Object Linking and Embedding)
A common Microsoft file protocol for linking files produced my Microsoft applications on both the Macintosh and DOS platforms.

PACT (Compact)
A Macintosh compression format that uses various compression algorithms, to compress files or reduce their sizes, for disk storage. This format uses the Compact or Compact-Pro file compression application.

PCX (PC Paintbrush)
A file format that is used to save graphic files created by the PC PaintBrush application.

PDES (Product Data Exchange Specification)
A new data format which will facilitate the exchange of data between different CAD systems. This format was developed by the U.S. National Bureau of Standards and International Standards Organization, and should become the worldwide standard.

PIC
A vector type graphic format that is supported on PC-DOS machines. Graphics produced by Lotus 1-2-3, PC PageMaker, Ventura Publisher, Corel Draw, etc. are stored the PIC format, and can be converted to popular Macintosh formats.

PICS
A format that is only used now on the Macintosh for exchanging animation sequences. This format was developed by MacroMind, Inc.

PICT
A vector type image file format of QuickDraw commands, which are used for both text and graphics. This format is native to the Macintosh. There are three PICT format types:

PICT —which can produce graphics up to 64k by 64k (888.8 inches square) in black and white.

PICT2 — is an expanded version of the PICT format which allows 8 bit color or grayscale graphics.

PICT2+ — is an expanded version of the PICT2 format which allows for 24 bit (also called 32 bit) color or grayscale.

PIL (Page Interchange Language)
A common file format that would contain a description of a document created by a page description application or desktop publishing application. This format could be used to move documents between applications.

PNGT (MacPaint)
A one-bit Raster type file format, such as is used in MacPaint files, that is compressed, with a maximum size of 576 bits by 720 bits, where each bit equals one screen pixel (a pixel is one dot on a video screen), of 72 per inch. Therefore, this format allows output of 8 inches by 10 inches. This is the native graphic Raster file format on the Mac.

Postscript
This is a vector type device independent page description language, which is used to format the output of the LaserWriter printers on the Macintosh. Display Postscript is used on some machines, such as the NExT computer, to output images to the screen.

QuickDraw
This is the native description language used by the Mac for all its output to either the screen or printer. The Macintosh only outputs QuickDraw. If it outputs to a Postscript printer, it sends QuickDraw data to a translator program (the LaserWriter Prep file) for conversion into Postscript, which is then sent to the Postscript printer.

QuickTime
An Apple developed multimedia software extension and file format which Apple hopes will become the standard multimedia format.

RIB (Renderman Interface Bytestream)
A file format which can export common 3D file formats into Pixar's Mac Renderman formats or Renderman format's into common 3D file formats. The MacRenderman file format is used for creating photo realistic 3D images.

RIFF (Raster Image File Format)
A vector type format used to store graphics with up to 256 colors or grayscale levels. This format was developed by Lectraset, for use with their graphic programs and is not very popular.

RFT (Revisable Format Text)
An interchange format for word processors which has become the standard on the PC computer, and is used on the Macintosh; also called DCA for Document Content Architecture.

RPC (Remote Procedure Call)
A format that will allow developers to create generic C programming language code for network applications that can run under many different operating systems including the Macintosh.

RTF (Rich Text Format)
A Microsoft word processing text interchange format that is used in all Microsoft word processing and spreadsheet applications to interchange data between different types of computers.

SAA (System Application Architecture)
A file transfer method and format that is used to move files between applications and computers on IBM or compatible main frame, mini and micro computers. The SNA [System Network Architecture] is the communications network which uses the SAA file protocol.

SERIF (Standard Entity Rendering Interchange Format)
A file format which will aid the interchange of page-layout files between page layout applications and between various computers.

SGMA (Standard Generalized Markup Language)
A text embedded code format, for moving formatted text between various computers.

SITD (Stuff IT)
A Macintosh compression format that uses various compression algorithms, to compress files or reduce their sizes, for disk storage. This format uses the Stuff-IT file compression application which is distributed by Aladdin Systems, Inc.

SMTP (Simple Mail Transfer Protocol)
A file format that can be moved between various platforms with Electronic Mail applications.

SNA (Systems Network Architecture)
An IBM developed file format and protocol for transmitting data through a communication system, where the end users of the communication system are independent of and unaffected by the specific communication system and hardware used for the data exchange.

SNMP (Simple Network Management Protocol)
A file protocol used for managing large wide-area multi-vendor networks including the Internet based university and government wide-area networks.

SYLK (Symbolic Link)
A file format created by the Microsoft Corporation to store data, with format specifications, in cells (rows and columns), represented in standard ASCII. This format is intended to be used for transferring data between spreadsheets from different publishers and between a number of different computers.

SQL (System Query Language)
A file structure and protocol used to define data in a database.

TCP/IP (Transmission Control Protocol/Internet Protocol)
A standard non-proprietary file format and protocol very similar to IBM's SNA, which was developed by Unisys Corporation for transmitting data through a communication system, where the end users of the communication system are independent of and unaffected by the specific communication system and hardware used for data exchange.

TDF (Tab Delimited File)
This is a file format (not graphic), where logical separation of data is accomplished with a Tab (ASCII code 09).

TEXT
Written data stored in the ASCII character code.

3DGF (3-D Geometry File)
A three dimensional interchange file format introduced by MacroMind, Inc. which provides a standard format for exchanging three dimensional data among applications.

TIFF (Tag Image File Format)
This is a vector type file format that is independent of specific equipment, but can be coded and compressed in various ways, with tag identifiers, and can support 24 bit color images. It is normally used as the output from scanners on the Macintosh as it supports huge file sizes (up to 4,096 megabytes).

TrueType
This is a vector type format developed by Apple which is used to hold type outline descriptions and PICT formats in the same file. Normally, the outline portion is sent to a printer, while the PICT portion is sent to the MAC's screen. As the Mac can only display QuickDraw commands, it needs the PICT format, so that an image can be formed on the screen (see the PICT file format descriptions).

TTY (Teletype)
An eight bit terminal format based on the original Teletype terminals, which are used on a public network called TWX. This format is pure ASCII.

VDA-IS (Verband der Automobilindustrie-IGES Subset)
A European CAD file format which is used to exchange both two dimensional and three dimensional geometry and dimensions.

VIP (Visionary Interpreter for PostScript)
An intermediate file format which allows any Macintosh generated document that is saved as a PostScript file to be converted into the Scitex pre-press format.

VITAL (Virtually Integrated Technical Architecture Lifecycle)
An Apple developed information framework for large scale Macintosh networking and file transfer which is hardware independent.

VT52/VT102
These are communication file protocols which emulate the Digital Equipment Corporation VT52 or VT102 terminals.

WPG (WordPerfect Graphics)
A vector type graphic format that is used with Word Perfect and Draw Perfect applications on many different platforms, and is similar to the CGM format.

WKS (Work Sheet)
A file format created by the Lotus Corporation to store data in cells - rows and columns, represented in standard ASCII, with format specification, for their 123 spreadsheet program, version 1A, as well as the Jazz and Symphony programs. This format can be used to transfer data between spreadsheet programs and computers. There is also a WK1 format, which is another similar format that is used with Lotus 123 version 2.0, and a WK3 format, which is used with version 3.0 of Lotus 123.

WMF (Windows Metafiles)
A format which is produced by PC-DOS machines that use Microsoft Windows. WMF can be used by page layout programs.

X-400
A standard file protocol which will allow the transfer of text, voice and images via Electronic Mail (E-Mail) to or from any computer or E-Mail system.

X-500
An enhancement of the X-400 protocol which allows the sending of Electronic Mail (E-Mail) to a specific subscriber, even if the sender does not know the subscriber's E-Mail address.

XMODEM
A file transfer protocol that is error free. This protocol sends data in blocks which is returned to the sender for confirmation. If what is returned is not the same as what was originally sent, the block of data is re-sent. Variations of XMODEM are YMODEM and ZMODEM.

XTND
This is a file translation architecture developed by the Claris Corporation which allows users to access files across different applications and machines. This architecture will enable the creation of file translators that will allow host applications to directly read files created in other formats.

MUG News Service, 1991

Apple & IBM Finalise Technology Alliance

Press Release from Apple Computer

October 2nd: Apple Computer, Inc. and IBM today announced a series of comprehensive agreements that will propel the personal computer industry into a new era.

The historic agreements, in which Motorola, Inc. will play a key technology role, cover a range of hardware and software initiatives and follow the terms of the companies' letter of intent announced three months ago.

For customers, the benefits of the alliance will begin in the near future with Macintosh™ computers communicating even more readily in large-system networks.

These agreements then will extend the benefits of IBM RISC and Macintosh technologies across a broader range of open-systems platforms. And longer term, Apple and IBM have formed two software joint ventures that will create exciting new capabilities, make computers easier to use, and make computer programming simpler and much faster.

For the industry, these initiatives will expand business opportunities for developers and other vendors while accelerating the pace of technology creation. And while IBM and Apple will work together to cultivate these opportunities, they will continue to compete unrelentingly with their own systems.

"These agreements are the foundation for a renaissance," said John Sculley, Apple's chairman and chief executive officer. "We're dramatically expanding customers' choices while lowering their risks when buying computers. We're making open systems even more powerful and easier to use. And we're building new foundation technologies that will be a framework for innovation across a vast array of industries."

John F. Akers, chairman of IBM, said: "The second decade of personal computing begins today. Increasingly, systems software and semiconductor technology are defining where essential value is added to computers. With this alliance, Apple and IBM are drawing on their strengths — and those of Motorola — to continue setting the pace for our customers."

George Fisher, chairman and chief executive officer of Motorola, added: "These agreements combine the unique talents of three great companies to create a powerful new computing platform. Motorola is proud to invest its microprocessor design and manufacturing leadership in this seminal undertaking."

The alliance consists of five distinct technology initiatives. Three expand the companies' current technologies. Two focus on the creation of new foundation technologies.

Expansion to Current Technologies

- Macintosh and IBM systems networking: Through new development and technology and software licensing, Apple and IBM will add to the range of customer options for integration of Macintosh personal computers into IBM networks. The first products from this agreement will be available as early as December 1991.
- Powerful RISC microprocessors: Apple, IBM and Motorola will create a new family of Reduced Instruction Set Computing (RISC) microprocessors optimised for personal computers and entry-level workstations. Derived from IBM's single-chip implementation of its POWER RISC architecture, the new PowerPC™ chips will be designed in Austin, Texas by Motorola and IBM engineers. The PowerPC chips, to be used in some future Macintosh and IBM products, will be manufactured and made available for sale to the industry by Motorola. They are expected to be available in two to three years.
- Open-systems platform: Apple and IBM are announcing PowerOpen™, a new open-systems environment made possible through licensing agreements. PowerOpen derives from AIX®, IBM's industry-standard version of UNIX®; the Macintosh interface; and the POWER architecture. The environment enables a system to run both Macintosh and AIX applications on RISC-based hardware from both companies.

Examples of PowerOpen systems will include some future RISC System/6000's™ and RISC-based Macintosh systems. This easy-to-use, standards-based environment is expected to be available in two to three years. IBM will continue to enhance its RISC System/6000 independently. Apple also will continue to enhance its A/UX™ offering.

New Foundation Technologies

- Multimedia joint venture: Apple and IBM will form a new independent company that will create and license multimedia technologies for a wide range of companies and industries. Products resulting from the joint venture will be available in the mid-1990s.
- Object-oriented software joint venture: Apple and IBM will form an independent joint venture that will develop a next-generation operating environment based entirely on object-oriented technology. The joint venture will license the technology widely, and both parent companies will use it in future products. Apple will integrate aspects of this object-oriented technology into Macintosh. IBM will integrate aspects of object-oriented technology into OS/2® and AIX. The fully object-oriented environment is expected to be available in the mid-1990s.

As part of the agreements, Apple and IBM also announced a cross-license of patent and visual displays, including a limited license to the Macintosh visual displays.

Agreements have been submitted for government review and effectiveness of each is subject to conditions, including closings.

EXCEL 3.0 Keyboard Shortcuts

by Geoff Wood

Regular users of Excel know that you rarely need to use the mouse. Many commands can be issued from the keyboard by using a combination of the Command, Shift and Option keys with a character key on the keyboard or with a Function key on the extended keyboard.

The Quick Reference Guide that comes with Excel 3.0 gives keyboard shortcuts in alphabetical order, grouped by function. But there is no easy way to find the shortcuts associated with each key. I created my own lists which are printed here for the convenience of other users.

Some shortcuts are easy to remember, others not, but you can invent your own mnemonics.

The shortcuts for the menu commands New, Open, Save, Print, Quit and Copy follow the convention of holding down the Command key and pressing the initial letter of the command. Other alphamnemonic commands are E for Extract, F for Find (in a database), G for Goto and I for Insert. Some shortcuts use the initial letter of the second word of the command, e.g., A for Select All, D for Fill Down, R for Fill Right and W for Close Window.

Clearly, not all the shortcuts can be alphamnemonic but there are other ways of remembering them. The Delete command is Command-K (think of a knife to cut out the cells). The Cut command is Command X (like a pair of scissors). The Paste command is Command-V (like the symbol used by proof-readers to show where to insert extra words). The Undo command is Command-Z (think of a zip to undo or redo quickly). Another aide memoire is that the Z, X, C and V keys are all together at the bottom left of the keyboard just above the Command key.

In the Formula menu, the keyboard shortcut for the Find command is Command-H but this shortcut should be called Find Next because it looks for the next cell containing the information currently entered in the Find What dialog box. (If the Find What dialog box is empty, it finds the next blank cell.) The keyboard shortcut to display the Find What dialog box is not shown on the menu. It is Command-J. (Think of H for hunt and J for jump.)

In the Edit menu, the keyboard shortcut for the Clear command is Command-B (for blank). However, Command-B clears only the entry; it does not clear formats or notes. There is no keyboard shortcut to display the Clear command dialog box. You can create a macro for it or you can use the key sequence /EE. (The Slash key activates the menu bar, E chooses Edit and the second E chooses Clear.)

Of the remaining alphabetic characters, L displays the Define Name dialog box (think of a label), M activates the next window (think of a move), T changes the $ signs in cell references (it toggles), U activates the formula bar (to update) and Y repeats the last command (yet again).

Before looking at the use of the non-alphabetic characters with the Command key, it is useful to review the use of the alphabetic keys with the Shift and Command keys.

Six combinations of Shift-Command with an alphabetic key actuate a command which is the counterpart of that based on the use of the same alphabetic key with just the Command key. These are Shift-Command-C to copy a picture, F to find the previous example in a database, H to find the previous example in the Find What dialog box, M to activate the previous window, S to display the Save As dialog box and V to display the Paste Special dialog box.

Another six combinations give font formatting. Thus Shift-Command-B toggles bold face on or off, U toggles underline on or off, I toggles italic on or off and Shift-Command-P gives plain text. These are easier to remember than D for outline font and W for shadow. (Strikeout is switched on or off with Shift-Command plus the hyphen/underline key.)

Five combinations have the same effect as using just the Command key with the same character. These are Shift-Command-E for Extract, G for Goto, Q for Quit, X for Cut and Y for Repeat Last Command. (Why didn't Microsoft make better use of these combinations?)

Two combinations of Shift-Command and an alphabetic key do nothing. These are A and R.

Two other combinations are carried over from Excel 2.2. These are Shift-Command-N to display the Cell Note dialog box and O to select all cells that contain notes.

The remaining five combinations are new to Excel 3.0 These are Shift-Command-J to promote a row or column to a higher level within an outline, K to demote a row or column to a lower level, L to display the Style dialog box, T to automatically sum the numbers in the cells in the column above the active cell (or in the row to the left of of it) and Z to select Visible Cells only.

None of the alphabetic character keys perform a command when used with the Command and Option keys because these combinations are reserved for macros. With Excel 2.2 I created a set of macros to change alignments, using Option-Command-c for Center, l for left, r for right and g for general. I named the macro file 'Excel Startup' and placed it in the System Folder so that it opened automatically every time I started the program. Excel 3.0 lets you change the alignment by clicking on icons in the tool bar but I prefer to use the keyboard macros.

Turning now to the non-alphabetic keys with the Command key, only three of the numerals offer shortcuts. These are 6 to hide or display objects, 7 to hide or display the tool bar and 8 to hide or display any outline symbols. These shortcuts are new to Excel 3.0.

None of the symbols above the numeral keys offers a shortcut with the Command and Shift keys but seven of them (above the numbers ☛

1 to 7) offer number formatting with the Option, Command and Shift keys. These are Option-Command-Shift-! for #,##0.00, @ for h:mm AM/PM, £ and $ for £#,##0.00, % for 0%, ^ for 0.00E+00 and & for d-mmm-yy.

It may seem odd that the £ and the $ combinations give the same formatting. In the U.S.A. version, the $ combination gives $#,##0.00 and the £ (# on the American keyboard) gives d-mmm-yy. It is a pity that Microsoft did not change the $ combination on the British version to give, say, d-mmm-yy or perhaps £#,##0. Instead, they used the & character to give the date format, yet this format can be obtained by using Option-Command-3.

The keyboard shortcut for the General number format is Option-Command-~. This is easy for people with the Mac Plus keyboard to remember because the ~ key is at the left of the top row. It is not so easy for users of the newer keyboards where the ~ key is to the left of the z key.

Two other symbols above the numeral keys perform keyboard shortcuts. One of these is the * key (above the 8) which performs the Select Special 'Current Region' command. The other is the) key (above the zero) which puts an outline border round the selected cells. (Why didn't Microsoft use the letter O (for Outline) instead of the number zero?)

Excel 3.0 offers 23 different number formats, yet only 7 of them are available from keyboard shortcuts. I created several macros for number formatting for Excel 2.2 and included them in the Excel Startup file described above. These include Option-Command-z for the 0 format, d for 0.00, p for £#,##0 and P for 0.00%.

Most of the other symbol keys actuate commands in combination with the Shift and/or Command keys. Space does not permit a discussion of these but you can study the table and learn those that you find useful. Excel 3.0 also has two sets of shortcuts which use the Control key (not shown in the tables). These are Control-zero to format a column with zero width and Control-9 to format a row with zero height. Shift-Control-zero 'unhides' the hidden column; Shift-Control-9 'unhides' the hidden row.

Users of the extended keyboard may like to study the other table. It shows the effect of each function key alone and also with the Shift and Command keys. Some of these simply duplicate commands that can be achieved on a normal keyboard but others are unique. One of the most useful is Shift-F8 which lets you extend a selection to include two or more ranges of cells.

Incidentally, you don't need the mouse to select a block of cells. Just hold down the shift key and use the arrow keys to select a block. If you hold down both the command and shift keys, the selection will extend to the edge of the current region. If you have an extended keyboard, you don't need to hold down the shift key. Just press F8 then use the arrow keys to extend the selection.

Table 1: Shortcuts with Alphabetical Character Keys

Key	With command key	With command& shift keys
A	Select all cells or all objects or chart	
B	Clear (not format)	Bold, on/off
C	Copy	Copy picture
D	Fill down	Outline font, on/off
E	Extract	Extract
F	Find next (Data menu)	Find previous
G	Goto	Goto
H	Find next	Find previous
I	Insert	Italic, on/off
J	Find (Dialog box)	Promote a row or column
K	Delete	Demote a row or column
L	Define name	Style box
M	Activate next window	Activate previous window
N	New	Note
O	Open	Select Special, Notes
P	Print	Plain font
Q	Quit	Quit
R	Fill right	
S	Save	Save as
T	Reference ($'s)	Auto-sum
U	Activate formula bar	Underline, on/off
V	Paste	Paste special
W	Close window	Shadow font, on/off
X	Cut	Cut
Y	Repeat last command	Repeat last command
Z	Undo	Visible cells only

Table 2: Shortcuts with Non-Alphabetical Character Keys				
Keys	With command key	With command & shift keys	With command & option keys	Option, command & shift keys
§ and ±				
1 and !				#,##0.00
2 and @				h:mm AM/PM
3 and £			d-mmm-yy	£#,##0.00
4 and $				£#,##0.00
5 and %				0%
6 and ^	Hide/display objects			0.00E+00
7 and &	Hide/display tool bar			d-mmm-yy
8 and *	Outline symbols			Current region
9 and (				
0 and)			Border outline	
- and _	Current date	Strikeout font, on/off	Remove all borders	
= and +	Calculate all docmnts	Calculate active docm		
[and {	Precedents direct	Precedents all		
] and }	Dependents direct	Dependents all		
; and :	Current time	Current time		
' and "	Form. from cell above	Value from cell above		
\ and |	Row differences	Column differences		
` and ~	Display formulas			General No. format
, and <				
. and >	Cancel	Cancel		
/ and ?	Help window	Context help		
←	Left one block	Select to left edge	Border left	
→	Right one block	Select to right edge	Border right	
↑	Up one block	Select to top of block	Border top	
↓	Down one block	" bottom of block	Border bottom	
Enter	Array formula		Text wrap in form. bar	
Return	Array formula		Text wrap in form. bar	
Spacebar	Select column	Select all cells or objs		
Spacebar	with Shift key = Select row			

Table 3: Shortcuts with Function Keys				
F Key	Function key only	With Shift key	With Command key	With command & shift keys
F1	Undo	Context help		
F2	Cut	Note	Show info	
F3	Copy	Paste function	Define name	Create names
F4	Paste		Close active window	
F5	Goto	Find (dialog box)	Restore window(s)	
F6	Next pane	Previous pane	Next window	Previous window
F7	Find next	Find previous		
F8		Add to selection		
F9	Calculate all docmnts	Calculate active doc.		
F10	Activate menu bar		Zoom/shrink window	
F11	New chart	New worksheet	New macro sheet	
F12	Save as	Save	Open	Print
F13				
F14	Scroll lock	Scroll lock	Scroll lock	Scroll lock
F15				
Home	Start of row	Cell A1		
End	End of row	Last cell		
Page up	Up one screen	Left one screen		
Pg down	Down one screen	Right one screen		

Press Releases

Adobe Illustrator 3.2

Adobe Systems Incorporated announced Adobe Illustrator 3.2, a 'System 7 savvy' version of its award-winning drawing and illustration program for Apple Macintosh computers.

The upgrade supports all Apple Events and takes advantage of System 7 functions including Publish and Subscribe, which allows inter-application communication between System 7-compatible applications, and supports TrueType font technology. The new version also offers 32-bit support for Macintosh computers equipped with 8 MB RAM and includes an Adobe Photoshop 2.0 tryout kit.

In addition to offering System 7 support, Adobe Illustrator 3.2 also includes four of the industry's most popular process colour communication systems: PANTONE four-colour process, TRUMATCHTM, Toyo and Focoltone. Now users can use a four-colour process colour palette of their choice.

The minimum system requirement for Adobe Illustrator 3.2 is an Apple Macintosh computer (Plus, Classic, SE family, II family, LC or Portable) with System 7.0 software and the latest version of ATM. A minimum of 4 megabytes of RAM is recommended when using System 7.

Adobe Illustrator 3.2 is expected to be available from Adobe authorised retailers in November 1991. The suggested retail price is £550.

Registered Adobe Illustrator users will be informed by Adobe about purchasing the Version 3.2 upgrade directly from Adobe or their distributor. The suggested retail price for the upgrade is £35.

Adobe Type 1 Coprocessor

Adobe Systems have announced the Adobe Type 1 Coprocessor, a new fontrendering hardware technology that will eliminate character generation as a bottleneck in printer and display performance. A major breakthrough in printing and display technology, the Coprocessor is capable of rendering text at up to 2000 characters per second, or 25 times faster than today's fastest RISC based printer controllers.

The Adobe Type 1 Coprocessor is a single VLSI (Very Large Scale Integration) processor circuit that performs in hardware all the steps of rendering characters from any of the more than 10,000 available Adobe Type 1 outline fonts. Those steps, traditionally performed in software, include font program interpretation, hint processing, transformation of font outline coordinates and intelligent filling of characters.

The Adobe Type 1 Coprocessor can be thought of as a very fast, hardware-based version of Adobe Type Manager (ATM) software. Like ATM, the Coprocessor renders characters from Adobe Type 1 character outlines, ensuring precise WYSIWYG correspondence between display and printed output. The Coprocessor uses the same Adobe Type 1 character outlines as ATM and generates the same high-quality bitmaps.

The Coprocessor can be incorporated into PostScript printers and display controllers. Printers with the Coprocessor will be able to run at their rated engine speed, regardless of the number of fonts or point sizes in a document. Even Kanji printers, which present a difficult font processing burden, can print at their rated engine speed. Production printing and publishing systems become capable of throughput greater than 100 pages-per-minute, even when printing documents containing multiple fonts.

The microcode architecture of the Adobe Type 1 Coprocessor allows for the inclusion of subsequent advances in PostScript software technology. For example, the Coprocessor supports the Multiple Master font technology announced by Adobe earlier in 1991, which enables users to create unlimited typeface variations and a broad range of customized characters from a single outline typeface.

Adobe is now supplying its OEM customers with samples of the Adobe Type 1 Coprocessor for development purposes. Adobe will provide consultation, modification and custom design services to help OEMs make optimal use of the new technology.

Multi Ad Creator 3.0

Multi Ad Creator Version 3.0 is now shipping with EPSF support to provide ads that can be dropped effortlessly into QuarkXpress. Colour separations can also be created in Creator and exported to Xpress together with a colour or black and white preview. But there's more. Creator 3.0 offers not one but two colour matching systems. One for the established Pantone system and another for Focal Tone a new economy matching system. Traps, Chokes and other colour tools are handled with intuitive on screen prompts.

Creator is now evolving into a fast and powerful page layout tool for graphics artists who need a wide range of specialist tools such as copyfit, make matrix, text effects, multiple layouts and a range of colour tools in one package. At the newspaper end of the market, integration of Creator files into Xpress has been a priority which Version 3.0 satisfies. At the graphics end colour matching and control have been much in demand and version 3.0 satisfies these needs and more.

FocalTone is similar to Pantone but does not require an extra run on the press. FocalTone allows the operator to colour match by providing suitable separations using standard process colours.

Object level colour trapping with negative and positive offsets provides greater control when overprinting or knocking out artwork. For good measure print speeds have been accelerated by between 35 and 50%.

Adrian Goodman, a Director of Studio Box enthused, "We have been asking for these additions for over a year and are delighted to see them in version 3.0. When these are combined with the customisable data base of ads, freehand tool, scaling, typographic control right down to em & en spacing, the styles and tags, 71 borders and coupons, the starburst and 39 Postscript effects and gradient fills and a host of other features, they add up to a very, very powerful advertising and brochure tool."

The upgrade will cost £95.00 for existing users of 2.5 and an extra £35 for users of older versions. Studio Box, the sole UK distributors will hold the price at £775.

For Further Details please contact Adrian Goodman on: (0734) 502556

Terminator and the Future

By Dan Gutman

"Terminator 2: Judgement Day" is more than an $85 million mindless summer no-brainer. It's also the beginning of the future when motion pictures will merge with personal computers.

When you see the movie, pay careful attention to the scene where Arnold Schwarzenegger appears to jump over a wall on a motorcycle. That's not Schwarzenegger, and the motorcycle isn't jumping.

The scene was made with the actor's double simply SITTING on the motorcycle as it was slowly pulled over the wall by heavy wires. After the scene was shot, the wires were ERASED from the image, making it appear as though the bike leaped over the wall. It would have been an impossible stunt to perform , at least on this planet.

This new technique of manipulating the finished image is called "digital processing" or "digital compositing," and it provides the key to future computer entertainment. The movie frame has become a computer screen, broken down into thousands of tiny dots that can be manipulated as numbers.

Digital processing was used in scenes involving the android called "T-1000," which has the ability to assume the shape of anything it touches. When its skin oozes like jelly and it walks through steel gates, that was all done on computer by digital processing.

The leader in digital processing is Industrial Light and Magic, the special effects shop formed by George Lucas in 1975. Ever since "Star Wars" ILM has been using computers to manipulate objects in front of the camera. Now they're manipulating the image after it has been recorded.

Digital processing has been used to create otherwise impossible effects in "The Abyss," "The Hunt for Red October," "Star Trek III," "Willow" and several other movies.

The significance of the process is that it means motion pictures and computer games can become like animation—anything that can be imagined can be put on the screen. But unlike animation, the images become so convincingly realistic that they look as though they were photographed without tricks.

—Need to shoot a shark biting off Richard Dreyfuss's head for "Jaws 9"? No need to build a giant mechanical shark. With digital processing, the beast can be created on screen and added to a frame of Dreyfuss screaming his head off.

—You're twenty million dollars over budget and you just made a mistake that will cost another million. No problem. Just wipe the flub off the image the same way you'd delete a word or paragraph from a word processing document.

—Sean Penn walks off the set in the middle of the picture? Big deal. Hire Charlie Sheen and superimpose his face over Penn's in every scene.

—Want to shoot a movie starring the long-dead Clark Gable and the currently-hot Julia Roberts? The computer can digitize Gable's face and combine it with live action footage of Roberts.

Once the images for the silver screen are being created on computer screens, there will be nothing to prevent computer GAMES from looking like motion pictures.

For years, software publishers have dreamed of computer games that will look like movies but allow people to interact with them. Even the best of today's computer games look, at best, like bad cartoons. The first computer game that truly looks like a motion picture will be the equivalent of when movies went from silents to talkies.

Look for future movies and computer games that play with imagery so skillfully that it will become impossible to tell what's real and what's not.

MUG NEWS SERVICE, 1991

Apple Announces

Product Descriptions from Apple Computer

LaserWriter IIf

The 300 dot-per-inch Apple LaserWriter IIf makes use of Apple's proprietary FinePrint technology to provide for smoothing jagged edges that are frequently found in documents created by laser printers.

The unit is expandable and can be upgraded with Apple's PhotoGrade capabilities by increasing RAM to 5 megabytes to enable printing documents that include high-quality scanned images and graphics. PhotoGrade allows printing of images with more than 65 levels of gray.

To meet the needs of networked user groups, the LaserWriter IIf comes with built-in LocalTalk networking capabilities for use with an AppleTalk network system. This printer is also designed so that it can be simultaneously connected with multiple kinds of networks and computers. There's no need to manually reconfigure the printer to receive data through a particular port.

The LaserWriter IIf will print documents up to two times faster than with the LaserWriter IINTX due to the incorporation of a high-speed controller and Adobe's PostScript Level 2 software. This generation of PostScript language improves printing speed, adds new capabilities, and is fully compatible with existing applications and drivers.

The product includes: Apple LaserWriter IIf printer; toner cartridge; letter cassette; installation and font disks; power cord; owner's guide, The Basic Elements of Design guide, and a limited warranty statement.

LaserWriter IIg

As of this writing, the Apple® LaserWriter IIg printer is the most powerful and most capable LaserWriter ever built by Apple. The LaserWriter IIg is an expandable network printer that makes use of PhotoGrade technology. The unit can print images with more than 65 levels of gray and is capable of smoothing jagged edges by using its FinePrint technology.

LocalTalk capabilities allow for plug-and-play simplicity when connected to an AppleTalk network. The LaserWriter IIg has built-in Ethernet features for easy connection to high-speed EtherTalk networks. The unit can be connected simultaneously to Ethernet, LocalTalk, and other serial interfaces. The LaserWriter IIg can be connected to multiple types of computers or networks.

Incorporation of a high-speed controller and Adobe's PostScript Level 2 software results in document printing at a speed of up to twice the speed of the LaserWriter IINTX. The newest generation of PostScript improves printing speed and adds new capabilities over previous models, and is fully compatible with existing applications and drivers. The IIg is also compatible with the Hewlett Packard LaserJet IIP (PCL 4+) emulation software.

This product includes: Apple LaserWriter IIg printer; toner cartridge; letter cassette; installation and font disks; power cord; Owner's Guide, The Basic Elements of Design guide; and a limited warranty statement.

Apple OneScanner

The Apple OneScanner is a flatbed scanner that makes use of Ofoto scanning software from Light Source, Inc. Ofoto allows users to choose between automatically scanning by single clicking the mouse and manual user control of each aspect of the scanning process. The OneScanner provides for gray-scale scanning with 256 levels for photographic-quality black-and-white images.

Quality is enhanced through high-quality rotation and scaling algorithms.

System 7 Balloon Help can be used to find out about OneScanner features while working by merely pointing to the feature on the screen.

This unit comes with scaling tools for choosing the exact size of images to be scanned. Image rotation and manipulation can be performed with no loss of quality. With the OneScanner, images can be obtained through any printer —from the Apple StyleWriter to professional imagesetters.

HyperScan 2.0 software is included, allowing for incorporation of high-quality scanned images into HyperCard 2.0 stacks. This unit is compatible with all Macintosh computers and with most Macintosh applications, including word processing, presentation, graphics, database, and page layout programs.

The OneScanner is compatible with PICT, TIFF, EPS, and MacPaint file formats.

This product includes the Apple OneScanner; Ofoto application software; HyperCard stack HyperScan 2.0; power cord; sample image; complete setup, learning, and reference documentation; and a limited warranty statement.

MugNews Svc. "1991 Utility of the Year"

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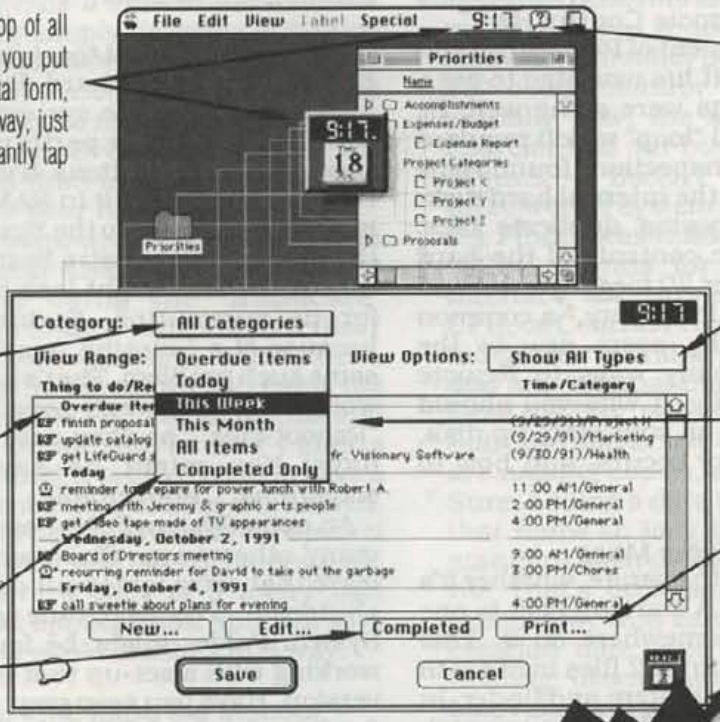

Under System 7, balloon help is available. (Runs on System 6.0.4 or later).

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System folders: there can be too much of a good thing

By Tom Pitts

During a recent visit to my brother-in-law's home, I witnessed the unveiling of his new entertainment system. With its impressive CD player, VCR, laserdisc player, 45" TV, and cable box, it also had five remote controllers. I attempted to tune in a basketball game but succeeded only in starting the washing machine and opening every garage door on the block. Although it was a beautiful system, I had inadvertently discovered "Remote Control Hell."

I found the computer equivalent of Remote Control Hell when a friend showed off his new Mac to me a couple of weeks later. Things were going well, he said, except for an occasional "loop" which required a reboot to correct. On close inspection I found some five or six System Folders on the internal hard disk. By the time I finished removing duplicate files, folders and applications, the contents of the hard disk had been reduced by over 20 megabytes![1] I had encountered "System Folder Purgatory," a common ailment of Macs operated by users new to the machine, and similar in many ways to Remote Control Hell. Let's look briefly at why you should have only one System Folder on your start-up disk, how System Folder Purgatory occurs, and how to prevent it.

Gentlemen, start your Macs

All Macs need a start-up disk to operate, whether it's a floppy disk or a hard disk. A start-up disk is one that has a System Folder somewhere on it. This folder must contain a minimum of 2 files in order to successfully start up, or boot: system and finder. In addition, it may contain INITs (start-up documents), cdev's (control panel devices), RDEVs (Chooser devices), and other system documents.

When you turn on your Mac, the search begins. The Mac first accesses its read-only memory, (ROM) where some of its essential programs are stored. It then searches for a start-up disk. The first place it looks is the internal floppy drive. If there is no startup disk there, it looks to the external floppy drive port for either a floppy drive or a serial hard disk, then to the SCSI[2] port starting at address 0, then at the other SCSI addresses commencing with number 6 and working its way down to number 1. As soon as a start-up disk is found, your Mac smiles as the system, and the other system files, are loaded into RAM. If no start-up disk is found, you will see the infamous "blinking question mark" on the screen. After a successful load, the desktop appears showing the contents of all mounted volumes.

Swapping start-up disks can cause confusion

A hard-and-fast rule to live by is to have only one System Folder on a hard disk. There is an exception to this rule, however. You can divide, or "partition," a hard disk to make the Mac see it as more than one volume. Each volume can have a System Folder. Other than this exception, never put more than one System Folder on a hard disk![3] There are practical reasons for this rule as well. I'll bet you probably spent a lot of time personalizing your system with your favorite DAs, INITs, cdev's, etc. Picking the desktop pattern, deciding how things will be viewed...that sort of thing. If you switch systems, by running an application on another start-up disk for example, you will have a system running that might be different from your personalized version, unless you have configured it as well. This can be disconcerting.

If you're running MultiFinder, and you think that you can just switch to your old, familiar system, think again. You cannot switch systems while running MultiFinder.

Mac-foolery

Extra systems on a hard disk can fool the Mac and lead to crashes. The system is loaded into RAM at start-up, but may be partly purged from RAM as you run various applications. If your Mac needs a system routine, it looks for it in RAM. If, for some reason, it is not there, it goes to the System Folder to get it from the system file. An extra System Folder lying around means the Mac might look to the wrong system file for its subroutine. Suddenly, a bomb occurs, because of a "missing" resource, an ID conflict, or some such problem. That's bad enough, but it can be worse: if you haven't saved your work, it's gone! "Reboot-ville," as they said in the very early Mac days! You might be saying something else, something... unprintable.

An extra System Folder can get you into trouble in many other ways. One problem could arise if you leave that extra folder out on the desktop when you shutdown. The next time you boot up, the extra System Folder might be found first and you'll be working with a set-up that is not your personalized version. Have you seen your favorite DA's under the Apple menu lately? You haven't? You won't, if you start up with the wrong system.

System Folder sneak attack

Extra System Folders get onto your hard disk by only one route. They are copied to it, usually by accident. Many commercial applications come with a "System Disk," or with Apple's system software on the disks. This ensures that the buyer has a System and a Finder compatible with the software. The theory here is that, if the buyer doesn't have a hard disk, he or she can just start up from the master disks.[4] Unfortunately, many folks copy the entire contents of a floppy disk to their hard disk by dragging the floppy disk's icon to the hard disk. The Mac tells you that "the disks are two different types — do you want me to create a new folder?" and gleefully creates a new folder on the hard disk with same name as the floppy disk. This is the moment when the

unnecessary System Folder sneaks its evil way onto your hard disk.

Many computer users like to keep a copy of everything. If you duplicate a folder, by using the "duplicate" command for example, its entire contents, including any superfluous System Folders, are also duplicated. Furthermore, it is unnecessary and potentially dangerous to have duplicates of your applications, on the same hard disk, that have the same name. It's essential to back up your work, but duplicating folders is not the way to do it. The correct way to back up is to another volume, either floppy disk or hard disk. The easy way to back up is with a backup program such as DiskFit or FastBack. Making duplicates of the System Folder can lead to Hard Disk Death. The record for multiple System Folders on one volume (as related to me by Peter Breitner) is sixteen!

Living a clean life

Fortunately, System Folder Purgatory is easy to avoid. First, use Apple's installer software as the only means to install or upgrade a system disk. Do not make a start-up disk by simply dragging a System Folder onto it. Second, do not copy a floppy disk to your hard disk without carefully examining the contents of the floppy first, to make sure it does not contain system software. Even better, read the instructions (yes, I said that) on how to install the commercial software on your hard disk.

Finally, use a good back-up program to insure against loss of your hard disk's contents. Do not duplicate folders, by using the "duplicate" command, in an attempt to keep copies of your files/documents. If you want to save a copy of a document, select "Save as ..." from the File menu and name the file "Copy of ..." or "Filename #2." I often do this and add a date to the title before and/or after I alter a document.[5] Remember that it is often good to save a copy of a single document before or after it is altered. If a project is ultra-important, you can save copies of a file, as you're working on it, to a backup floppy disk. It is rarely good to save a copy of a folder that contains many files and applications. You will save valuable disk space and avoid crashes this way.

When all else fails, RTM: Read the Manual

This has only been a brief overview of the many problems you can get into with multiple System Folders and duplicate applications on your hard disk. If you wish, there is more you can read on the subject. The Macintosh Bible has some interesting reading on this topic: buy it from MacValley if you don't already own it — we've got the best price in town.[6] The documentation that comes with HeapTool, a shareware item found on the February DOM, also provides excellent insight into how many system crashes occur. I also recommend Apple's manuals that come with the System Software. Often, the only difference between an expert software user and a novice user is that one of them has bothered to read the manual!

Tom Pitts

6730 Sunnyslope Avenue, Van Nuys, CA 91401

[1] Lest you think this kind of thing never happens, let me assure you it does...all too often. Recently, a MacValley member bought a MacII, hard disk, and 13" color monitor for only $1200. Although virtually new, the man who put the ad in the Recycler told our buyer that "this thing is a piece of junk—it doesn't work!" Later, he discovered there were 5 system folders on the hard disk, and the Finder was missing!

[2] "SCSI" stands for Small Computer Systems Interface, and provides a fast, direct route to the CPU, or Central Processing Unit. There are 7 SCSI "addresses" on a Mac, with the CPU itself at number 7, and any internal hard drive at number 0.

[3] Read my lips: never!!

[4] Start up from a copy of the master disks, right? You are making copies, aren't you?

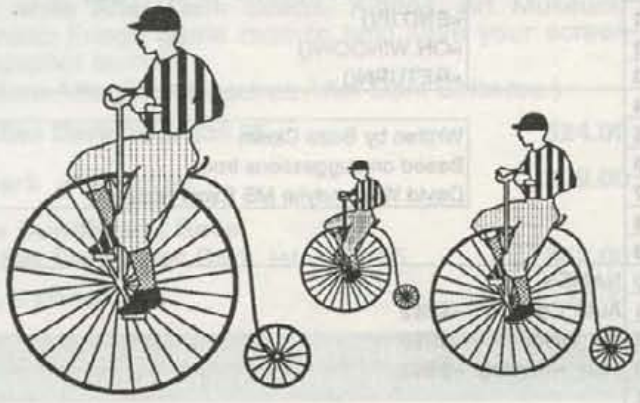
[5] Sure, adding a date to the name of a file can make that name so long that you can't read it all in a standard open or save dialog box, but do we care? No! That's because there are utilities, such as NameView, that can let you see the whole name, creation date, and other interesting details by holding down the option key. Find them on MacValley's Disk of the Month.

[6] Buy it even if you don't care about this subject. Chances are this book will save your life sometime in the next 6 months.

Bicycles are user-friendly?

It is rumoured that Apple (U.S.A.) have purchased 75 bicycles, for the use by employees when travelling around the extensive Apple complex at Cupertino.

A Bicycle Parade around the campus was just one of several activities designed to raise employees' awareness of alternative forms of transport — which, in turn, is part of Apple's overall policy to be more environmentally-friendly.



Set Default Folder notes

Excel 3.0 doesn't set the default folder correctly under System 7.0. It always defaults to the folder containing the application.

Place the "Set Default Folder" add-in in your Excel Startup Folder to get Excel to default to the folder containing the document you opened.

Written by Bozo Clown

P.S. The following technical details are for the incurably curious:
David Wortendyke, MS Excel Support, suggested the following work around when I complained that Excel 3.0 didn't set the default folder like it used to.

"an Add-In with a set of two macros which alleviate this problem:

```
add_in =ON.WINDOW(,do_it) =RETURN()
do_it =DIRECTORY(GET.DOCUMENT(2)) =ON.WINDOW() =RETURN()
```

Type these into a macro sheet, name each one, save this as an Add-in in your Excel Startup Folder, then restart Excel. Let me know if you have any trouble implementing this."

Well, this works as long as the documents are not at the root level.

The accompanying Excel 3.0 "Set Default Folder" add-in is based on David's suggestion with a fix for documents at the root level. You can check out the details by opening a copy of the "Set Default Folder" as a macro (hold down the shift key as you open it) and reading the macro comments.

Note added by Geoff Wood:
I used the Paste List command to show the named cells in cells A21 to C23. You don't need to type this information into the macro sheet.

Set Default Folder

	A	B	C
1	Names	Commands	Comments (both start_watching & set_folder are command macros.)
2	*Auto.Open*	**start_watching**	Auto Opens at startup and starts watching for an active window.
3		=ON.WINDOW(,set_folder)	Turn the ON.WINDOW "event loop" on;
4		=RETURN()	when the first window is activated set_folder will be run.
5			
6	*set_folder*	**set_folder**	Sets the default directory to the active window's directory.
7		=IF(ISERROR(SEARCH(":",(GET.DOCUMENT(2)))))	If we're at the root level there won't be a ":" in the path.
8		= DIRECTORY(GET.DOCUMENT(2)&":")	We're at the root level; DIRECTORY needs a final ":".
9		=ELSE()	
10		= DIRECTORY(GET.DOCUMENT(2))	We're in some folder; so nothing needs to be added.
11		=END.IF()	
12		=ON.WINDOW()	Turn the ON.WINDOW "event loop" off.
13		=RETURN()	Note: the cell named "set_folder" must contain the value set_folder.
14			
15		Written by Bozo Clown	*Place this add-in into the Excel Startup Folder to set the default folder*
16		Based on suggestions from	*to the one which contained the document which was opened to startup*
17		David Wortendyke MS Excel Support	*Excel 3.0 when running under System 7.0.*
18			
19			
20	NAMES		
21	Auto_Open	=$B$2	0
22	set_folder	=$B$6	2
23	start_watching	=$B$2	2
24			

Press Releases

MORE AFTER DARK: THE NEW BATCH

Berkeley Systems, Inc. has announced the release of More After Dark, an all-new collection of more than 25 add-on displays for its topselling Macintosh screen saver, After Dark. The collection (dubbed the MAD pack) includes Tunnel, GraphStat and Mowin' Man, the winners of the 1990 After Dark Display Contest, along with new displays of frolicking kittens, ducks in a confetti factory, mountain building and planets viewed from space, among others.

"This is our most innovative collection ever," said Wes Boyd, president of Berkeley Systems. "As well as providing increased functionality with virus scanning and a game module, we've really concentrated on the art. These displays are truly beautiful.

Virex®-D ★★★★★

An important part of the More after Dark package is Virex-D, a virus detector module that Berkeley Systems co-developed with Microcom, Inc., the makers of the popular Virex anti-virus product. When selected in the After Dark control panel, the Virex-D module scans for viruses when After Dark engages. The status of the scan, including percent completed, is displayed in the corner of the monitor.

Virex-D also scans remote volumes across networks. When a virus is detected, the user is notified and given further information on handling the particular virus such as rebuilding the desktop, deleting the file or using virus eradication software. The MAD package also comes with a special offer from Microcom for a free copy of Virex with the purchase of the Virex update subscription service for $75.

Lunatic Fringe

Another feature of the MAD pack is Lunatic Fringe, a playable space game by Ben Haller, the creator of the highly praised shareware game, Solarian 11. Lunatic Fringe provides arcade quality play and 3-D graphics.

Also included in the MAD package are more fish files to import into the Fish! display, and an After Dark Updater to convert any 2.0 version of After Dark to the latest version, 2.0u, to provide full System 7 compatibility.

After Dark 2.0

After Dark 2.0, featuring the now famous Flying Toasters and Fish!, has consistently been at the top of the Macintosh software sales charts since its release in August of 1990, hitting the number one spot for Egghead Discount Software, MacConnection and distributors Macamerica and Kenfil. The Windows version, released in March of '91 also moved to the top of the sales charts, becoming the number one selling Windows utility for Kenfil, and the number one selling IBM PC product overall for Egghead in April '91.

The screen saving displays in More After Dark help parent product After Dark extend the life of monitors. When machines are left on but unattended, images can be "burned in" to the screen, causing permanent damage. After Dark prevents burn-in by automatically displaying entertaining or useful screen art.

More After Dark

More After Dark requires After Dark 2.0 or later, and retails for £20.00 + VAT. After Dark 2.0 retails at £24.00 + VAT.

(Prices quoted from MacLine's list — 081 642 2222).

Registered customers of After Dark will receive a mailer offering the More After Dark package for 50% off.

The product will be available through mail order and retail outlets from Mid-August.

Press Releases

BEAGLEWORKS 19

Seven powerful modules (Word Processor/Database/Spreadsheet/Chart/Draw/Paint/ Communications) let you integrate information with unprecedented flexibility and convenience. The key to BeagleWorks' integration is the linking of information between documents, using a revolutionary technology called In-Context Editing in combination with Publish and Subscribe.

BeagleWorks gives you the ability to easily link documents and combine data from any of the modules into a single document and make changes without leaving that document. This is called In-Context Editing. And if you change the linked information, the original document automatically changes.

BeagleWorks retails at £219 (educational prices available).

DISKDOUBLER

The premier Mac compression utility and the only product containing two exclusive safety methods which will ensure that files will not be damaged. DiskDoubler was recently winner of the prestigious 'Most Promising Newcomer Software Award 1991' at the Boston Macworld Expo.

DiskDoubler retails at £65.

EMPOWER

The industry standard for Macintosh security. The Empower family of security products keeps data secure at a standard chosen by the user. It is an elegant and easy to use product.

The latest version of Empower, 4.0.7, is fully compatible with System 7, supports Virtual Memory and is 32 bit clean. With many new features both Empower I and Empower II will ensure that File Sharing definitions remain safe and secure.

Empower I retails at £139, Empower II retails at £245 (educational prices available for both products).

FLASH

Flash is a fast and friendly file transfer programme. There are no restrictions on what Flash can send or receive. You can send notes to other people on the network and also chat with one or more people in real time. It is simple to operate and fun to use.

Flash retails at £159.

JAG

JAG (short for 'Jaggies Are Gone') is a unique new software utility from Ray Dream, Inc., the publishers of Ray Dream Designer. JAG is the only stand-alone anti-aliasing software for the Mac and is 'the ATM of the graphics world'.

It removes jagged edges from PICT and PICS files automatically and delivers pixel perfect 8 and 24 bit still images and animations.

Jag retails at £89.

MACFORTRAN II

MacFortran II has been designed to exploit the speed and power of the Macintosh SE30 and II series and is also equipped to use the 68040 chip. It is the fastest and most flexible executing FORTRAN available to Mac users.

The software is integrated with the sophisticated programming environment developed by Apple specifically for the Macintosh MPW, and conforms fully to Apple's Human Interface Guidelines. MacFortran II is easy to use with many examples of how to compile and execute FORTRAN programmes under MPW.

MacFortran II retails at £449 (educational pricing available).

MACLABELPRO

Transform your printer into a label 'publisher'. MacLabelPro is an application that automates the making of all kinds of labels. Big labels and small labels, floppy disk labels and address labels - MacLabelPro eliminates the fuss long associated with printing labels from databases and word processors. How ?

Because for the first time labelling software comes with templates - specifications for Avery Dennison's range of European-style A4 laser and dot matrix label formats. MacLabelPro is designed to help users merge existing mailing lists from Microsoft Word, FileMaker Pro and other popular programmes with Avery Dennison's complete line of laser or dot matrix labels.

MacLabelPro retails at £115.

RAY DREAM DESIGNER

Ray Dream Designer is a fully fledged design environment for artists, product designers, casual users and Professionals alike who need to turn concepts and ideas into high resolution full colour images. It is also an excellent introductory package to 3D Mac software.

Ray Dream Designer retails at £695 (educational pricing available).

SERIUS

Object-orientated Desk Top programming for the Mac You do not have to know a programming language to use it. Serius uses a graphic, object-orientated approach that lets you build powerful, compact, stand-alone applications that look and work like programmes you buy off the shelf.

SeriusProgrammer retails at £249, SeriusDeveloper retails at £389 (educational pricing available for both products).

For further information on these products, please contact AmtechInternational, 0202 476977.

Press Releases

SwivelMan with MacRenderMan

Paracomp are shipping SwivelMan with MacRenderMan. SwivelMan consists of a new upgrade, Swivel 3D Pro version 2.0, a utility for file format translation and conversion of Type 1 fonts called Swivelizer, QuickPICS for animation compression and playback, some additional environment maps for use in Swivel, and MacRenderMan version 1.2. The new package is shipping, but UK prices are not available.

One of the most exciting and time-saving new features in Swivel 3D Pro is the easy assignment and previewing of shaders, the sophisticated rendering descriptions used by MacRenderMan. In version 2.0 of Swivel Pro, shaders can be assigned as shader Presets that have pre-defined settings and appear in preview form on the model. Using the "BumpyMetal" Preset, for instance, is as easy as applying a colour, and the model will appear wrapped with a PICT file of the "BumpyMetal" effect. After export to MacRenderMan, which runs in the background, the model will be rendered with a bumpy metal surface, with all the photorealism that Pixar has become famous for. The use of Presets can be an enormous time saver. There are 20 Presets supplied in the package and 30 surface shaders optimized for use in Swivel.

This product combination provides the most practical and flexible modeling and rendering solution on the desktop. Swivel excels at speed of modeling, intuitive use, easy linking of object parts, and speed of smooth shading, factors that are critical when designing in 3D. It also supports the use of environment maps, texture maps, and animation capabilities for responsive visualization purposes. When even higher rendering quality is desired, the user can use MacRenderMan to render photorealistic images in the background (under MultiFinder). In this way, the user makes the best use of the Macintosh platform for different projects or phases of a project.

The new features of Swivel 3D Pro version 2.0 are :

- System 7.0 support—Balloon Help, 3D Icons, System 7 bug fixes
- More complete RIB support—additional shaders, Presets with PICT files, revised interface for using and adding shaders, revised RIB output
- Swivelizer—converts from DXF & PICT to Swivel 3D format, and Type 1 fonts to Swivel 3D extrusion objects
- QuickPICS—compression of PICS and PICT files, and advanced playback capabilities, including playback straight from disk, an interlace feature to minimize tearing, and a synchronize to audio feature.

MacRenderMan includes:

- RenderMonitor—for rendering jobs in the background
- RenderApp—for viewing images, managing their display and converting images into standard Macintosh file formats
- PhotoRealistic RenderMan—for picture creation from RIB files, producing the industry's most realistic computer-generated images
- ShaderApp—for creating new shaders that result in new surface appearances and lighting effects
- Sample library of RIB files, shaders, texture maps.

SwivelMan requires 5 MB of RAM (8 MB recommended).

Contact MacLine, 081 642 2222, for UK prices.

ScuzzyGraph

- Monochrome and colour for any Mac with a SCSI port.
- Including the **PowerBooks & Classics!**
- 256 colours for 68030 Macs
- Supports a wide range of displays, including all Apple monitors, any VGA monitor, LCD screens, video projectors, VCRs and TVs.
- Uses SCSI port : no need for an expansion slot
  no additional power drain on your Mac
  installation does not affect warranty
  easily moved between Macs
- Uses its own processor to draw the external screen so your Mac is not slowed down

KEY FEATURES	AVAILABILITY
8 colours on 68000 Macs (see note 1)	NOW
8 colours on 68030 Macs	November 1991
256 colours on 68030 Macs (see note 2)	January 1992
256 colours on 68000 Macs (see note 3)	November 1991
NTSC monitor & VCR supports mono and colour	NOW
PAL monitor & VCR support mono	NOW
colour	January 1992

Models:	640 x 480 in colour / 1024 x 768 in monochrome 1024 x 1024 in colour / 2048 x 1024 in monochrome Any free memory can be used as a virtual desktop
Connections:	SCSI DB25 from Mac; SCSI DB 25 out to next SCSI device DB15hd or DB 15 to monitor
Cables:	(included): Mac-to-ScuzzyGraph 3ft (included): ScuzzyGraph power 6ft
SCSI I D:	User settable
Physical:	10 "D x 10 "W x 2"H; Weighs 4 lbs Colour matches Mac Platinum
Power:	85-270 VAC (International) 20 Watts minimum

Software compatibility: ScuzzyGraph uses QuickDraw. Some games and early Mac software are not QuickDraw compatible, and will not run at all
Software in mono will only run in mono.

Notes

1. Some colour software runs in mono on 68000 Macs.
2. Only Colour QuickDraw compatible software will run in 256 colours on 68030 Macs.
3. Very limited compatibility for 256 colours on 68000 Macs.

MacSolutions Ltd
24 Cliffe Terrace
Keighley
West Yorkshire
BD21 5DP

Phone: 0535 690001

ScuzzyGraph™

Members' Small Adverts are FREE. Please help us to help you. Send your advertisements to us on a disk, in Mac or Apple II text format. We will return the disk, of course. This saves us time, and avoids errors.

Members' Small Ads

Members Small Adverts are FREE. We reserve the right to edit and or omit them. They are placed in this Magazine in good faith. Apple2000 holds no responsibility over items advertised, and buyers purchase at their own risk.

WARNING: The sale of copied or pirated software is illegal.
Please ensure that items offered for sale are new or are re-registered.

APPLE IIGS SYSTEM FOR SALE

-Apple IIGS,mouse,keyboard,Transwarp GS (7MHZ) 3.5 inch disk drive (800K),5.25"disk drive,Colour RGB IIGS monitor,Imagewriter II colour printer with ribbon,Audio Animator (Stereo, MIDI card with mixer),CH products mark IV joystick. Ramkeeper GS with adapter and battery (allows 2 memory cards and ROM disk.Apple 1 meg card fully populated to 1 meg and GS RAM + (can expand to 8 Meg)with 1 meg installed giving total SYSTEM MEMORY to be over 2.256KInc. over 50 magazines , loads of books , all boxed as new with manuals and only has had home use. Box of disks containing over 100 programs(all GS programs). inc.System software and intro disks.
Price **£1350**

GS software for sale
-Laser force GS 1.256meg **£20**
-World tour golf GS 512k **£15**
-Dungeon Master GS 1meg **£20**
-Task Force GS 768k **£20**
-Life and Death GS 768k **£20**
-Prosel GS 512k **£20**
-Cheat Master GS 512k **£5**
-Captain Blood GS 512k **£20**
-Quaterback GS 512k **£15**
-Ancient land of Y's GS 512k **£20**
-The Music studio GS 512k **£20**
-Sierra adventure Games GS 512k (11 progs) .. each **£20**
-Thexder GS 512k **£20**
-Silpheed GS 512k **£20**
-Apple service GS

Apple IIe software.
-The coverted mirror **£7**
-The Gameshow **£5**
-Time Zone (6 disks) **£15**
-Hi-res soccer **£6**
-Mystery house **£6**
-The wizard and the princess **£8**
-Cranston Manor **£8**
-Ramup vers.4.0 ..... **£10**
-Rambo 1st blood **£6**
-Screenwriter II **£15**
-Elite **£10**
-The Alpine encounter **£7**
-Flight simulater II **£20**
-Jet **£15**
-King's Quest 1 and 2 ..... each **£15**
-Leisure suit larry **£15**
-Black cauldron **£10**
-Ernies Quiz,Spotlight ..... each **£10**
-Mix and Match,Instant Zoo ..... each **£10**
-Might and Magic II **£20**

Will sell all software and GS system for **£1600**
Offers are welcome!

'Phone Andrew .....

TEXTILE COMPUTER USER GROUP

It is proposed to form a Textile Computer User Group for anyone interested in designing on the computer (Macintosh, IBM or any other make) for embroidery, knitting, lace, weaving, crochet, patchwork or quilting.

The aim of this Group will be to exchange help, information and ideas about computer graphics. This will initially be in the form of a quarterly Newsletter which will include reviews of painting and drawing software, articles on designing for any of the textile mediums, reports on computer shows, and information about the people already working in the field. We hope to arrange meetings, demonstrations and courses in the future.

For further formation of this Group, please contact **Valerie Campbell-Harding,** Long Thatch, Wyndham Down, Andover, Hampshire SP11 0LE enclosing a SAE.

WANTED

Apple /// programs, books, hardware and information

'Phone Charls .....

FOR SALE

Apple //e, Monitor, Disk Drive, AppleWorks 3 Programme. N.B. The power supply cable is missing.
The lot **£30**

'Phone Julie .....

FOR SALE

MACINTOSH PLUS 1M, with external Drive. Working Order, can deliver 100miles round Chelmsford.
Offers around **£300/350**

'Phone John Styles .....

FOR SALE

1. Western Digital 40 Megabyte external hard disk with SCSI cable, manuals and software disk as supplied **£300**

APPLE IIGS SOFTWARE
2. Appleworks GS version 1.1 (all manuals included)
3. Timeworks Publish It!
4. Silent Service
5. Typing Tutor IV
6. Rampage

Reasonable offers for the software will be accepted as I no longer have a IIgs (so I dont need any of it).

'Phone John (anytime) .....

Top 10 Mistakes New Apple Users Make

By Tom Davidson

1 **Buying and attempting to learn too many programs at once.**

Surveys show that the average personal computer owner only knows about three or four programs. Don't think you can be an expert on every program ever written. I have worked with computers for over 15 years and use three or four programs on a regular basis. Take it easy and completely master a couple of applications.

2 **Buying new programs rather than using the full potential of those you all ready have.**

If you simply operate an application according to what you see in the menus and in the manual, you are probably missing a lot of capabilities. Almost every program has hidden features or ways to utilize existing features in imaginative ways.

3 **Not analyzing what tasks you will do on your computer before you buy software.**

If you don't, you may buy an overpriced program, loaded with complicated features, to do some simple task. For example, why buy a full-blown desktop publishing program like Pagemaker or QuarkXPress when all you plan to do with it is a two-page, semi-annual newsletter.

4 **Getting demoralized by comparing yourself to more experienced users.**

Everyone out there knows SOMEONE who knows more about their computer than they do themselves. So what? If you are getting your work done on your Mac, you have nothing to be ashamed of. Mac owners, as a group, are so enthusiastic about their computers that they are more than willing to lend a hand. Not only that, but YOU will probably have enough knowledge to help other, still newer Mac owners. Get into the give-and-take. You probably know more about the computer than you give yourself credit for.

5 **Not reading the Manual.**

Plan on reading the manual three or four times. Read it once before you even try using the software. Then read it again after you've used the program two or three times. You'll be amazed at how much you missed the first time. Read the manual again whenever you have a problem with the program. The more complicated the program, the more value you'll get out of reading and re-reading the manual.

6 **Not practicing. Most frustrated computer owners don't practice enough.**

The normal problems of getting up to speed operating a computer are not beyond anyone of normal intelligence. It just takes practice. Don't operate your computer when you have an important task in hand. Practice a few minutes every day on some new technique.

7 **Going it alone.**

There is so much to know and so much new information coming out, it is hard for one person to keep current. Don't be so prideful that you don't ask for help.

8 **Not joining a "Users' Group".**

This is an offshoot of mistake #7, "Going It Alone". Apple Computer's idea of technical support is to refer you to an Apple dealer. That's support? Well, fortunately for Apple, there are hundreds of user groups out there. That's where technical support for the Mac really exists. By staying in tune with a users group, you can avoid damaging techniques, overpriced products, and unnecessary problems.

9 **Not using the "Copy and Play" learning technique.**

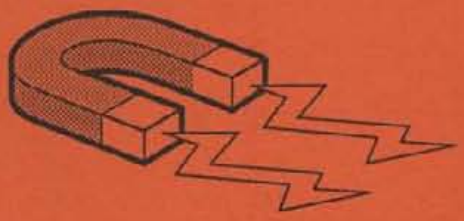
The Copy and Play technique will make you a Mac expert faster than anything else you can do. Copy and Play means that you make a fresh copy of the System disk which came with your Mac. Then, with your original in a safe place, you can do ANYTHING YOU WANT to your copy of that disk. Let's say you foul up in the worst way. What damage have you done? Absolutely none! I'm continually surprised by how many Mac owners who don't know how to format a blank disk or how to copy a file from one disk to another. Don't be afraid to experiment. It's the best way to learn.

10 **Not backing up your data disks.**

Even the most expert Mac users will occasionally clobber a data disk and face the possibility of losing weeks of work. Backing up your most important disks on a regular basis will let you use your computer without worrying about this problem.

Reprinted from Apple Bytes
AppleCore of Memphis, TN

Editor's Note: Tom Refers to Macintosh computers—but, let's face it, his advice refers to ALL computer users.



November 1991

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

December 1991

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

January 1992

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	