mini'app'les newsletter

the minnesota apple computer user's group, inc.

$2

January, 1995

Volume 18, Issue 1

JANUARY 1995

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	7:00 5 MEMBER MS MUG NEWS SERVICE	6	7
8	7:00 9 7:00 7:00 AM	10 6:30	11	7:00 12	13	14
15	7:00 16 4D	17 7:00 II	18	7:00 19	20	21
22	7:00 23 ?	7:00 24	25	7:00 26 W	27	28
29	30	31				

mini'app'les

The Minnesota Apple Computer Users' Group, Inc.
P.O. Box 796, Hopkins, MN 55343

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Dealers – Mini´app´les does not endorse specific dealers. The club promotes distribution of information which may help members identify best buys and service. The club itself does not participate in bulk purchases of media, software, hardware and publications. Members may organize such activities on behalf of other members.

Advertisers – See MultiForm mailer in the back of this issue.

Newsletter Contributions – Please send contributions directly to our Post Office, Box 796, Hopkins, MN 55343 or upload them to our BBS at 892-3317.

Deadline for material for the next newsletter is the 9th of the month. An article will be printed when space permits and, if in the opinion of the Newsletter Editor or Manager, it constitutes material suitable for publication.

Editor/Publisher: Tom Ostertag 488-9979

Newsletter Layout: John Hunkins

Mini´app´les BBS – 892-3317, 24 hrs. Settings: 8-1-0. Call in with FirstClass® Client software or any text-based terminal program.

Mini´app´les Voice Mail – 229-6952

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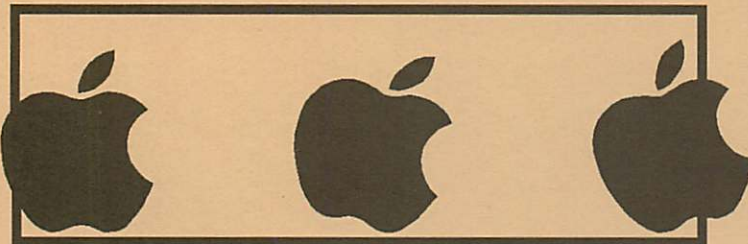
Members Helping Members

> Need Help? Have a question the manual doesn't answer? Members Helping Members is a group of volunteers who have generously agreed to help. They are just a phone call away. Please call only during appropriate times, if you are a Member, and own the software in question.

If you would like to be a "Members Helping Members" volunteer, please leave your name & phone number on our BBS, or leave a voice-mail message at 229-6952, or use the MultiForm mailer near the back of this issue.

D-days (generally 9 a.m. to 5 p.m.)
E-evenings (generally 5 p.m. to 9 p.m.)
W-weekends (generally 1 p.m. to 9 p.m.).
In any case, call at reasonable hours and ask if this is a convenient time for them. We appreciate your cooperation.

Table of Contents

THIS SPACE FOR RENT

Notice!

The Club Bulletin Board will be moving and changing phone numbers the first weekend in January 1995.

The new phone number is:

(612) 824-4394

Please change your login scripts and startup screens.

Bylaw Announcement

Changes proposed for the club bylaws should be submitted in writing (or via the BBS) to President Greg Carlson by Feb. 2

January Main Mac Meeting

12 January 1995
Submitted by Jack Ferman

The January Main meeting will be on January 12 and will be held at the Hewlett-Packard offices in Roseville. We have the main auditorium which seats about 120. HP is at 2025 West Larpenteur Ave. Park in the front and enter through the main doors. The program is "The facts and nothing but the facts about HP's new Mac products." Come see Sgt. Joe Monday unmask the JetNet.

New Mac eDOM List

Submitted by Bruce Thompson

A NOTICE TO ALL MEMBERS:

If there is anything you would like to see as an eDOM, please let Owen or me know. We try to search out the latest but can't be aware of everything that is going on. LET US KNOW!

eDOM #893 was updated to the latest version of Software FPU

Mac eDOM #893 - Fractal!
Copyright © 1993 Mini'app'les
DEC 1993
Mac eDOM #893 - tested by Sam Goshorn
Updated 12/01/94 by Bruce Thompson

Fractal! 1.0.1

A great fractal scene generator. You control perspective, lighting, haze, colors at various altitudes and the program generates a realistic mountainous scene with white peaks, timberline, and lake. These print nicely on a laser printer. Requires a floating point coprocessor but works just fine with SoftwareFPU.

SoftwareFPU 3.02
$10 shareware from John Neil.

The latest version of SoftwareFPU, the extension which emulates a coprocessor for older Macs. It does not work with the latest Quadras 605, 610 or on 68000 machines such as the Macintosh Plus, SE, Classic, Portable, and PowerBook 100.

NEW eDOMs for December, 1994
Mac eDOM #911 - Utility Mix
Copyright © 1994 Mini'app'les
DEC 1994

AliasBOSS2.03

This new version of AliasBOSS represents a substantial interface upgrade and includes some feature enhancements and additions. Several dialogs that plagued version 1.1 are now gone. All major functions are performed through the main 'Scan' window. This is described in the online documentation (select 'AliasBOSS Help' under the Help Menu).

The AliasBOSS now allows you to scan for any type of file you choose, whether it is an alias or not. You can then save aliases of files which met your criteria en masse or selectively. You can scan for aliases created by a specific program or all aliases on a particular volume and check their validity. If an alias is invalid, that is, has lost its owner file, you have the option to repair (re-associate) the alias with a similar file (or a different file altogether). Please see the online help to learn how these functions can be performed.

AliasZoo 2.0.5

AliasZoo is the quickest and easiest way to get control over the mountain of Alias files living on your Hard Drive. This version of AliasZoo adds some necessary changes for PowerTalk (System 7 Pro), and supports the latest interface craze: Drag and Drop.

For a complete description of how AliasZoo works see the 'AliasZoo Help' item under the Help menu when AliasZoo is running (the help file can be saved as a TeachText document for later reference). Please note that AliasZoo REQUIRES System 7 (otherwise there would be no Aliases to look at) - sorry System 6 users.

AutoCat™

AutoCat™ is a control panel that automatically catalogs your floppy disks when they are ejected. With AutoCat™, you only have to write the name of your disks on their label. To find a file, you can uses the "Find..." command from the Finder™ as if your file was on your hard disk.

While you eject a disk, AutoCat™ creates a folder (with the same name as your disk and with a customized AutoCat™ icon) in the cataloged disks folder. It puts in this folder aliases of all the files of the disk.

AutoCat™ maintains the hierarchy of your floppy disk : it copies folders of the disk in your cataloged disks folder and, instead of copying files, makes aliases and puts them in their folders. (When AutoCat™ is working, the mouse pointer is replaced by an AutoCat™ pointer.)

AutoCat™ uses System 7 enhancements, and especially aliases. Consequently, it works only on Macintosh running system software version 7.0 or later.

CatFinder v1.36

CatFinder is a powerful disk management tool that catalogs your disks and provides an intuitive Finder-like interface for browsing the catalogs. Floppies, hard disks, CD ROMs, any disk can be cataloged with CatFinder. Once a disk is cataloged you can quickly browse the disks contents without having the disk mounted. CatFinder also offers powerful search and report features to help you find and organize your files. CatFinder will even print diskette labels. Version 1.36 corrects a bug that caused CatFinder to crash on non-color Macs (SE's, Plus's, etc.).

Click, There it is! 1.0

Click, there it is! is something Apple should have done in the open/save dialog since the invention of the Multifinder. Have you ever wanted to open/save a document into a place where the Finder already has a window opened for it? A certain popular utilities package got it half right with one of their components except they don't let you click on the Finder window's title bar. Click, there it is! has no such restrictions. If you see the window in the Finder you can instantly make that your current folder simply by clicking on it. If want to select the desktop, simply click on the desktop. If the open/save dialog should happen to obscure the Finder window you are looking for, then simply drag it out of the way by dragging it from any point along the frame!

Menuette 2.0.1

Menuette is a control panel that alters the appearance of menu titles in the menu bar (at the top of your screen). Instead of the words that normally appear (such as File and Edit), you'll see small icons representing these concepts. Menuette comes with many built-in icons, and you can draw or import more if you wish. Menuette even lets you choose a custom font for any menu you haven't replaced with an icon.

Menuette works with any Macintosh running System version 7.0 or higher.

Snap-To 2.0.1

Snap-To is a Control Panel that snaps the cursor to the default button whenever a dialog comes up on your screen. Simple as that. Snap-To will increase your speed when using a Macintosh, especially if you use dialogs often and/or have a large screen.

System Requirements: Snap-To 2.0 will run on any Mac running System 6.0.4 or greater.

Style 1.3

Style is a styled text editor, i.e. an application that lets you create, edit and print styled text documents. In a styled text document each character can have its own font, size, style, and color. In Style you can even embed pictures within the text.

Unlike other styled text editors, Style doesn't impose any hard limit on the size of your documents (no 32K barrier!), nor on the number of windows open at the same time. The only limit is available memory. Style is a memory-based editor (i.e. it keeps all the text in RAM), but it automatically takes advantage of the available system memory when possible, so there's no need to adjust its partition size to edit large documents.

Support for Macintosh Drag and Drop. This recent Apple technology (built in System 7.5) lets you drag text and graphics around within a document, or from a document to another (even in a different applica-

tion), or between a document and the desktop

Mac eDOM #912 -Mine Games
Copyright © 1994 Mini'app'les
DEC 1994

MineField Games 1.3

MineField Games 1.3 contains two versions of MineField, MineField 1.3 and MineField Deluxe 1.0.3. MineField 1.3 is freeware, although there is a registration available. MineField Deluxe 1.0.3 is $20 shareware. Both games are based on the typical sub hunt/battleship logic, with clues as to the location of mines. The object is to locate the squares without mines before hitting a mine. There are also visual clues about the number of adjacent mines. The game gives you the option of having it start the game for you or giving you hints as you play.

Mines 1.0

This is a version of the popular Mine Sweeper game. This application has been tested on many different Macintosh platforms, and has been successful in its initial release for over a year. Mines is 32 bit clean and compatible with Color Quickdraw and System 7.0. It features three levels of play, high scores, tasteful graphics, and just a few digitized sounds.

Many tempting (and mostly distracting) features have been left out. This was for a couple of reasons: 1) the interface had to be elegant, and 2) it had to be small enough so many people would download it. Actually, the largest part of Mines is a sound that takes up 45K. I had originally planned to replace it with something smaller, but user testing revealed that it fit with the application very nicely.

Mac eDOM #913 - Fault Finders
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Conflict Catcher II 2.1.1 (Demo)

The essential Macintosh Problem Solver and Startup Software Manager. Conflict Catcher II is compatible with all Macintoshes and runs Native on the Power Macintosh!

Problem Solving:
80% of the problems with your Macintosh are software related. Conflict Catcher II is just what you need to pinpoint your miserable startup software problems such as crashes, frozen screens, printing problems and more. We test your actual existing startup software, not merely consult some outdated database of problems. The tests can be logged for later review.

Helps Determine Power Macintosh Slowdowns:
Startup Files can significantly affect the performance of the Power Macintosh. We have enhanced Conflict Catcher II's system report to help you determine if your Startup Files are slowing down your Native applications.

Startup Software Management:
Conflict Catcher II is also a comprehensive startup software manager which saves you time and memory.

DisKeeper v1.9

DisKeeper is a disk management utility written for the following Macintosh users:
1) "multi-file project managers" who are responsible for keeping track of changes made in different versions or copies of a project
2) "power users" whose monster hard disks have become cluttered with junk downloaded from who-knows-where
3) "the rest of us" whose hard disks have become cluttered with junk buried several folders deep
4) "network administrators" who are endlessly updating their users' software
5) "people" who download and run software such as this without discretion
6) "anyone" who uses a disk
DisKeeper is trained to automatically do the following tricks:
1) list all your files (you can't turn this feature off)
2) list identical files
3) list "empty" files (files of zero length, both forks)

4) list "special" files (applications, INITs, etc.) with version numbers

5) list "orphan" files (whose creator can't be found — usually plain "documents")

6) list locked files

7) list invisible files

8) list empty folders

9) list folders containing only one item

10) list invisible folders

The output is a (Microsoft Word) TEXT file called with the fields separated by tabs. The folder and file numbers are separate running totals.

ExAminer 1.3

Here is ExAminer 1.3, a System Folder maintenance utility for Mac™ OS computers. With ExAminer you can "mine" for extensions and things in the System Folder. You can change what is enabled and what is disabled, and you can create "sets" of configurations. You can think of ExAminer as a tool that either "mines" (digs) for Extensions and Apple Menu Items (and more) or lets you "exam" the System Folder. Either metaphor works!

ExAminer supports Macintosh Plus and newer computers with at least 2MB of memory and requires System 7. ExAminer is a "fat" binary and supports 680x0 Macintosh systems and is "native" on Power Macintosh™ computers. ExAminer is compatible with multiple monitors and large screen monitors.

Use Balloon Help to learn more about using ExAminer. If you have installed Apple Guide (System 7.5 or later), you can also use the ExAminer Guide to learn more about ExAminer.

Findpro 1.4

Find Pro II is a utility which unlocks some of the power of System 7's fast disk search routine combined with some AppleEvent amusements. What's with the name? Well, in a reversal of hallowed tradition, this name -starts off- with meaningless festoons already draped around it, and as upgrades appear they'll have progressively simpler names until,

who knows, maybe we'll end up with "IT" or something like that.

Since FP2 looks a lot like the Find box in Apple's Finder, it should be mostly self explanatory. Pick a search criteria, hit Find, and see what happens. It runs fast - faster than the Finder. Balloon Help is there if you want it.

Mac eDOM #914 - In The Cards
Copyright © 1994 Mini'app'les
DEC 1994

Hearts Deluxe™ 3.2

Shareware $15, Honorable Mention: The 1994 MacUser / Ziff-Davis Shareware Awards. "One of the top three entertainment shareware programs of the year."

HEARTS DELUXE is like no computer card game you've ever seen.

It's features include:

• 3-D INTERFACE.

• 256 COLORS (though it will happily support black and white)

• Multichannel SOUND

• ANIMATED EXPRESSIONS that change in context.

• SPEAKING OPPONENTS who comment on each hand.

• ABILITY to download new opponents.

• A TUTOR to help you learn and then master the game.

• THREE skill levels.

• OPTIONAL RULES to accommodate almost all Hearts variations.

• TELEPATHY window which gives you an exciting look at the artificial intelligence engine that powers HEARTS DELUXE.

• WELL WRITTEN and extensive on-line documentation.

• And most importantly, it plays a very good game of Hearts.

HEARTS REQUIRES: A 68020 or later Macintosh. (No 512, PLUS, SE or SE-30's) System 7.0 or later. At least 700K of RAM; 2000K required for 256 colors.

HEARTS SUPPORTS: 256 Colors down to black & white. (it looks real nice on grayscale powerbooks) 4 channel sound.

Note: If you have an SE-30 there is a version which *should* run on it. If

you would like that version of HEARTS then please contact us.

Pyramid Solitaire 2.4

©1994 by Glenn Seeman
$15 shareware

The object in Pyramid Solitaire is to match pairs of cards that total thirteen. Aces = 1, Jacks = 11, Queens =12, and Kings =13. The remaining cards are taken at their face values. Initially, twenty-eight cards are dealt in the shape of a pyramid. Any card that is not partially covered by another is available for a match. The remaining cards make up the "stock." Cards are turned up from the stock one at a time, unplayable ones being placed in the "wastepile." The top of the "wastepile" is always available for a match. It may be matched with any available card in the pyramid, or with the next card turned up from the "stock." The game is won if you discard all 52 cards.

Matches are made by clicking on any two cards that total thirteen. Kings may be discarded singly. Cards are turned up from the "stock" by clicking on the deck in the lower left of the game window.

NEW APPLE II eDOMS

by Les Anderson

Three new eDOMS are being added to the Apple II library. They are financial templates for Appleworks GS, Ultra macros utilities (Barrows # 13) for Appleworks 4.0 or higher, and a new version of the popular diagnostic utility, YO-YO DUCK.

eDOM IIGS-70

FINANCIAL PLANNER APPLEWORKS GS TEMPLATES

This is a group of 10 financial templates for Appleworks GS, developed by Ray M. Whittemore and Ruth K. Witkin. These were previously sold by A+/INCIDER, but are

now shareware. The shareware fee is $20.00. You may tryout the templates for free, but if you keep and use them, the Shareware fee should be remitted to Specialty Software.

Each template consists of a blank template, and a template with examples of data. There is complete documentation (6 pages) on the disk which explains each template. These can be printed for reference.

1. TAX-DEFERRED VS. TAXABLE SAVINGS (Future.Needs): This spreadsheet gives you a quick comparison of tax-deferred and taxable dollars.

2. INFLATION ESTIMATED INCOME NEEDS (Future.Needs): This spreadsheet tells you how much income you'll need in the future to maintain the style of living you enjoy today.

3. COLLEGE SAVINGS PLANNER (Future.Needs): The College Savings Planner calculates how much you need to save to meet total college costs by the time your child reaches college age.

4. IRA/TAX-DEFERRED INVESTMENT PROJECTION: (Retire.Plan). This spreadsheet calculates your future projected savings from an IRA or tax-deferred account.

5. RETIREMENT AND ESTATE PLANNER (Retire.Plan): This spreadsheet uses information you provide, including investment, Social Security, and pension amounts, to produce a two-page summary of your money's growth each year after retirement. It also determines how long it'll last with regular, inflation-adjusting withdrawals.

6. BUSINESS BUDGET (Bus.Budget): For those of you who operate a business, this template helps you budget and operate any type of business effectively. It gives you month-end and year-end income, expense, and net results, which can make tax time a breeze! Enter your income and expenses as they occur each month. It'll give you a year-to-date average, too.

7. CAPITAL PAYOUT (Cap.Payout): This template could be named Capital Distribution or Earn/Contribute/Withdrawal, because it takes regular deposits and withdrawals to give you a future result over a period of years.

8. FINANCIAL CALCULATOR (Finance.Calc): Although this spreadsheet is simple to use, its five calculators can provide a wealth of information. Figure car and house payments, interest rate, the total return on an investment, and much more.

9. EMPLOYEE TIME CLOCK (Time.Clock): This time sheet calculates your employees' working hours week-by-week and produces the total for the month. Simply enter the hours and minutes for each day.

10. PERSONAL NET WORTH (LifeNetworth): The net-worth spreadsheet lets you list all your assets and liabilities to figure your total worth.

eDOM 101

Barrows #13 Ultra Macros Utilities

This is a disk of Macro utilities for Ultra Macros 4.3, and Appleworks 4 or higher. These are public domain. THESE WILL NOT WORK WITH APPLEWORKS 3.0.

AutoSpell: Version 4.3

This macro set provides a menu of options to run Appleworks' "Dictionary" module. This is a major rewrite and upgrade of an earlier effort. The menu choices are:

1) Verify all in context, display summary

2) Verify all from a list, display summary.

The first two choices check the document using the current custom dictionary. Both the custom and the main dictionaries must be available.

3) Edit a custom dictionary

4) Create a custom dictionary:

5) Switch the custom dictionary:

6) Verify all, print summary to new file:

7) Create a document summary: This produces a screen summary of word count and unknown words, without requiring you to spellcheck the document.

File List: Version 4.3

This macro set grabs the list of files contained in the current directory. They are pasted in a word processor file and there must be room for it on the desktop.

SuperSort: Version 4.3

Many of the ways to analyze spreadsheet data require the numbers be first sorted by size. This is also true for data being prepared for use by a graphing utility. This utility allows the user to sort spreadsheet data in either ascending or descending order.

Text.Sum 4.3

This macro set can be used to sum columns of numbers in the word processor module.

TextTools: Version 4.3

This menu driven macro set provides 7 macros that produce page layout on the screen without using printer commands. The menu choices are:

1) Multi Yank: Yanks input string without adding any replacement character.

2) Set Length: Sets the total character length of lines. This macro works with blocks of text.

3) Space Indent: This sets the right margin with spaces. As with "Set length" above, it works with blocks of text.

4) Right Justify: This justifies a block of text to the right margin.

5) Center: This centers a block of text.

6) Left Justify: Reverses the effects of Center, and right justify, and space indent. It removes all soft spaces.

7) Zap Spaces Right: Removes spaces between last word in line and the return blot.

Turn.Pages 4.3

This short macro sets allows you to read large word processor files as if they were books. Each file is divided into 20 line screen "pages", where each screen of text equals a page.

Utils.WP: Version 4.3

This menu driven macro set provides 8 tools for the word processor module.

Spelling Report: Creates a spelling report for the current document, without requiring corrections.

Count Pages: Counts number of pages the current document will print.

Count Words : Counts the number of words in the current document.

File Twin: This creates a twin of any AWP desktop file. When editing a word processor file, it's nice to have two copies.

File Stamp: This macro adds the current file name, date and time to the top of any awp file.

Date File: This macro adds the current date to the current file name.

Jiggle Header: This causes ImageWriter printers to "jiggle" on every page, which improves the print quality of the first line.

Date: This inserts the "Print Date" command into a document with options:

1) Positions the date with left margin command, then resets left margin to one inch.

2) Positions the date hard to the right margin.

3) Positions the date at the current location of the cursor.

Center: This centers a single line of text using hard spaces rather than the AppleWorks "Centered" printer command.

eDOM 102

YO-YO DUCK v 2.6

Yo-Yo Duck is a Shareware ($9.95) diagnostic program for the Apple II. This is a new version of the program that has been in our eDOMs for several years. Use the older version if you have an Apple II plus. This newer version includes many new tests, some GS specific. This is a two sided 5.25 inch disk. About 50 pages of documentation is on side 2, which can be read on the screen or printed with Appleworks.

The tests include:

1) BURNIN - A program to simulate many hours of usage to "burn in" the components to see if they will fail.

2) C.D. CONNECTION - Checks all drive devices including PRO-DOS formated hard drive.

3) MONITOR TEST - Hi-Res, Lo-Res, and Double Hi-Res tests for the monitor. Tests both monochrome and color.

4) DRIVE CLEANER - A program to operate the drive for 30 seconds for using a head cleaner.

5) DISK TEST - Tests a 5.25 inch to see if disk is good.

6) ENSONIQ SOUNDS - A GS specific test for the sound chip.

7) PRINTER TEST - Includes several printer tests, Imagewriter II, Imagewriter LQ, as well as some Epsom and Brother printers.

8) JOY STICK and PADDLE TEST

9) KEY BOARD TEST - Including newer key boards with 10 number keypads

10) MEMORY TEST - Including extra memory boards for IIe and IIGS.

11) SPEAKER TEST

12) 80 COLUMN TEST

The author, Michael A. Coffey, is an independent consultant, and Apple certified technician. He has included many service, maintenance and trouble shooting tips in the documentation.

GADGET

Reviewed by Nick Ludwig

Fifteen minutes into Gadget, I began to realize that this CD-ROM wasn't like any other game I've ever experienced...in fact, it really isn't a game, so you'd be better off from the start thinking of it as an interactive film, which, in fact, is what it calls itself. I really don't know how to even describe what I actually did for several hours, I don't think I "played" Gadget, and I certainly did more than "watch'" it, but it is hard to explain the precise interaction; so, I'll just babble about it, and hopefully, you'll get the idea.

Basically, Gadget is a mystery; and you interact with the movie as the puzzle unfolds. The setting is a cross between The Fountainhead and The Day the Earth Stood Still; you know...Gary Cooper meets Klaatu. Lots of odd machines, er, gadgets, cool '30's style trains, and encounters with various mentally-disturbed characters with the occasional alien thrown in for good measure. While you get to click on your mouse quite frequently, I soon realized that this film definitely nudged me down the correct path much stronger than, say, Myst does. (For those of you who lost your mind

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Apple II In Children's Hospitals

by Phil Shapiro
From December 1994 GEnie Lamp Apple II
Submitted by Tom Gates

It makes a lot of sense to provide hospitalized kids with microcomputers. Kids in hospital have loads of free time on their hands. They desperately need activities to occupy their minds as the hours tick by. What better way of engaging their minds than by giving them access to educational and recreational software?

A few months ago, I sent out letters to about 70 children's hospitals around the country to find out how they might be using computers for educational and recreational purposes. Among the several replies that came back, two hospitals described computer projects glistening with excitement. The Children's Hospital of Oakland, California, has a lab of six computers that get intensive use. And Boston Children's Hospital has set up a highly unique computer project.

What's Happening at the Children's Hospital of Oakland

The computer lab at the Children's Hospital of Oakland has two Apple IIc's, two Mac Classics, a 386 IBM-compatible, and a Socrates video game system. Children at the hospital use these computers each and every day for instructional and recreational purposes. Since the computers are part of the "school program" at the hospital, educational software is emphasized more strongly than recreational software.

As you might expect some of the most popular programs are The Print Shop and The Children's Writing and Publishing Center. School program coordinator Patricia (Patty) Coffin explains that getting kids involved with creative expression helps them keep their minds focused away from the other routines of hospital life. Computers are also essential writing tools for the many children who's arms are connected to intravenous (IV) boards. These children are unable to hold a pen in their hand, but can manage to peck out words on a keyboard.

Older children in the hospital are excited about writing for the hospital's bi-monthly Teen Newsletter. They use AppleWorks and other word processors to compose the text. Originally this newsletter was planned as a quarterly publication. But the response to the first few issues was so positive that the publishing schedule was accelerated to a bi-monthly.

An interesting facet of this hospital's computer use is that the computers reside on carts and are frequently moved around to the children's bedsides. The computers are even shared with children in the intensive care unit. Children who are too sick to even speak often perk up when a computer is wheeled to their beside, commented Patty Coffin.

"People consider the Apple IIc's real old, but they serve our purposes real well," she went on to say. "They don't have a lot of fancy features, but they run so many different types of educational programs. I particularly like the volume control knob on the Apple IIc's, which allows me to turn down the volume when the programs get too noisy. Have you ever been in a small room with excited children and noisy computers each playing a different tune?"

The most popular software programs used on the hospital's Apple II's include Reader Rabbit, Writer Rabbit, Print Shop, Children's Writing and Publishing Center, and the Carmen Sandiego series. The most popular programs on the Mac's are Number Maze, Outnumbered, and Math Blaster. And the favorites on the IBM compatible include Express Publisher, Mavis Beacon Teaches Typing, and the Isaac Asimov science series.

Most of the computers used in the hospital have been donated or have been acquired from the Apples for the Students shopping receipts project, sponsored by Safeway. Next year Coffin plans to obtain a color Mac with her shopping market receipts. She says she'd love to get a CD-ROM disc drive sometime in the near future, too.

One other item high on Coffin's wish list is a phone line for telecommunicating with the outside world. Many of the older children visiting the hospital have asked if they could telecommunicate with their peers back in school.

Apparently the primary financial hurdle to making this happen is not the price of modems or communications software, but rather the price of installing and maintaining an extra phone line. Coffin has been lobbying for this phone line for quite a while, and is hoping that a combination of individual and corporate benefactors can help make it happen.

Since the Children's Hospital of Oakland is located so near to Apple Computer's corporate headquarters in Cupertino, California, I was naturally curious to find out whether Apple Computer itself has lent any formal support to this project. Coffin relates that Apple has indeed given encouragement to the project, but has offered little in the way of hardware or other contributions. "Apple Computer must get thousands of requests for computer donations each year," Coffin declared, "so it's understandable that they cannot support everyone's pet project. However, considering the immense positive effect computers can bring to the children here in our hospital, we just hope that in the future Apple might consider our requests with that in mind."

What's Happening at Boston Children's Hospital

The "KidBits" Project - Every successful project starts out with a single individual deciding to get involved and make a difference. Back in 1986, George Boggs, an employee at GTE Laboratories, decided the time was ripe to help bring computers to the children at Boston Children's

Hospital. His action was prompted by hearing the plight of a friend's child, who was spending several weeks isolated in the hospital's bone-marrow transplant unit.

Boggs, who has since moved on to work for another company, is a specialist in "human factors" engineering. His special expertise is in understanding how human beings can most efficiently and naturally interact with computer technology. His professional training in this field helped lend insight into the immense usefulness of microcomputers in a pediatric hospital setting.

Using GTE's internal electronic mail network, Boggs was able to solicit support for his ideas from 50 to 60 other GTE employees. The group quickly formed a steering committee to approach the hospital with their proposal.

The original idea was that GTE employees could donate their time and expertise to help train both the hospital's "child life specialists" and the children themselves. During the planning stages of the project children in the hospital were consulted as to how they felt the project should be run. Later on, Boggs recalled that moment: "It was very moving. We sat there listening to these children, who were dealing with a fatal illness, tell us how they wanted computers to help them with their future. I was overwhelmed with their courage."

GTE Laboratories helped the hospital acquire some Apple IIe's and some Mac SE's. The volunteer employees spent time during evenings and weekends showing how the computers could be used. GTE Laboratories has even allowed some of these employees to take off daytime hours to volunteer at the hospital.

To help build enthusiasm for the project, several "computer fairs" were organized. The fairs involved setting up a collection of computer stations with different activities set up at each station. Children were given "computer whiz certificates" for each station they visited. So well-received were these computer fairs that the hospital has planned them as a regularly quarterly event.

When word of the KidBits project got out, other people stepped forward to offer support. The Boston Computer Society, the local user group in the Boston metro area, generously donated copies of their entire public domain and shareware collection. These software programs can be copied and used on the current computers at the hospital, as well as on future computers the hospital may acquire.

A year or two ago the GTE Laboratories employees finished work on a network of Macintoshes in the bone-marrow transplant unit. Making use of their technical expertise, the employees set up a PhoneNet network. PhoneNet is a network which uses standard telephone wires to connect computers. While considered "slow" for use in a business setting, PhoneNet networks are often the network of choice in schools, libraries, and non-profit organizations.

With their PhoneNet network in place, the children in the bone-marrow unit can now send electronic mail back and forth between rooms. They're also able to play interactive games especially designed for use on networks.

One of the most active GTE volunteers in KidBits project, David Fay, says that he'd really like to see a modem and phone line placed on the networked computers. Connecting the kids to the outside world would introduce yet another dimension to the KidBits project.

Since George Boggs's departure from GTE, David Fay has stepped in to help preserve the momentum of the KidBits project. Myra Fox, the director of Child Life Services at the hospital, says that Fay and the other GTE volunteers have shown extraordinary commitment to the KidBits project. "Working on their own time, they have poured their hearts and souls into KidBits. They're a fabulous group of people."

Fox goes on to explain that the "gift of time" is one of the most meaningful gifts the children (and adolescents) in the hospital receive. "Knowing that the GTE employees will be visiting regularly to help with the KidBits project can go far to buoy a patient's spirits."

Myra Fox sums it all up well when she said: "Computers [in hospitals] can help encourage socialization, provide patient entertainment, counteract isolation, promote choices, and offer academic education." All that, and more.

The author takes a keen interest in projects that bring computer technology to those who do not yet have access to it. He can be reached at: (202) 686-5465 (home/office), or via electronic mail on GEnie at: p.shapiro1; on America Online at: pshapiro

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Note: The above people are happy to talk on the phone with anyone wishing to donate computer hardware, software, or financial support to these projects. All three of them have rather busy schedules and have asked that people not call just to wish them well with their projects.

Also, it's always thoughtful to include a stamped, self-addressed envelope if you send written correspondence. How can readers of this article help support these projects? Blank floppy disks and printer ribbons are always much appreciated. Both projects use ImageWriter printers.

AppleWorks Meeting Minutes

November 1994
by Thomas G. Ostertag

The lights were on at Murray Jr. High and I could see Erik Knopp and Les Anderson setting up the Club Apple IIGS for the evening's presentation. We started with the usual questions and answers which became rather involved with SuperFonts and the installation process... as well as a discussion of macro packages in Ultramacros 4.3. A question also arose about setting the date without a clock card installed in the Apple. Several solu-

tions were mentioned including a bit of BASIC programming. A question about cross platform use was also asked and the greatest answer was Bruce Thompson's where he takes his Apple files and transfers them to his UNIX workstation using an DOS emulator... now that's cross!

The Swap meet was mentioned and possible future topics for AppleWorks meetings were discussed.

The presentation was on Holiday Letters and there seemed to be a general pattern of using SuperFonts and

Graphics to do them. Bruce Thompson's 1992 letter was used as an example of what can be done with TimeOut Paint and PrintShop graphics to produce headers.

The use of alternate programs to do the layout was also discussed such as Publish It4!, Publisher, Medley, etc.

The meeting adjourned to Perkins where the discussion on SuperFonts was continued and free pieces of pie were consumed.

All for now...

Tom

Main Mac Meeting Minutes

8 December 1994
by Tom Ostertag

The snow was still coming down and the curbs were hard to find around the Washburn Library when I arrived. I talked to Tom Gates for a few minutes and then he passed out the Macmillan Catalogs. Mike Carlson started the meeting by passing out Demo disks from his dusty disk closet... stuff like MacWrite, Mac Paint and Jazz.

He quickly moved to Announcements, Questions and Answers and Introductions in all of 50 seconds. There were several questions one on what new Mac would be recommended, one on what new printer would be recommended and another question on using an ImageWriter with Postscript fonts.

Brian Bantz passed out some of the offers and opportunities for software reviews to the group. I received

the Mathematical program HiQ for the Power Mac (which I don't have and probably won't until next year at work) and will have to write a review... along with several other programs that I have the software for.

Mike then introduced Richard Borstein of Frame Technology Corp. who then did a very good demonstration of FrameMaker 4 which is a Desktop Publishing program specifically directed towards people that write large documents such as technical manuals and specifications. He showed some of the features such as having one document and being able to selectively print parts of the document for as an example retail sales and distributors. He also did a very impressive bit with putting the paragraph heading in the left margin with just a keystroke.

Very impressive... FrameMaker 4

is a cross platform product that works under Mac, Windows and UNIX environments. Documents pass back and forth without translation.

Mike broke in on Richard's demonstration to say that we had to be out of the Library by 9:00 and it was 10 minutes to... so Richard quit and passed out his business cards.

The Pie SIG was at Perkins, but I was unable to attend as my daughter was at home using the Mac and having some concerns about having it crash... I couldn't eat any pie anyway, so there.

Remember the January meeting will be at Hewlett Packard on Larpenteur Avenue, north of the St. Paul Campus of the U of M. The topic will be laser printers. (and maybe some stuff on HP Vectra computers)

and your relationships with your spouse/employer/fellow humans while solving Myst, you may find Gadget a safer (saner?) alternative.) In addition, once you have discovered all the pertinent info. at any given stop, you are immediately whisked away to the next section, courtesy of a very nicely done Quicktime animation. The designers did a superb job of incorporating B &

W video with color 3-D rendered images. The B & W really adds to the '30's movie feel. This CD-ROM needs Quicktime 1.6.1 by the way, which allows relatively large screen movies—approx. 1/2 of my 14" monitor.

Along with everything else about this film, the music is what you might expect; machine-like and mysterious, yet at times it is just plain bizarre. In particular, one sequence

sounds vaguely Polynesian, kinda' like a Hawaiian luau where the roast pig turned out bad. Very well done integration of video/animations/music is the rule; this was definitely designed from ground up to be a movie-like experience.

What could be better? Well, this film pushes the limitations of current CD-ROM technology, and I

Apple II History
PART 15 — DOS 3.3, PRODOS & BEYOND [v1.2 :: 30 Sep 92]

Compiled and written by Steven
Weyhrich (C) Copyright 1992, Zonker
Software

DOS 3.3

In August of 1980, Apple released an upgrade for DOS, to version 3.3. This upgrade was an important one. It consisted of not only a new System Master disk, but a hardware upgrade chip as well. The original disk drive had been designed with the ability to read and write 35 tracks of 13 sectors each on a 5.25 inch disk. At 256 bytes possible per sector, this made the disk capable of holding 113.75K of information. Since it was designed to have DOS present on each disk in the first three tracks, and the catalog took up another entire track, there was actually only 100.75K available for data storage. Steve Wozniak, the author of the original DOS disk driver (RWTS), had found a way to increase the storage capacity of Apple floppy disks. Changing slightly the method used for encoding data on the disk made it possible to have 16 sectors per track, instead of the original 13 sectors per track in DOS 3.1 and 3.2. This resulted in a disk that could now hold a maximum of 140K of data (124K excluding DOS and the catalog track), a 23 percent increase over the 13 sector disks. The remarkable thing about this upgrade was that the disk drives themselves did not need to be changed to make this possible. Only the ROM program on the Disk II controller card needed to be changed to make the move to DOS 3.3. Those users who bought this upgrade to DOS 3.3 had to change the ROM chip on the disk controller (or have their dealer do it for them). An updated and greatly expanded version of the DOS manual was also included in the DOS 3.3

upgrade.<1>

DOS 3.3 - FEATURES

The DOS 3.3 System Master disk included many programs that had previously been present on the DOS 3.2 Master, plus a few others. The "COPY" program (used to copy entire disks) was translated to Applesoft as "COPYA" for those II Plus users who didn't have access to Integer BASIC. The newer COPY programs also worked properly on single drive systems (previously, you had to have two disk drives in order to use this program to copy a disk). To allow users to startup their older 13 sector DOS 3.2 disks, a binary program called "BOOT13" was included. (Also, a separate disk called "BASICS" was included that could be used in the same way as a pre-boot for 13 sector disks).<1>

Because of the changes in the ROM controller, it was not easy to read disks formatted under DOS 3.2 directly from DOS 3.3. It could have been incorporated into DOS 3.3, but would have called for a major effort in rewriting the track and sector access routines, as well as making DOS larger than the earlier versions. Instead, Apple supplied on the System Master disk a conversion program called "MUFFIN" to allow files to be moved from 13 sector to 16 sector disks. Enterprising hackers in the Apple II world made modifications to MUFFIN and created DE-MUFFIN, a DOS 3.2 utility to convert the files back to the 13 sector format.<1> Rich Williams at Apple wrote the MUFFIN program (which was supposed to stand for Move Utility For Files In NewDOS).

The System Master disk also contained a new utility called "FID" (which started at version "M"; just like DOS "3", nobody knows why

the first public release didn't start with "A"). FID, written entirely in assembly language, allowed easier copying of files, particularly Text and Binary files that couldn't simply be LOADed and SAVEd from one disk to another, as could Applesoft and Integer programs. The name "FID" was odd, however. The Apple manuals said it stood for FIle Developer, but Rich Williams (who also wrote this utility) said that the original name of the program was FISHEAD (which had some sort of mnemonic meaning that he could no longer recall). Apple Marketing said he couldn't name a program FISHEAD, so he changed it to FID, which they said was okay. It really stood for Fishead In Disguise (or Fishead In Drag by some within Apple).<2>,<3>,<4>

Some Apple II users didn't like to have to use utility programs to manage their collections of disks in both the 13 and 16 sector formats. One method that was used to overcome this inconvenience was to piggyback the old and the new disk controller ROMs and use a switch to toggle between systems. The most elegant solution I've found was a ROM chip that plugged into a special card (the ROMPlus made by Mountain Hardware, or the ROMBoard made by Andromeda). A call to a memory location would switch between DOS 3.2 and 3.3, making file conversions quite easy. Soft Ctrl Systems, the company that sold this Dual DOS ROM also sold ROMs that gave instant access to an Applesoft renumber and merge program, an Applesoft editor, and a specialized disk command menu and disk map.<2>

Another change found on the DOS 3.3 System Master was in the method used to load the alternate

BASIC. Since by this time the Language Card was available (which, as you should recall, was simply 16K more RAM to add in parallel to the Apple II ROM), there were two groups of users to service on bootup. For Apple II Plus owners, there was a file named "INTBASIC", which would load Integer BASIC onto the Language Card. For the older Apple II (non-Plus) users, the file "FPBASIC" would be loaded onto the Language Card when the DOS 3.3 disk was booted, making Applesoft available. The last version of the DOS 3.3 Master disk, released with the Apple IIe, used a new utility to load these files which was significantly faster than the standard DOS BLOAD command.

DOS 3.3 - MISCELLANEOUS

A rumor expressed in a letter to Call-A.P.P.L.E. magazine in January 1982 suggested that up until Christmas of 1980 there never had been an assembly language source listing of DOS. The writer of the letter stated that changes made to DOS up until that time were done by patching it with the mini-assembler in the Monitor. However, during a phone interview in September 1991 with John Arkley at Apple, he said there ALWAYS was a source code listing for DOS, as far back as DOS 3. He believes the writer of the letter may have been referring to the problem with the lost Autostart ROM source code (see Part 6 of this History). Arkley stated that the earliest versions of DOS were written using a cross-assembler on a Horizon microcomputer.<5>,<6> He also said that the only part of DOS 3.3 that was assembled from scratch was the new RWTS. The rest was merely attached to RWTS and "conditionally" assembled (a programmer's term; sorry). They made a few patches to fix bugs in the File Manager and Main DOS routines, but did so only in very specific places, to avoid moving undocumented entry points that programmers had been using up to that point.<3>,<4>,<7>,<8>

DOS 3.3 - LIMITATIONS

The major limit of DOS 3.3 was that it, like its predecessors, was designed specifically to support the Disk II drive. Hard disks, RAM disks, and 3.5 disks (like those used in the Macintosh when it was released in 1984) could not be directly used with DOS 3.3.<9>

PASCAL SYSTEM

The Pascal system was released in 1979, prior to the DOS 3.3 upgrade. It used the same hardware upgrade to the Disk II controller as was included with DOS 3.3. The method used by the Pascal disk system to store files was quite different from that used by DOS, however. Instead of the 256-byte "sectors" used with DOS 3.2 (and by 3.3), the Pascal system used 512-byte "blocks", using two sectors per block. Pascal used the larger 140K disks from the beginning, and its method of file naming was somewhat more limited. Instead of names that could be as long as 30 characters and could contain any ASCII character (as was the case with DOS 3.2 and 3.3), Pascal files could be only 15 characters long, and could contain only letters, numbers, or a period. It was designed with a little more flexibility in the types of files that could be created, however. Instead of DOS 3.2's limit of eight different file types ("A", "I", "B", "T", and the other four little used ones), Pascal was designed to allow many more, and used a two-byte code to designate file types. A Pascal file entry also had space for a date when the file was created or updated. DOS 3.2 or 3.3 could not easily do this, even if a clock card was installed.<7>,<10>

Pascal disks differed also in being able to have a unique name to designate each disk. DOS 3.2 and 3.3 could be formatted to use up to 254 different volume "numbers", but this feature was seldom used and did not allow disks to be very unique. The Pascal disk name could be up to 7 characters in length, and had the same limits of character choice as did file names. Another feature of the

Pascal disks that differed from the older DOS disks was how space was allocated on a disk for a particular file. Under DOS 3.2 and 3.3, space was used on the disk to identify which sectors were used and which were free. When a new file was created or an existing file was enlarged, this track/sector list was consulted by DOS to find where free space could be found, and the list was updated when a new sector was used. The advantage was that all space on the disk could be used as it was needed, but the disadvantage was that a file could be "fragmented", with the sectors that made up that file scattered throughout the disk.

Pascal disks did not have any map of free blocks. Instead, a Pascal file used only consecutive blocks on a disk, and a new file would be started following the end of the last file on the disk. The advantage of this system was faster access to disk files, since they were all on one continuous piece of the disk. The disadvantage was that if a file was deleted, the newly freed space could not be used unless Pascal's "Krunch" utility was used to move all files forward over the unused space.

The Pascal system also included some other built-in disk utilities, an assembler, and a compiler. As part of this system one could also purchase from Apple a compiler for FORTRAN programs and a few other computer languages.<10>

CP/M

With the release of the Microsoft CP/M Softcard, a disk system was needed to handle this foreign programming environment. (Recall from Part 12 of the History that the CP/M system gave Apple II users a Z-80-based computer inside their 6502 computer and, therefore, access to programs and utilities that were previously unavailable). CP/M disks were designed to use four 256-byte sectors as one "block" (twice as large as the Pascal "block"). Like DOS 3.2 and 3.3, the first three tracks on the disk were used for the CP/M operating system which was loaded into

memory when booting the disk. Like Pascal, the CP/M directory was found at the start of the disk, instead of in the middle as DOS was designed.

Apple II CP/M disks followed the standard CP/M file naming system. A file name consisted of 8 characters, followed by a period, and then a three character "extension". One interesting feature of CP/M files was that if a file was longer than 16 CP/M blocks (64 DOS sectors), a new directory entry would be made with the same file name. This entry had an extra byte set to show that this was a continuation of a previous file, instead of a new, separate file.<10>

SOS/PRODOS

The operating system designed for the Apple III computer was called "SOS". This title arose from the Apple III's code name, "Sara", which itself came from the name of engineer Disk Huston's daughter. Originally, then, SOS stood for "Sara's Operating System". The manuals released with the computer, however, used the more professional-sounding name "Sophisticated Operating System." SOS was the first operating system for a microcomputer to use the concept of "device drivers", which were programs taken from the startup disk and made part of the operating system. These drivers told the computer how to communicate with the various devices that were attached to it, from a variety of disk drives to the keyboard and monitor. This gave flexibility to the Apple III to use new technology as it became available.<9>

When Apple designed the Apple III, they were under constraints of maintaining some compatibility with the Apple II disk format. They used the same disk controller and the same capacity disks as the Pascal/DOS 3.3 systems: 35 tracks, of 16 sectors each. However, the engineers were free to make any changes they wanted in the way in which files were stored on the disk. They came up with something that was a hybrid between the DOS 3.3 and

Pascal methods of file storage. From Pascal they took the concept of using 512-byte blocks as the basic unit of storage, a two-block "system loader" program at the start of the disk (this loader would locate a larger system file elsewhere on the disk to actually start the operating system), and a four-block main catalog (which they called a "directory"). From DOS 3.3 they used the concept of disk maps and block lists for each file, allowing parts of files to be stored anywhere on the disk (and eliminating the need for the Pascal "Krunch" function). The SOS filing system also continued the use of a byte to identify different filetypes, space for a date (and time) of file storage, and the 15 character file names using only letters, numbers, and a period. Because the Apple III was intended to be a business machine and had to be able to access larger disk devices than were allowed for the Apple II, they also added the ability to create and use different levels of file directories. A single four-block directory had space only for 51 files; even if it was enlarged to allow more files, on a large disk it would soon be difficult to find a file in a list that got longer than a couple of hundred names.

The SOS disk file system also would allow files to be as large as 16 MB, and a single disk volume could be up to 32 MB in size. In 1981, when the 5 MB Profile hard disk was released by Apple for the III, this limit of 32 MB was considered to be more than adequate.

In 1984, when ProDOS was released for the Apple II as a "Professional Disk Operating System", the same file structure was used. In fact, the disks were so designed that a disk created by the Apple II ProDOS formatter installed an Apple III SOS loader segment in the second block on the disk. This made it possible to boot the same disk on either an Apple II or an Apple III, if the necessary system files unique to each computer were present on the disk. Also, files could be shared easily between the two computers. Even as late as 1992, when

the Apple III has been out of production for eight years, disk formatted by Apple II System Utilities still have SOS boot information located on block 1. What may be even more amazing is that this disk system for the Apple III, released in 1980 (and probably designed in 1978 or 1979), is still flexible enough to be useful for Apple II's in 1992.<10>

PRODOS

The original DOS for the Apple II was designed primarily to support BASIC. If a programmer wanted to make use of the disk system for an assembly language program, he had to make use of undocumented, low level calls to the DOS File Manager, or possibly to some of the Main DOS Routines. This method was clumsy, and often made inefficient use of memory, as DOS expected that any calls made to it were done on behalf of BASIC. Moreover, this tied the hands of programmers at Apple in their ability to enhance DOS, since any changes they might make would most likely change internal addresses, and cause older software to malfunction if used with the revised DOS.

Another problem with DOS was speed. Since each byte read from the disk was copied between memory buffers THREE times, much of the disk access time was spent in moving things around in memory. Consequently, as hackers took DOS apart and found better ways to do things, several variations of DOS speed-up programs appeared by 1983, including Diversi-DOS, ProntoDOS, and David-DOS. Each of these programs were mutually incompatible in terms of the low-level calls they made, and had slightly different ways of speeding up DOS.

DOS was also limited since it was device dependent. It was designed to work quite well with the Disk II drive, but to make use of a hard disk or RAM disk (a pseudo-disk "drive" that was actually RAM memory, had no moving parts, and was therefore quite fast), DOS had to be patched.

This usually made it impossible to use different brands of hard disks together, or to use a hard disk and a RAM disk simultaneously.

Other problems with DOS included poor support for interrupt signals generated by various hardware devices, obstacles in designating memory areas as protected from being overwritten by DOS, and the difficulty in customizing DOS for special functions.

With the introduction of ProDOS, all of these weaknesses were addressed. ProDOS would run up to eight times faster than DOS in accessing 5.25 disks. It supported a standardized protocol for hardware-based devices, allowing reads, writes, status calls, and formatting (erasing). This allowed a large variety of disk devices to be used on an Apple II. Support was also included for a hardware clock, allowing date- and time-stamping of files. Hardware interrupts were supported, necessary system calls were placed in a standard location in memory (called a "global page"), and memory could be protected from being overwritten by the actions of ProDOS.

Because the functionality of this disk operating system was enhanced so much, its size grew as well. To specifically support Applesoft BASIC, a separate "SYSTEM" program was included that worked nearly the same as the older DOS 3.3 did. In addition, it included some further enhancements that had been requested for years by Applesoft programmers. The only disadvantage of the new ProDOS was that it did NOT support Apple's original Integer BASIC, since the ProDOS program loaded itself into high memory where Integer BASIC was loaded in an Apple II Plus. Since very little development of software had been done in Integer BASIC since the introduction of Applesoft, this was felt to be a reasonable trade-off. And if Integer BASIC was needed, it could still be run under DOS 3.3. At the time of this writing, there has been no release of a ProDOS system program that would support Integer

BASIC (with the exception of an Integer BASIC compiler distributed by ByteWorks in late 1991 for instructional purposes).<1>

PRODOS 16

When Apple released the IIGS, with its considerably greater power compared to the older 8-bit Apple II's, changes were needed in the operating system to better manage that power. This had to be done with another goal, that of maintaining compatibility with older Apple II software. The new operating system was called ProDOS 16, and the operating system intended for use with 8-bit software (both on the IIGS and on the older Apple II's) was renamed ProDOS 8. But ProDOS 16 version 1.0 was somewhat of a temporary fix to the problem of disk access for 16-bit software. It was not written in 16-bit code, and it simply translated the new system calls defined for ProDOS 16 into ProDOS 8 calls to actually carry out disk activities. As such, it was slow and cumbersome.<9>

GS/OS

With the experience of SOS, ProDOS, and the Macintosh Operating System to draw from, Apple engineers and programmers devised a yet more powerful and flexible disk operating system for the Apple IIGS. Written completely in 16-bit code, GS/OS was released in September 1988. It was more than a DISK operating system, but a truly comprehensive operating system that also handled keyboard input, monitor output (text and graphics), mouse input, printers, modems, and more. In these respects it was just as powerful as the older SOS written for the Apple III back in 1980. But they also added a new concept.

Although GS/OS would allow an Apple IIGS to communicate with disk devices that had not been used on an Apple II before, there would still be the limits of having to know exactly HOW files were stored on that disk. ProDOS could only handle files stored in the specifically defined ProDOS/SOS format; DOS 3.3 could

only handle files stored in THAT format; and so on. To make this new system as broad-based as possible, Apple programmers built into it the concept of a File System Translator (FST). With the appropriate FST teamed up with a suitable disk driver, GS/OS could theoretically be able to read ANY disk created by ANY computer. The FST simply translated the requests made by GS/OS into the language "spoken" by the disk it was trying to read. This task had never before been attempted by a computer company in designing a disk operating system. Apple, recognizing that the computers used in the real world would never be 100 percent Apple, made it possible to simplify transfer of data between different computers. The concept was first implemented in a limited fashion on the Macintosh, when the Apple File Exchange program was modified to be able to use MS-DOS disks. The Mac system is now also able to add its equivalent of an FST for the ProDOS and MS-DOS disk systems, but not as easily as has been implemented in GS/OS.

GS/OS was also made more flexible by removing the older Apple II method of identifying a disk by the slot where its disk controller was attached, and removing the limitation of only two disk devices per slot. The limits of maximum file and disk size built into ProDOS 8 were expanded. A GS/OS file or disk volume can be as large as 4 GB (gigabytes), or 4096 MB to be more specific. However, when GS/OS is dealing with ProDOS disk volumes, it still has to stay within the limits of ProDOS (files no bigger than 16 MB, and disk volumes no bigger than 32 MB).<9>

System Software 5.0 for the IIGS was introduced in May 1989. It added speed, speed, and more speed to many features of the IIGS, accomplishing this through more efficient software coding. There were patches to the IIGS ROM Toolbox to improve throughput in many of the built-in capabilities of the machine. A new feature called "Expressload" was

added, making it possible for certain program files to load from disk up to eight times faster. GS/OS was modified to be capable of staying in memory during a switch to ProDOS 8 applications, making the return to GS/OS significantly faster. The text-based control panel was supplemented by a new graphics-based one that was accessible in the same way as other 16-bit desk accessories. Access to 3.5 disks was accelerated by implementing a feature called "scatter read", which could take an entire track (rather than just a single block) of data from the disk at a time. An FST for AppleShare was added, allowing a IIGS attached to an AppleTalk network to access the file server as a disk. It also included an FST to allow access to CD-ROM drives, new utilities for disk partitioning, and it had an intelligent "Installer" program to make it easier to install system or application files.<11>,<12>

Because of further improvements in features, System Software 5.0.2 (an upgrade to 5.0) required a minimum of 512K memory, and worked best with 768K or more. Versions 5.0.3 and 5.0.4 needed a full megabyte of memory.<9> An improved "standard file dialog" was included in the system tools for 5.0.3, (making it possible to choose files more easily for loading into an application), as were improved drivers for the ImageWriter II and ImageWriter LQ printers. System 5.0.4 was released six weeks after 5.0.3 to fix some remaining important bugs discovered too late.<12>

GS/OS SYSTEM 6

Before System 5.0 was released, plans were already in store for further improvements to the system software. Apple IIGS "power" users were calling for the ability to use Macintosh HFS (Hierarchical Filing System) disks, as well as the older Apple II DOS 3.3 and Pascal formats. Although there were some simple third-party translation programs available that allowed transfer of files from Mac disks to ProDOS disks,

they did not provide the same ease of use as did the direct access possible with ProDOS and CD-ROM files. Although it sounded to these users like a relatively straightforward proposition, the increased complexity of the Mac HFS directory structure complicated things. Not only did the Mac disks contain more information about each file than did ProDOS disks, but the names of files on Mac disks (as on DOS 3.3 disks) could contain characters that were not "legal" for ProDOS file names. To help with this problem, the new FSTs were designed to watch for potentially illegal filenames, and to make suggestions for alternate names that WERE legal.

Apple software engineers had always made it clear to programmers clamoring for additional FSTs that such changes were more than just dropping the new FST into the System/FST folder on a boot disk. Modifications were necessary throughout GS/OS to accommodate these new features, and the time needed to make these changes was becoming longer than originally planned. To allow some improvements to be made available without waiting for them all, the system software engineers divided tasks during 1990, putting the features that could be programmed most quickly onto a fast track that would allow them to be released as Version 5.0.3 later that year.

The other half of the team worked on the rest of the planned enhancements for what would become System 6.0. When 5.0.4 was completed, the entire team again came together to continue work on this upgrade. After fourteen months of hard work, they were finally ready to release GS/OS System 6.0 in March 1992. In addition to FSTs for the Mac HFS disks, DOS 3.3, and Apple Pascal, device drivers were created to allow support of the Apple Scanner, the slot-based Apple II Memory Expansion card (which on the IIGS works primarily as a RAM disk), and the Apple Tape Drive. The

SCSI drivers were enhanced, and the Apple 5.25 disk driver was made faster. A new printer driver was included, to support the Apple StyleWriter inkjet printer, and more large fonts were included to use with that and other printers. The Finder was re-designed almost from scratch by Andy Nicholas, the author of ShrinkIt and GS-ShrinkIt. Archiver (a disk backup utility) and Teach (a GS/OS-based text-editing program) were also included. Finally, ProDOS 8 v2.0.1 was released, allowing 8-bit programs access to as many as fourteen disk devices on a single slot. This made large, partitioned hard disks usable even to Apple IIc and enhanced IIe users (this version of ProDOS 8 required the opcodes of the 65c02 chip, although ProDOS 8 v1.9 was still available to run on the Apple II Plus or unenhanced IIe).
<12>

At the 1992 KansasFest, Apple engineers announced that v6.0.1 of GS/OS would be out later in 1992 or early in 1993. Along with specific support of the Apple II Ethernet card, this version is expected to include bug fixes found in 6.0, and an MS-DOS FST (at least read-only, with write capability to come later).

NEXT INSTALLMENT: Languages

NOTES:
<1> Worth, Don, and Lechner, Pieter. Quality Software, BENEATH APPLE DOS, Reseda, CA, 1984, pp. 2.1-2.9.
<2> ———. (ads), CALL-A.P.P.L.E. IN DEPTH #1, 1981, p. 106.
<3> Auricchio, Rick. (personal telephone call), Sep 4, 1991.
<4> Wozniak, Stephen. (personal telephone call), Sep 5, 1991.
<5> Roberts, Henry. "A.P.P.L.E. Doctor", CALL-A.P.P.L.E., Jan 1982, p. 63.
<6> Arkley, John. (personal telephone call), Sep 9, 1991.
<7> Little, Gary. Addison-Wesley Publishing Company, Inc, EXPLORING APPLE GS/OS AND PRODOS 8, Reading, MA, 1988, pp. 2-4.
<8> Little, Gary. Brady Communications Co, INSIDE THE APPLE //C, Bowie, MD, 1985, pp. 1-7.
<9> Deatherage, Matt. "The Operating System", THE APPLE II GUIDE, Fall

GOOD DEALS #16

by Ken Slingsby

This is another installment in a series of articles which list good deals and press releases that have been brought to our attention via a news source established by Apple Computer Co, AppleLink. Due to the constraints of space in our newsletter and time available, the articles have been greatly condensed. All were posted in their entirety on the Club's BBS. To read the full articles, plead or beg a friend who has access to the BBS to copy it for you.

As an aid in your review of the articles, I have divided them somewhat arbitrarily into DEALS and PRESS RELEASES. The DEALS include price, dates available, and the address of the publisher or author. Most of the DEALS are special limited time offers with a significant price reduction. They are presented here as a service of Mini'app'les. The PRESS RELEASES are to make you aware of the new products. You may have to hunt to find a dealer that supports the product.

Mini'app'les makes no claim as to the usefulness or quality of the products offered herein. The User Group does not endorse the products and is not supporting the products. The following is not paid advertisement. There may be other products mentioned on AppleLink not appearing here. If so, that is an omission, not a refusal of the product. As in all purchases, buyer beware!

Please remember that the Good Deals bargains may be limited in quantity. The seller may not have any product in stock by the time this article is printed.

Products and names mentioned in this document are trademarks of the respective companies.

DEALS

FOR APPLE USER GROUP MEMBERS ONLY
User Group Connction

Notes to Members: If you would like more information or order forms on products listed, please call the number given for the company who makes the product. Some prices do not include shipping or tax. When you call and ask for information, or order a product, identify yourself as a User Group Member. Information is supplied by the vendors, not UGC, so we can't verify the accuracy of these claims.

Portfolio Maker

Portfolio Maker is an easy-to-use, interactive tool for creating an electronic portfolio. It allows users to put up to 20 high-quality, 24-bit color images with text on a single floppy disk. If you are an artist, photographer, designer, illustrator, teacher or someone who distributes visual images, this tool is ideal for you. UGC price of $69 (retail $129). Call 800-410-CRIT.

Digital Eclipse

The Leader in PowerBook upgrades offers accelerator and board upgrades for your PowerBook for as low as $199. Digital Eclipse offers a 30-day money back guarantee and door-to-door 2-day air shipping. Their products are 100% compatible and have a one-year warranty. UGC members get 10% off all regular prices. For more info, call 800-289-3374.

Hitachi MultiPad

A brand new product from Hitachi, MultiPad is a cordless, pressure pen, 6" X 9" graphics tablet. It is a highly accurate and multi-featured device that accepts three dimensional data (X,Y, and Z data, including pen tilt data for calligraphy writing!). This tablet is currently getting rave reviews in the press, and by analysts at the recent PC expo. UGC members can order MultiPad for DIRECT from Hitachi for $219. They offer a 30-day money back guarantee! Contact Tom Bock at 408-747-0777.

Quadrangle Software

LightsOut Sports Fan© is a game simulation screen saver that will make a great gift for Christmas sports fans. This is the only screen saver that has sports game simulation featuring the official logos of the NBA, NFL, NHL, and Major League Baseball. Each Pro version has ten customizable modules with entertaining graphics and sounds. The Collegiate version has eleven conferences to choose from and plays four different sports. Special User Group price of $19.95 available only direct from Quadrangle. Call 800-253-8397.

Stone Age Technologies, Inc.

Magna Stones© are natural trackballs cut from colorful semi-precious stones and minerals. Each MagnaStone is individually crafted and polished to perfection, so no two are exactly alike. Because they are heavier than original trackballs, MagnaStones allow for better control and "trackability." Feel the difference, appreciate the beauty. User Group price is $17.00 each (retail $29.95). Call 310-285-3380 (exp. 2/14/95, Valentines Day).

SunStar Publishing

Arc of Doom© is an earth shattering edu-venture... like Carmen Sandiego with attitude. Personal Backup© is an easy to use control panel that allows you to create simple back up or file synchronization to run at schedule times, in the background. Icon Artist© gives you tools to create your own custom icons, and includes a library of 1000 icons you can change or use. System

Control© helps you avoid conflicts with your extensions and control panels. Special User Group offer is $34 each, or buy 3 for $66. Call 800-660-4480 and mention offer UG4.

Ventana Press

The Official America Online for Macintosh Membership Kit and Tour Guide (second edition) is a book/disk combination that includes the new version of America Online 2.5. This book also includes a new chapter on AOL's Internet access as well as information on new departments. The author, Tom Lichty, offers technical tips and time-saving shortcuts, with hundreds of illustrations and screen shots. The disk includes 20 hours of free on-line time for new users. User Group members save 30%, only$19.50 (shipping included). Call 800-743-5369 or send order by e-mail to orders@vmedia.com (exp. 3/31/95).

For more information on User Group Connection and its vendor discount programs and User Group Member Purchase Program (which sells factory-refurbished Macs to UG Members at steep discounts), call (408) 461-5700, or fax (408) 461-5701, or Link: USER.GROUPS or e-mail eWorld or AOL: UGC; UGC@eworld.com.

Mac OS Software Developer's Kit

Cupertino, California—October 31, 1994—Responding to developer requests, Apple Computer, Inc. today announced availability of a software developer's kit that combines most of its existing software developer's kits into one convenient—and very affordable—package. For U.S. $299, developers can purchase an annual subscription to the new Mac OS Software Developer's Kit (SDK), which is available on a CD-ROM and includes quarterly updates. Another important benefit of the Mac OS Software Developer's Kit is its streamlined approach to software licensing. With a subscription to the Mac OS Software Developer's Kit, developers will receive a disc each quarter that contains the most

recent versions of almost all of Apple's system-software extensions, making it convenient to track these most recent extension releases and incorporate support for them into applications.

Subscriptions to the Mac OS Software Developer's Kit are available immediately through APDA , Apple's source for development tools and related programming products.

APDA, Apple Computer, Inc., P.O. Box 319, Buffalo, NY 14207-0319, 800-282-2732 (U.S.A.)

UGC Pricelist

Here's the User Group Connection User Group Member Purchase Program Pricelist as of Dec. 1, 1994. These deals are available only to current members of Apple-authorized User Groups. Prices include ground shipping. To order, fill out the order form and fax it in or call (800) 350-4842 or e-mail: UGC on eWorld.

All of the items listed here are in limited supply. First come, first served. When we sell out, we sell out. All the hardware products are factory-refurbished with a 90-day Apple warranty. Accepting orders now. [NOTE: UGC offices will be closed between Christmas and New Year's Day.]

Pricelist #941201LM

This information is listed in the following order: Product, Configuration, Price, Availability date, FedEx Additional Cost.

Macintosh TV, 5/160*, $749, Dec. 12, $30; Power Mac 6100/60, 8/160, $1,259, Dec. 12, $30;Power Mac 6100/60, 8/250CD*, $1,529, Dec. 12, $30; Power Mac 6100/60, 8/250CD AV***, $1,849, Dec. 12, $30; Performa 600CD, 5/160*, $859, NOW!, $25; Macintosh LC 520, 4/80, $799, NOW!, $30; Macintosh LC 520, 5/80CD*, $999, NOW!, $30; Performa 450, 4/120**, $779, Dec. 12, $30; Performa 600CD, 5/160*, $859, NOW!, $30; 21-inch color display, ——, $1,439, Dec. 12, $40; StyleWriter II, ——, $189, NOW!, $15; Personal LW 300, ——, $379,

NOW!, $25; JAG II, ——, $39.95, NOW!, FREE.

* = includes internal CD-ROM drive.

** = includes external monitor.

*** = includes internal CD-ROM & AudioVision card.

You may have heard the rumor that UGC has a toll-free 800-# available for the User Group Member Purchase Program (UGMPP). Well, it's true. Starting immediately, User Group members who want to place an order, get the most current information on product availability, or check on the status of an order can call us toll free at: 800-350-4UGC (4842) to place orders and check on order status and product availability.

PRESS RELEASES

APPLE SHIPS CONNECTIX DESKTOP UTILITIES with every Power Mac 7100 and 8100

November 3, 1994, San Mateo, CA- Connectix Corporation today announced a cooperative agreement with Apple Computer, Inc. to include a copy of the award-winning Connectix Desktop Utilities with every Power Macintosh 7100 and 8100. This agreement enables Apple to meet future EPA Energy Star requirements and to continue to ship these systems with the US Environmental Protection Agency's (EPA) Energy Star designation. This designation is an important requirement for marketing personal computers to the federal government and, increasingly, to other large organizations.

CDU is the first software product that the EPA has authorized to bear the Energy Star logo as a Controlling Device for Macintosh CPUs. Energy Star Controlling Devices are designed to be added to personal computers that do not have built in "sleep" functionality. The add-on devices allow these computers to enter into and return from a low-power state in a manner which is both convenient and efficient in

reducing power consumption.

Apple Computers which have been designated as compliant at the time of manufacture, remain so. Apple will start to include CDU on the 7100 and 8100 to ensure continued compliance as the EPA's requirements evolve. Apple will not be updating older systems to meet future EPA requirements.

USA-based Connectix Corp. is the world's largest Macintosh-only software developer. The company's flagship products include the #1 best selling Macintosh software title, RAM Doubler, as well as QuickCam, CPU, CDU, On The Road, Maxima, InfoLog, and Virtual. For more information, contact Connectix at 800/950-5880, 415/571-5100 or fax 415/571-5195. The company can also be contacted via AppleLink or America OnLine

Apple Debuts the Apple CD-ROM Collection

CUPERTINO, California— November 1, 1994—In response to soaring consumer demand for multimedia, Apple Computer, Inc. today announced the Apple CD-ROM Collection, available now for U.S. customers. Customers can select from eight CD-ROM title packs— each with three high-quality CD-ROMs plus Xpand Xpo, a virtual tradeshow on CD-ROM featuring demonstrations of all of the titles in the Apple CD-ROM Collection as well as information about over 10,000 other Macintosh - related products. At $43.50 (U.S.) suggested retail price, the Apple CD-ROM Collection effectively offers three CD-ROMs for the price of one. The Apple CD-ROM Collection contains entertainment and education for every family member with topics ranging from a tour of the solar system to learning to count.

The Apple CD-ROM Collection can be purchased at Apple authorized dealers and software retail outlets in the U.S. To locate a nearby dealer, dial 1-800-538-9696.

PPC Upgrade

CUPERTINO, California— November 3, 1994—Apple Computer, Inc. today announced it expects to begin shipping its PowerPC upgrade card for many of its currently-selling Macintosh entry-level business, education and consumer computers later this month.

The affordable Macintosh Processor Upgrade card, which uses the PowerPC 601 microprocessor, underscores the company's commitment to make it easy for current Macintosh customers to upgrade to the exceptional speed and functionality of Power Macintosh systems. The PowerPC microprocessor, developed by Apple, IBM and Motorola, provides customers with significant price/performance gains, especially when compared with Intel's Pentium microprocessor.

Apple plans to provide upgrades for its current line of entry level computers including the Macintosh Quadra 605, LC 575 and LC 475, and Performa 470 and Performa 570 series. The card also provides an easy upgrade for the recently announced Macintosh Quadra 630, LC 630 and Performa 630 series computers. Apple co-designed the Macintosh upgrade card with DayStar Digital, a leading manufacturer and distributor of microprocessor upgrades for Apple Macintosh computers. In addition, DayStar will provide their own version of the card under the name PowerCard 601. The Macintosh Processor Upgrade is expected to have a U.S. Apple Price of $659. Apple expects to begin shipping the upgrade card by mid November, 1994 in the United States. Availability outside the U.S. will follow. Each Macintosh Processor Upgrade comes with System 7.5, as well as a PowerPC enhanced version of Claris Corporation's ClarisWorks.

Industry's Fastest PC

CUPERTINO, California— November 3, 1994—Apple Computer, Inc. today announced that its blazingly fast Power Macintosh line of personal computers has extended its performance leadership over systems based on Intel's Pentium microprocessor. The Power Macintosh 8100/110 system, announced today, is not only the fastest computer ever offered by Apple, it's also the most powerful personal computer on the market.

Fueled by a 110mhz RISC-based PowerPC 601 chip, the Power Macintosh 8100/110 provides industry-leading performance, flexibility and expandability for the most demanding computer users such as professionals in publishing, multimedia and engineering. The newest computer from Apple joins the current Power Mac product line— the Power Macintosh 6100/60, 7100/66 and 8100/80—and fuels Power Mac momentum among customers and developers.

The Power Macintosh 8100/110 is configured with 16MB RAM, a 2GB hard disk, double-speed CD-ROM drive, and Apple SuperDrive 1.4MB floppy disk drive. As with all Power Macintosh models, the Power Mac 8100/110 can run DOS and Windows applications when used with Insignia Solutions' SoftWindows program. In addition, Power Mac computers run virtually all existing Macintosh applications as well as native applications that are accelerated for Power Macintosh and run two to six times faster than 68K applications on the most powerful 68040-based Macintosh Quadra systems. Currently, over 330 native applications are shipping.

With a U.S. Apple price of $6,379 the Power Macintosh 8100/110 is available today in limited quantities in the U.S. and selected regions worldwide. Volume shipments of the product are expected to start in December 1994.

Power Macintosh 8100/110 Specifications - Power and Speed: 110-MHz PowerPC 601 microprocessor with integral floating-point processor and 32K internal cache, 256K level 2 cache - Memory: 16MB of RAM, expandable to 264MB - Disk Drives: Apple SuperDrive 1.4MB HD floppy drive, internal Apple 2GB SCSI hard drive, internal double-

speed CD-ROM drive - Video Support: 2MB of dedicated VRAM, expandable to 4MB; DRAM display supportfor second display - Expansion: nine built-in ports to support a wide range of peripherals, 3 NuBus slots for expansion cards, on-board Ethernet (AAUI)

Apple Opens First Electronic Publishing Center in China

BEIJING - November 8, 1994 - Underscoring its commitment to the Chinese marketplace, Apple Computer, Inc. today announced the opening of the China Publishing Center located in Beijing with Apple CEO Michael Spindler formally opening the office.

Apple Expands Manufacturing Facilities

CUPERTINO, California-November 11, 1994-Apple Computer, Inc. today announced plans to expand its manufacturing operations in Elk Grove, California, with the addition of a 200,000 square-foot logic board manufacturing facility. The new building in Sacramento county will be located adjacent to Apple's existing site, which currently performs system assembly, distribution, and service logistics functions. The expanded operations are expected to result in approximately 300 new jobs.

The logic board facility location was selected due to its proximity to the system assembly functions, as well as the favorable business climate in California. Construction of the new building is planned to start immediately, becoming operational in late 1995.

Apple Tops U.S. PC Vendor List For Q3 '94

CUPERTINO, California— November 15, 1994—Apple Computer, Inc. today announced that industry reports say it has taken the lead as the top selling vendor of personal computers in the United States for the third quarter of 1994. According to market research firm Dataquest, Apple shipped the largest

number of personal computers in the U.S. for the period July through September 1994, capturing 13.1% marketshare. According to Dataquest, total U.S. shipments of personal computers hit 4,890,000 units for the third quarter, a 34 percent increase over the same period last year. Dataquest reports Apple shipped 641,492 units. During the same period, Apple reported its highest quarterly revenues in the company's history and quarterly unit shipments in excess of one million units for the second time in company history.

Apple Unveils MS-DOS- and Windows-compatible Power Macintosh System and Card

LAS VEGAS, Nevada November 14, 1994 Strengthening its commitment to provide cross-platform compatibility between the Macintosh and Windows/X86 platform, Apple Computer, Inc. today announced the Power Macintosh 6100 DOS Compatible system and DOS Compatibility Card for Power Macintosh 6100 and Macintosh Performa' 6100 Series.

By removing compatibility as a barrier to consider Macintosh, the Power Macintosh 6100 DOS Compatible is expected to attract new customers to the Macintosh platform. These products build on the market success of previous cross-platform products such as the Macintosh Quadra 610 DOS Compatible.

Customers Can Run Full Range of Macintosh, DOS and Windows Applications Powered by a PowerPC 601microprocessor and a 486 DX2/66 microprocessor, the Power Macintosh DOS Compatible system runs more applications than any other personal computer on the market. It runs the widest range of mainstream PC software including DOS, Windows, and Macintosh applications in addition to the more than 360 native applications which have been optimized for Power Macintosh.

Ideally suited for home, educa-

tion, and business customers who work in mixed computing environments, these products enable users to easily switch between the Macintosh and DOS computing environments with a simple keyboard command.

The Power Macintosh 6100 DOS Compatible system is expected to be configured with 16MB of RAM, a SuperDrive floppy disk drive, 350MB hard disk and built-in ethernet port and is anticipated to have an Apple price of US$2,499. The DOS Compatibility Card may be installed in Power Macintosh 6100 systems or Performa 6100 Series products and is expected to have an Apple price of US$699. Both the system and card are expected to be available in the first calendar quarter of 1995. Specific pricing and availability will be announced at a future date.

Apple Ships Five-Port Hub for Workgroups

Dateline: CUPERTINO, California—November 21, 1994 Apple Computer, Inc. today announced the availability of the Apple Ethernet 10T/5 Workgroup Hub. The new compact five-port hub is designed to easily connect five computing devices together to form an industry-standard 10Base-T Ethernet network. It is ideal for small- to medium-size workgroups. The compact hub, which is slightly larger than an Ethernet transceiver, comes ready to use out-of-the-box and requires no additional configuration software. An optional external power adapter is available separately for customers who want to power the hub independently of a host. It is compliant with IEEE 802.3 standards and supports all popular networking protocols and software, including AppleTalk ,TCP/IP, IPX, DECnet, MacIPX and Apple Internet Router server software.

The Apple Ethernet 10T/5 Workgroup Hub is available now through Apple authorized resellers in the U.S. It is Apple Priced at $149 in the U.S. Pricing and availability may vary outside the U.S. Customers can

locate a nearby Apple reseller by calling (800) 538-9696. For more information on the new workgroup hub, call the Apple Network Information Line at (408) 862-3385, or by AppleLink at ABS.NETINFO.

Apple Announces Support for Enhanced CD

Apple announced its support for the emerging standard for enhanced CD. An enhanced compact disc can be played not only on an audio CD player, but also in a CD-ROM player attached to a computer. Companies in the music and software industries have been working together to create a standard for a new generation of compact discs called enhanced CDs—sometimes referred to as "CD Plus." Enhanced compact discs offer many benefits to developers, consumers and retailers. Because enhanced CD technology is based on an emerging industry standard, developers will find it easy to author these multi-session, dual-purpose discs. In addition, developers can use existing musical material and add interactive multimedia content to create an entirely new experience. Consumers can purchase one disc and either enjoy it as a music CD or as an interactive multimedia title. Retailers are endorsing the enhanced compact disc concept because it results in one product rather than three separate items—audio CD, Apple Macintosh CD-ROM, Windows CD-ROM—that take up valuable shelf space.

New Interactive Music Developers Program Unveiled

Apple outlined its plans to extend its well-established Apple Multimedia Program to music professionals. The Apple Multimedia Program is designed to spur the development of multimedia products by providing marketing and technical information to its more than 1,500 members in the growing areas of multimedia authoring and playback. The new Interactive Music Developers Program will provide music publishers and professional musicians with what they need to create interactive CDs that can be played not only on audio CD players, but also Macintosh and Windows computers. Specifically, the new program will offer informational materials, tools, worldwide seminars and, events.

QuickTime an Integral Component of New Program

Apple announced that increasing numbers of music professionals are using the company's QuickTime technology in creating multimedia products. Using QuickTime—Apple's cross-platform multimedia software—music professionals can create material that incorporates sound, video, text, graphics and animations and deliver that content to many different platforms—including Macintosh and Windows computers and enhanced CDs. Apple's QuickTime is already a standard for interactive music CD-ROMs such as Peter Gabriel's trend-setting Xplora. Yesterday, Apple announced that QuickTime 2.0 for Windows is now shipping; the Macintosh version has been available since June. QuickTime 2.0 is significant as it allows for larger, faster video— resulting in a more TV-like experience for the consumer.

Apple RAID

CUPERTINO, California—November 21, 1994–Apple Computer, Inc. today announced that it is now shipping Apple RAID (Redundant Array of Independent Disks) Software for Apple's PowerPC microprocessor-based Workgroup Servers 6150, 8150, and 9150. Apple's RAID technology provides Workgroup Server customers an easy way to protect critical data and improve disk performance. Apple RAID Software will be bundled with all PowerPC-processor based Workgroup Servers at no charge. This is in keeping with Apple's strategy of providing its customers a complete server solution for its PowerPC processor-based Workgroup Servers. Apple RAID Software works seamlessly with many third-party disk drive products. Apple recommends customers purchase external disks from quality resellers that offer disks with a minimum capacity of 200 MB and are fully compatible with Apple's SCSI Manager 4.3 software and SCSI-2. Currently, Apple RAID Software is compatible with System 7.1.2, which is the certified system software for the first generation of PowerPC processor-based Workgroup Servers.

Apple RAID is now included with all of its PowerPC processor-based Workgroup Servers at no charge. Apple RAID Software is also available to customers who have purchased PowerPC Workgroup Server logic board upgrades for the following systems: Workgroup Servers 60 and 80, and any Quadra 610, 800, 900 or 950.

Apple intends to send Apple RAID Software to PowerPC processor-based Workgroup Servers and PowerPC Workgroup Server logic board upgrade customers who have returned their product registration card. This offer ends February 28, 1995.

For more information on Workgroup Servers and Apple RAID Software, contact the Apple Network Information Line at (408) 862-3385, or by AppleLink at ABS.NETINFO.

UGC Information

To order from UGMPP, please write your full name, User Group, shipping address(no P.O. Boxes), day and evening phone numbers, e-mail address(if applicable), type of payment: Cashiers check (payable to "User Group Connection", must be recieved before shipment), Discover, American Express, Visa or MasterCard with card number and expireation date(please do not send card numbers by e-mail), quantity and product description, price(please add sales tax for CA residents only), extension, next day FedEx shipping option(required in AK and HI), and grand total.

Please place your orders by either fax: (408) 461-5701, phone: (408) 461-5700, e-mail: AOL or eWorld:

UGC, AppleLink: USER.GROUPS, mail: UGMPP, 231 Technology Circle, Scotts Valley, CA 95066

Questions or Problems? Call (800) 350-4842 or (408) 461-5700.

Policies:

30-day, no-questions-asked, money-back guarantee We recommend specifying FedEx to ensure delivery by Christmas In-stock products shipped next day for orders received by noon PDT

All prices INCLUDE UPS ground shipping (except AK & HI) Next-day FedEx available for an additional fee Refurbished products carry 90-day warranty We cannot guarantee ship date for products not currently in stock Visa, MasterCard, American Express, Discover card or cashier's check accepted Only members of Apple Authorized User Groups in the US may participate

Limit: two of any item per member Not responsible for e-mail delays or typos. Please ask for updated information. Orders will be filled in the order received

Avoiding Christmas Eve Nightmares:

The complications of buying a multimedia computer can give you more nightmares than Scrooge himself had on Christmas Eve. But before you give up and mutter "Bah, Humbug!," consider this: a multimedia computer can be a springboard to years of family fun and learning. With the explosive growth of multimedia PCs on the market and new CD-ROM titles for every member of the family, there has never been a better time to buy.

Apple has developed an informative booklet "A Parent's Guide to the ABCs of Learning on a Home Computer." Consumers can request the booklet by writing: Apple Computer, Inc. Attn: ABCs of Learning, 1 Infinite Loop, M/S: 76-4PR, Cupertino, CA 95014

Bullfrog™ Math & Chemistry

by Science Education Software
Review by Pamela K. Lienke

What a name! Bullfrog™ Math & Chemistry by Science Education Software has, as its name suggests, both math and chemistry modules. This program uses a game format to drill various aspects of math and chemistry. The graphics are charming; between each level of a particular module of the game, the user watches a tadpole turn into a frog. On my LCII the metamorphosis was slow; perhaps I'm too impatient. Throughout the game the frogs appear at the bottom of the screen apparently relaxing on the bottom of the pond. Each frog has an answer on its body. The background scenery above the pond changes between levels. Here the bugs of various types and sizes all with problems of some sort on their bodies, fly by. To score points the user clicks on the frog and drags its tongue to the appropriate problem on a bug. Make the correct match and the bug falls. If not, a sad face appears. All the while sounds accompany the various actions. By making the appropriate selection from the menu, the user may select more or fewer frog, hence more or fewer answers. The bugs with their problems can be made larger or smaller in size. The user is also given the choice of increasing the speed and quantity of the bugs. When finished, the user can make still another menu selection to find out how many problems were answered correctly and how many tries it took to answer correctly.

The math modules on the demo version seemed to be geared to elementary students. According to the promotional literature, the math software if for grades K-8. Game topics include counting and number line and arithmetic. The first module has the user matching dots on the bugs to the numeral shown on the frog. The number line module, depending on user choice, has a row of consecutive positive or positive and negative numbers located, as always, on the frog body. As the bugs pass overhead, the user decides which number on the bug precedes that number and makes, hopefully, the appropriate choice. The arithmetic module has easy multiplication problems. At least on the demo disk, the user is presented with the same problems over and over; how many ways are there to equal 6,18, 90, and so forth? Since the demo mode has only two levels, I have do not know how difficult the problems become. As a drill and practice program, these modules offer the user plenty of exercise.

The game topics in the chemistry modules include element names and symbols, ion charge and formula, and balancing chemical equations. These include chemistry terms and equations that might be found in a high school or college text, although the graphics and the game are the same as for the math modules. Here the promotional material indicates the software is for grade school (grades 5 and up), high school, and college chemistry students. My high school student who is presently taking chemistry, had no interest at all. My college son, a biology major, found it to be a good review. He was not concerned with the nature of the game but was concentrating on solving the problems.

If you want a computer program for drill and practice, Bullfrog™ Math & Chemistry will fill the bill. The demo disk will be made available on an upcoming eDOM. The retail list price is $39.95. Apple User Group discounted price is $19.95.

Mini'app'les Board of Director's meeting minutes

November 3, 1994
Matthews Center, Minneapolis

Attendance

Members: Greg Carlson, Brian Bantz, Jacque Gay, Roy Sorenson, Erik L. Knopp, Les Anderson, Bob Demeules, Steve Thompson, Eric Jacobson. Absent: Owen Aaland. Excused: David Laden. Guests: Bruce Thompson, Dick Peterson, Nick Ludwig, Jack Ferman.

October meeting minutes were accepted with minor correction.

Treasurer's Report
by Jacque Gay:

Bond insurance has been arranged as a rider to our liability insurance for $32, retroactive to October 24 through Aug. 1, '95. The club made $22 in October.

President's Report
by Greg Carlson:

No report this month.

Vice President's Report
by Brian Bantz:

We have 10 reservations so far for the swap meet Nov. 19 at Apache Plaza. The member discount coupons for System 7.5 are still available and valid to Nov. 30. Brian wants to make a resource list of meeting sites. He is continuing follow up on member renewals and BBS log-ons. Brian asked Bob for a monthly list of new and resigning members so he can contact them. A showing of the Apple UGTV broadcast this month has been arranged at Faith United Methodist Church. Members interested in evaluating software for the newsletter should contact Brian with their areas of interest. Brian needs 9 more people for a group order of the System 7.5 book.

Membership Director's Report
by Bob Demeules:

Total membership is now 369. Bob and Owen have not completed the new member kits yet. Discussion on how to increase membership. It was pointed out that without advertising revenue, the membership dues only cover membership costs (the largest component being the newsletter).

Software Report
by Owen Aaland (reported by Les Anderson):

Oct. EDOM income $26. Bruce Thompson said Mac EDOM #908 has been released.

Mac SIG Director's Report
by Eric Jacobson:

He is working on a PhotoShop SIG, but needs a SIG leader. Discussion that various SIGs have come and gone over the years. It was suggested to start with forming a PhotoShop folder on the BBS: Dick said setting up a new folder would not be a problem. This month the HyperCard SIG will determine its future direction.

Apple II SIG Director's Report
by Les Anderson:

Les said the Apple SIGs are set through December, and he is working on 1995 meetings and locations.

Publications Director's Report
by Steve Thompson:

He hasn't heard from UW-Stout with an estimate for printing the newsletter. Sir Speedy (our current printer) credited us with the difference for the October cover stock (Astrobright –higher cost than regular cover stock). Newsletter postage is $60 / month (50¢ / issue). A special summer issue was raised as an idea (a larger newsletter in place of 2 monthly issues). We still need someone to correct the Members Helping Members area.

Operations & Resources Director's Report
by Erik Knopp:

The overhead LCD projector is not working with the Apple IIGS; Dick Peterson will see if it will work with the Mac.

BBS Report
by Sysop Dick Peterson:

The club modem is back after repairs (in the interim we were running off Chuck's modem). BBS usage is up to 80 members, daily usage averages 4 hours total, 19 callers using GUI, 10 using command line. Dick reported recent problems with the CD-ROM, he will try to fix it. (HINT: if you have call waiting, punching 'STAR–7-0' will disable it for your BBS call). The First Class client 2.6 has been released, but there is no reason for users to upgrade. Dick asked that the membership list (name, phone, zip code ONLY) be available on the BBS; Bob will upload it. Discussion on moving the BBS location, due to on-going billing problems and access. There is a member willing to house it. Motion by Bob and seconded to move the BBS location, with unanimous approval. Discussion on a second BBS phone line, with Bob and Brian strongly in favor: in view of current finances and BBS usage level, no action taken at this time. New Business: on BBS file guidelines, current policy is basically only the software director's staff can pass files for general download. Our self-policing rules are no pirating of software, no copyright infringement, no obscenity or pornography is allowed. We will offer for sale at the swap meet the club Apple IIe and Apple II+.

Adjournment:

Next executive board meeting 7:30, Nov. 17 at Jacque's. Next board meeting 7 pm, Thursday, Dec. 1, Matthews Center, 2318 29th Ave. S., Minneapolis.
Submitted by Roy Sorenson, secretary.

Mini'app'les Handy Form

Name: _____

Company: _____

City, State, Zip _____

Phone (Home) _____ (Work) _____

Occupation _____

Member ID#(if applicable): _____ Expiration date: _____

If this is a change of address notice, please afix your current mailing label here, or provide the corresponding information. Be sure you have written your new address on the lines above.

ID#: _____ Exp. Date: _____

Name: _____

Street: _____

City, State, Zip: _____

New and Renewing Members – specify your level of support

- ❑ Individual $25.00
- ❑ Student* $15.00
- ❑ Sustaining.......$40.00
- ❑ Foreign $40.00
- ❑ Educational.....$50.00
- ❑ Corporate......$100.00

*Must be a Full-time student of an accredited institution.

Make Checks Payable to "Mini'app'les"

❥𝒴𝑒𝓈·· 𝓘'𝒹 𝓁𝒾𝓀𝑒 𝓉𝑜 𝒿𝑜𝒾𝓃!

If this is a new membership, or a renewal, please take a few minutes to fill out the questioniare.

Which personal computer(s) do you use?

- ❑ Apple II
- ❑ Apple III
- ❑ Apple IIe
- ❑ Apple IIc
- ❑ Apple IIc+
- ❑ Apple IIGS
- ❑ Laser
- ❑ "Toaster" Mac – 68000 (128K,512K, 512Ke,Plus,SE,Classic)
- ❑ Other 68000 (Mac Portable, Powerbook 100)
- ❑ "Desktop" Mac – 68020 (II, LC)

- ❑ "Toaster" Mac – 68030 (SE/30, Classic II,Color Classic,Color Classic II,LC 520, LC 550, Mac TV)
- ❑ "Desktop" Mac – 68030 (IIx,IIcx)
- ❑ "Desktop" Mac – 68030 (IIsi,IIci,IIfx,LC II,LCIII,IIvx)
- ❑ "Desktop" Performa – 68030 (400,405, 410,430,450,460,466,467,600)
- ❑ "Toaster" Performa – 68030 (200,275, 550,560)
- ❑ "Toaster" Performa – 68040 (575,577, 578)

- ❑ "Desktop" Quadra 68040 (605,610,630, 650,660AV,700,800,840AV,900,950)
- ❑ "Desktop" Centris (610,650,660AV)
- ❑ Powerbook – 68030 (140,145,145B, 160,165,165c,170,180,180c)
- ❑ Powerbook – 68040 (520,520c,540, 540c)
- ❑ Powerbook Duo 68030 (210,230,250, 270c)
- ❑ Powerbook Duo 68040 (280,280c)
- ❑ PowerMacintosh (6100,7100,8100)
- ❑ Other_____

What attachments or peripherals do you use?

- ❑ QuickDraw printer
- ❑ PostScript printer
- ❑ Modem
- ❑ Scanner/digital camera
- ❑ Drawing tablet
- ❑ Voice mail
- ❑ MIDI
- ❑ Other_____

What are your areas of special interest?

- ❑ Business applications
- ❑ Household applications
- ❑ Educational applications
- ❑ Desktop Publishing
- ❑ Programming
- ❑ Networking
- ❑ Games
- ❑ Other_____

- ❑ Check if you want your name withheld from commercial and other non-club mailing lists
- ❑ Check if you are interested in volunteer oppertunities (see other side)
- ❑ Check if you were refered by a club member. Please give name
  _____

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eDom Orders

Prices:

5.25" eDom:	$3.00
5.25" System:	$1.00
3.5" eDom:	$5.00
3.5" System:	$3.00
Mac System 7:	$15.00

(Prices include 6% Minnesota sales tax)

| Disk size	eDom	Title or Description	Qty.	Price @	Total

Total merchandise	
Double price for non-members	
Add $1/disk shipping ($4.00 max)	

Make checks payable to "Mini'app'les"

Grand Total:

Current Apple System Software

	Version	Date	Format
Apple II, II+, IIc, IIe			
Dos 3.3 System Master	n/a	09/10/85	5.25"
Apple II System Disk	3.2	07/16/90	5.25/3.5"
ProDOS 8	1.9	07/16/90	5.25/3.5"
Apple IIGS			
GS/OS System (6 disks)	6.0	4/92	3.5"
HyperMover(2disks)	n/a	n/a	3.5"

Last Fold – Seal with Tape

Attention:
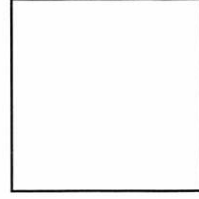
Mini'app'les
P.O. Box 796
Hopkins, MN 55343-9905

2nd fold

1st fold

Dear Mini'app'les
Please direct this to the:
☐ Membership Director
☐ Software Director

wish, (of course), that the video sequences could be full-screen and higher resolution, and Dolby Surround Sound would also be nice. Gadget tries to achieve the film-like suspension of disbelief, and, despite the confines of CD-ROM, it on occasion succeeds. I found myself imagining what this film would be like on a laser disk, or even better, on 70mm Panavision. I also found the scripting to be somewhat disjointed... there seemed to be inconsistent logic applied to important events in the story. Sometimes, you are drawn into the scene and can interact with characters/situations, and at other times, just when you want to walk down an aisle or corridor, the movie whisks you away and sends you to another scene. This was very frustrating to me. And another thing...why is there not ONE FEMALE in this film!? I must admit that female roles are rare in computer games (probably because most women could care less about the testosterone-fueled madness that constitutes the vast majority of computer gaming), but in this type of game/interactive film, strong female roles would be perfect! (Think of Myrna Loy or Greta Garbo). I really think that the designers blew it on this point, as I kept hoping (actually praying) that Rachel Ward would meet me at the train station in a tailored suit, to deliver a last minute message of

warning, or pull a revolver out of her purse and nail the creep that was sneaking up behind me! Oh well...all in all, this film was very well done, with cinema-like camera angles, a compelling plot, and an unexpected ending.

Director Haruhiko Shono (Alice and L-Zone), has once again expanded the CD-ROM field by defining (at least in one incarnation) the interactive film.

Check out Gadget if you want to get a glimpse of how movies are likely to be made in the next century.

GADGET, from Synergy, Inc., Retail Price $79.99 (Available for much less of course). System Requirements: Macintosh mainframe! 25MHz 68030 or better, System 7 or higher, 8MB of memory, 640 x 480/256-color video, Double-speed CD-ROM drive.
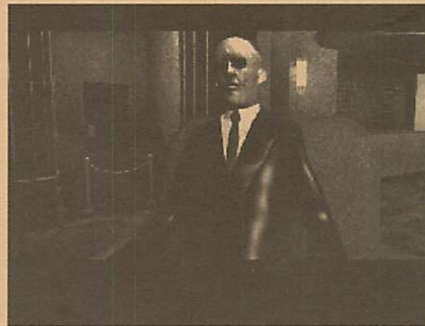
Scene from Gadget

1990, pp. 117-125.
<10> Hunter, Skillman. "Road Maps To Apple II Disks: DOS 3.3, CP/M, Pascal, and ProDOS", CALL-A.P.P.L.E., Feb 1985, pp. 10-21.
<11> Weishaar, Tom. "Breaking the incompatibility barrier:An introduction to Apple's GS/OS", OPEN-APPLE, Nov 1988, pp. 4.75-4.78.
<12> Deatherage, Matt. "The Operating System", THE APPLE II GUIDE, 1992, pp. 111-113.

Treasurer's Report November 1994

Profit & Loss Statement   *by Jacque Gay*

Income . . . .
Memberships $375.00
Advertising. $115.00
Software Sales Net of Sales Tx $57.28
Total Income $547.28

Expenses . . . .
Publications/Newsletter $520.71
Hardware/Resource Support $23.40
Total Expenses $544.11

Net Profit/(Loss) **$3.17**

 mini'app'les
Box 796
Hopkins, MN 55343
ADDRESS CORRECTION REQUESTED

 mini'app'les membership card

Expire 99-12   ID No: 0160

DAN B BUCHLER
2601 WOODS TRAIL
BURNSVILLE MN 55337