

# Mini' app'les

Minnesota Apple Computer Users' Group, Inc. \$2.00

## Newsletter

In this issue:

Apple vs Sharp

The RISCs Ahead

More Good Deals for Members



*Minnie's Christmas Wish-list:*

- \* A worthy buyer for my old Apple IIc
- \* A wealthy buyer for my big Mac IIci
- \* A Newton with all the accessories
- \* A PowerBook with an active-matrix color screen
- \* A Quadra AV with a firm commitment on an upgrade to a PowerPC
- \* A pony

## December Events

Sun	Mon	Tue	Wed	Thr	Fri	Sat
			1	2 7pm	3	4
5	6	7	8	9 7pm	10	11 1pm
12	13 7pm	14 7pm 6:30	15	16 7pm 7pm	17	18
19	20 7pm	21	22	23	24	25
26	27 7pm	28	29	30	31	

- Board of Directors - Mini' app'les Members Welcome** - Penn Lake Lib, 8800 Penn Ave. S., Blmngtn - Greg Carlson, 544-8252
- Macintosh Main** - St. Louis Pk Lib, 3240 Library Lane, St. Louis Pk. - Mike Carlson, 377-6553
- Programmer's Workshop - Think C program coding** - Brookdale-Henn Lib, 6155 Shngle Creek Pky, Brkn Ctr. - Keven Kassulker, 535-2968
- Apple II/GS Main - Games** - Lexington Library, University & Lexington, St. Paul - Tom Ostertag, 488-9979
- Apple II Novice SIG** - Murray Jr. High School, 2200 Buford, St. Paul - Tom Gates, 789-1713
- ClarisWorks SIG - Word processor** - Norwest Bank, 5320 Lyndale Ave. S., Mpls - Denis Diekhoff, 920-2437

- AppleWorks SIG - TimeOut, PowerPack** - Murray Jr. High, 2200 Buford, St. Paul - Les Anderson, 735-3953
- FileMaker Pro SIG** - Highland Park Lib., 1974 Ford Pky, St. Paul - Steve Wilmes, 458-1513
- 4th Dimension SIG** - Metro II, 1300 Mendota Hts Rd, Mndta Hts - Ian Able, 920-5520
- Macintosh Novice SIG** - Highland Pk Lib, 1974 Ford Pky - Tom Lufkin, 698-6523
- Mac Programmer's SIG** - location pending - Gervaise Kimm, 379-1836
- Macintosh DTP SIG** - details pending - Bob Grant, 827-6294
- HyperCard SIG** - suspended; resumes in January - Peter Fleck, 370-0017



### About the Newsletter:

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**Article 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 15th 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.

### Helping Hands:

Calendar Updates	Erik Knopp	636-3244
AppleLink Liaison	Tom Mehle	—
“Good Deals”	Ken Slingsby	(507) 263-3715
Advertising Help	Lance Weber	542-9331
Graphics Contributor	Roy Sorenson	870-7366
Design Consultant	Susan Bacig	—
Mail Distribution	Wayne Couillard	—
Indispensible Resource	DTP Exchange BBS	633-8406

### Help Wanted:

Publisher/Editor	<i>volunteer!</i>	call Keven, 535-2968
Mac Editor	<i>volunteer!</i>	call Keven, 535-2968
Apple II Editor	<i>volunteer!</i>	call Keven, 535-2968
BBS Editor	<i>volunteer!</i>	call Keven, 535-2968
Graphics/Photos	<i>volunteer!</i>	call Keven, 535-2968
Advertising Director	<i>volunteer!</i>	call Keven, 535-2968
Ad Rep. – St. Paul	<i>volunteer!</i>	call Keven, 535-2968
Ad Rep. – Mpls	<i>volunteer!</i>	call Keven, 535-2968
Ad Rep. – Statewide	<i>volunteer!</i>	call Keven, 535-2968
Ad Rep. – National	<i>volunteer!</i>	call Keven, 535-2968
Ad Rep. – your neighborhood		<i>call now!</i> 535-2968

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### About the Club:

Mini'app'les is a non-profit organization dedicated to the dissemination of information about Apple computers and related products, and to facilitate the sharing of knowledge, among members at large, concerning computers in general.

### Mini'app'les Board of Directors

President	Gregory L. Carlson	544-8252
	8216 32nd Ave. N. Crystal, MN 55427	
Vice-President	Tom Gates	789-1713
	3425 Wilshire Place Minneapolis, MN 55418	
Secretary	Leroy Sorenson	870-7366
	308 W. 22nd St., apt.101 Minneapolis, MN 55404	
Treasurer	Jacque Gay	722-1239
	5226 W. Nokomis Pkwy Minneapolis, MN 55417	
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Operations & Resources	Allen Mackler	424-8889
Publications Director	Keven Kassulker	535-2968
	7779 48th Ave. N. New Hope, MN 55428	
Software Director	Samuel Goshorn	827-4948
SIG: Macs	Wade Brezina	(715) 485-3585
SIG: Apples	Erik Knopp	636-3244
Past President	David E. Laden	488-6774

**Questions** – Please direct questions to an appropriate board member. Users with technical questions should refer to the Members Helping Members section.

**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.

**Mini'app'les BBS (Mini'info'net)** – 892-3317,  
 24 hours: 8 data, 1 stop, 0 parity

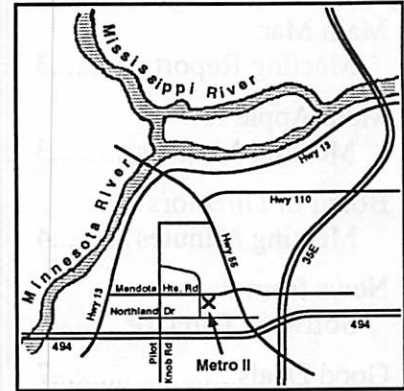
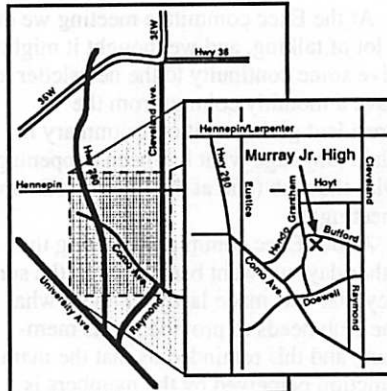
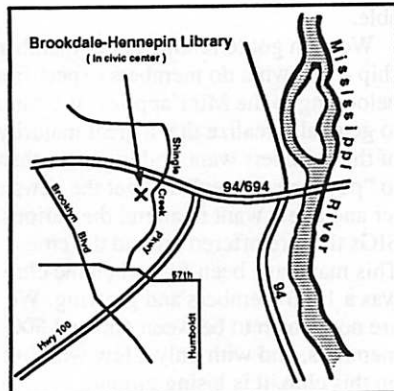
**Mini'app'les Voice Mail** – 229-6952

**Meeting Information** – Please phone calendar dates and changes to: Erik Knopp at 636-3244.

**Newsletter Queries** – call Keven Kassulker, 535-2968

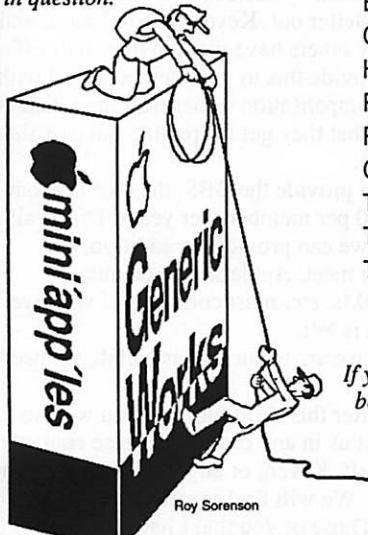


# Meeting Maps...



## 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.



Roy Sorenson

<u>Apple II</u>	<u>Key</u>
AppleWriter	2
AppleWorks	2, 23
Ascii Express	3
BASIC	5
Dazzle Draw	23
DB Master	7
Educational Software	23
General Information	23
Home Acc'n't	20
PublishIt!	23
ProTERM	23
Quicken	23
Talk Is Cheap	3
TimeOut	2
TO Graph	2

<u>Apple IIGS</u>	<u>Key</u>
AppleWorksGS	15
APW	20, 23
Complete Pascal	10
Delux Paint II	23
General Information	3, 10
Graphic Writer II/III	15
GS/OS	3, 10
HyperStudio GS	3
Merlin 16+	15
Mousetalk	15
PaintWorks Plus/Gold	15, 23
Prosel	2
TML Basic	3, 10
TML Pascal	3, 10
Writer's Choice	15

<u>Apple III</u>	<u>Key</u>
General	12

<u>Macintosh</u>	<u>Key</u>
Adobe Illustrator	21
Beginners	13, 14, 18
Canvas	5
FileMaker II, Pro	1, 17
Freehand	22
General	14, 17, 18
Helix	16
HyperCard	6, 9
MacDraft	5
MacDraw	5
MacPaint	5
Mac OS	4, 18
Microsoft Excel	5, 6, 17
Microsoft Word	4, 5, 6, 14, 17
Microsoft Works	11, 17
Networking	5, 6, 13
PageMaker	4, 6, 17
PostScript	8
Power Point	5
QuickBasic	5, 6
XPress	21

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.

- |                 |          |    |                    |              |     |                    |              |     |
|-----------------|----------|----|--------------------|--------------|-----|--------------------|--------------|-----|
| 1. Steve Wilmes | 458-1513 | E  | 9. Peter Fleck     | 370-0017     | DEW | 16. Arnie Kroll    | 433-3517     | E   |
| 2. Tom Ostertag | 488-9979 | E  | 10. Randy Dop      | 452-0425     | EW  | 17. Michael Foote  | 507-645-6710 | DEW |
| 3. Tom Gates    | 789-1713 | EW | 11. Ed Spitzer     | 432-0103     | D   | 18. Richard Becker | 870-0659     | EW  |
| 4. Tom Edwards  | 927-6790 | E  | 12. Bob Rosenberg  | 377-4300     | EW  | 20. Steve Peterson | 922-9219     | EW  |
| 5. Earl Benser  | 884-2148 | EW |                    | 340-0234     | D   | 21. Jodi Roste     | 933-1698     | EW  |
| 6. Dan Buchler  | 435-3075 | E  | 13. John Hackbarth | 715-246-6561 | D   | 22. Nancy McClure  | 227-9348     | DEW |
| 7. Ann Bell     | 422-1115 | E  | 14. Jim Horswill   | 379-7624     | DEW | 23. Rand Sibet     | 566-8571     | EW  |
| 8. Fritz Lott   | 377-3032 | E  | 15. Tom Michals    | 452-5667     | DEW |                    |              |     |

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.

## Contents

President's Report .....	2
Main Mac Meeting Report .....	3
Main Apple II Meeting Minutes .....	3
Board of Directors Meeting Minutes .....	4
News from the Software Director .....	5
Good Deals.....	7
The MessagePad vs. the ExpertPad .....	9
RISCy Future .....	10
The History of the Apple II (part 8) .....	13

## Advertisers

HyperActive Software .....	3
MUG News Service .....	3
RAMCO Sales .....	6
Twin Cities Computer Network.....	8
Cactus Software & Communications .....	8
Guy Kawasaki.....	9
Solutronix.....	10
Digital Magic ...inside back	
Sir Speedy Printing .....	back cover

# President's Report

## November 1993

At the Exec committee meeting we did a lot of talking, and we thought it might give some continuity to the newsletter to have a monthly column from the President giving a bit of a summary in plain language what has been happening with the club (and at the Exec and Board meetings).

At our Exec committee meeting the other day, we went back through the survey that was made last year about what the club needs to provide for its members, and this reminded us that the main function perceived by the members is that of COMMUNICATION.

Being a dual-platform user of Apple products, I have a slightly different perspective from those who are pure ][ or pure Mac users. I've seen the emphasis go from hardware for the ][ line in the beginnings of the Mini'app'les to software-orientation of the present time. Computers seem to be more of a necessity and commodity now rather than a "hacker's dream machine" of the past.

First, I'd like to thank those who have unselfishly worked at helping the club. This includes our BBS sysop Dick Peterson, who has lately been looking at getting better equipment for our BBS. This includes software and hardware. I'll let you know more as information develops.

My thanks to Gary Kjellberg, who has been instrumental in getting eDOM coupons to those that have article submissions accepted for publishing in the newsletter. For those of you who don't know about it, if you submit an article, and it is published, you receive a coupon for an eDOM of your choice. We feel that this is a way to say thanks for helping us with getting information in a useful manner to the members.

While I'm in the thanking mode, I want to express my thanks to the SIG leaders - Keven, Tom G., Tom L., Peter, Tom O., Mike, Gervaise, Les, and any I forgot to mention. You have been great in keeping the SIGs functioning smoothly and keeping them interesting.

For a while we have been discussing making available a sample "eDOM" for general distribution to all those interested for no charge. Due to cost cutting and a questionable rate of return, we have decided not to make such a disk avail-

able.

We then got to talking about membership - just what do members expect from belonging to the Mini'app'les. We came to generally realize that a great majority of the members want nothing more than to "pay their money" and get the newsletter and a few want to attend the various SIGs that are offered around the cities. This may have been fine when the club was a 1500 members and growing. We are now down to between 400 and 500 members, and with only a few working on this club, it is losing ground.

What is your responsibility as a member?

Being a member of Mini'app'les is more than just paying your \$25 and getting a newsletter. It takes time and effort to put out this newsletter, provide the BBS, and sponsor various functions during the year. It takes everyone to spend some time promoting the club, assisting where necessary, and willing to take the burden off some of us die-hards!

Our cost for the newsletter (printing and mailing costs only) runs about \$2.00 per copy sent. For your \$25, you should receive 1 copy per month. This does not take into account the time and effort expended by various members to get this newsletter out. Keven, Hugh, Lance, and many others have worked their tails off to provide this to you members, and with no compensation (other than the satisfaction that they get for putting out a quality item).

To provide the BBS, the cost is about \$1.00 per member (per year). This is all that we can provide. In addition, the swap meet, AppleLink accounts, eDOMs, etc. must come out of whatever little is left.

If we are to survive as a club, we need help!

After this short blurb, if you wish to assist us in any capacity, please contact myself, Keven, or any of the board members. We will find something for you to do. Those of you that I haven't mentioned that are already working hard, don't volunteer for more - you're probably overloaded.

*Gregory L. Carlson*  
*President, Mini'app'les* 🍏



## Main Mac Meeting Report

by Thomas Ostertag

The meeting was held at Mirror Technology Inc. in New Brighton rather than our usual meeting sites. Mike Carlson started the meeting by introducing several Mirror personnel, Steve Schewe, the president, Joe Schnide, Tech support, Christy Graham, Sales and Mike Evangelist, also sales. There were several announcements including the Swap Meet on 13 November and the location of the next several Mac Meetings. The December meeting topic will be members demonstrating their favorite software and will be at the St Louis Park Library on Library Road. The January meeting will be back at the Penn-Lake Library and the topic will possibly be WordPerfect.

Questions and Answers had several interesting topics. There was a FileMaker Pro question about sorting (couldn't be done), a Word/Excel question about opening a document and not having it zoomed in even when it was saved in the zoom mode... use the lower right button to zoom rather than the upper right button, a question if anyone else had a sleepy DuoDock... recommended a longer sleep or stronger coffee and a few comments about the Kennsington Turbomouse and the new AV machines. There was also a comment about an invisible, immovable file that the Turbomouse created on the hard drive that cause a great deal of consternation.

## Main Apple II Meeting Minutes

by Thomas Ostertag

Unseasonably cold outside, but warm and friendly inside as we gathered for the monthly Apple II Meeting. Erik Knopp and Tom Gates were setting up the television to be used as a monitor while we started the meeting with Introductions and then announcements. The typical, next AppleWorks meeting will be on Christmas Letters, the Mac Meeting will be at Mirror Technology, Tom Gates as volunteered to do some games at the next Main Apple II Meeting (He'd like someone else to demo some games as well...) and the announcement about the Swap Meet on Saturday, the 13th.

Questions and Answers got rolling and covered a wide field of questions some involving Macs and Communications, some on new and refurbished equipment deals, and just general questions on the new AppleWorks 4.0.

The main part of the program was a

At that point, Mike Evangelist asked Joe Schnide to come up and do a demonstration on several pieces of hardware on the front table. Joe talked about the SmartStack and the Landscape Color Monitor. Both pretty impressive. Next Mike came forward and demonstrated the 21" color monitor with a Tornado video card and a PhotoShop daughter card along with a 2,700 dpi slide scanner called a CoolScan. The images that were generated even when expanded were impressive. That being the end of the demo, Greg Carlson arrived with the eDoms and other interested people went up front to lust over the hardware and contemplate financing the equipment.

I'd like to thank the personnel at Mirror Technology for providing cookies (chocolate chip, my favorite...) and soft drinks for the meeting. That was a very nice gesture on their part, as well as allowing all of us to enter the "Win a Newton" contest. (Don't even think of winning it, I took all the entries except mine when I left.) Mirror also announced that they are having a Warehouse Sale on 4 December from 8:00-11:00 AM and if any indication from the last sale is noteworthy, get there early!

It was an excellent meeting. See you at the next one at St. Louis Park Library on 9 December.

Tom 🍏

demonstration of Typeset, a TrueType font manager that works with Pointless from Westcode done by Erik Knopp. The program uses the font as an example in the pull down font menu. It also allows you to group certain fonts to use with specific programs or stylesheets. For the AppleWorks/SuperFonts user, the program will create a bitmapped font of any size that can be saved to disk and then used on an Apple IIe. It was a very interesting demo.

Pie SIG was at Perkins where the usual topics were abandoned (somewhat) in favor of Cholesterol, exercise and Health care. (Hillary may get some messages on InterNet...) Next month's meeting is also open to anyone else who would like to demonstrate their favorite game.

See you there...

Tom 🍏

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# MEMBER



# MUG NEWS SERVICE

TM



# Mini'app'les Board of Directors Meeting Minutes

October 7, 1993

Washburn Library, Minneapolis  
Presiding Officer: Tom Gates, Vice President

## Preliminary

### Attendance

Members: Tom Gates, Jacque Gay, David Laden, Erik L. Knopp, Al Mackler, Sam Goshorn, Roy Sorenson, Bob Demeules, Keven Kassulker.

Excused: Greg Carlson, Wade Brezina.

Guests: Dick Peterson, Hugh Johnson.  
Meeting called to order by Vice President Tom Gates at 7:08.

Adoption of Agenda: agenda passed.  
Sept. 2 meeting minutes approved with minor corrections.

**Treasurer's Report — Jacque Gay**  
see Treasurer's Report. Jacque said Gary Kjellberg is quitting the job of sending out eDOM coupons to newsletter contributors. She reported our mailing service (Eberhardt Services) referred a \$17 sorting penalty by the Post Office to our account. Jacque will resolve the bill with the mailer. She also reported on her efforts to get an invoice for the BBS phone bill, and will resolve this by year's end.

Treasurer's report approved.

### President's Report —

#### Greg Carlson (submitted in writing)

•Exchange newsletters have been pared down to 39 by the executive committee, and to control costs incoming exchange newsletters are now routed to the Membership Director for evaluation.

•The executive committee proposes these priorities for the club:

Newsletter advertisements and information should be increased.

Membership growth.

BBS expansion (by joining another BBS or expanding our own capability).

•The newsletter masthead should remain consistent, and information on inside front pages needs updating. Keven will update information on pages 2-3.

### Vice President's Report —

#### Tom Gates

Voice mail: quiet, nothing to report.

Swap meet (Sat., Nov. 13): no requests yet for tables, but he expects some when the October newsletter announcement is out.

'Extra' money: with the filming of Little Big League at the Metrodome this fall, organizations have a fund-raising opportunity. The producers need thousands of extras to fill the stands, and groups that can provide 30 people for a 12 hour shoot can earn \$1000. Tom has announced the information and dates on the BBS, and will coordinate depending on member response. (Each group needs 30 people, they don't all have to be members; family and friends are fine.)

### Membership Director's Report — Bob Demeules

see Membership Report. Reported 7 new and 16 renewal memberships @ \$25, and 1 sustaining renewal @ \$40.

### Software Director's Report — Sam Goshorn

Announced 3 new EDOM disks. Sales: \$44 mail order, \$5 Mac EDOMs for \$29 total EDOM income. 3 EDOM coupons were redeemed.

### Mac SIG Director's Report — Wade Brezina

not present; no report.

### Apple II SIG Director's Report — Erik Knopp

Sites and dates are scheduled through December for the Apple meetings except for the Apple novice group. Erik has sent a request for a demo software package and expects it to arrive soon.

### Publication Director — Keven Kassulker

October newsletter is a little late due to illness. Keven and Lance are working on producing an advertising brochure. Discussion as to where mail with ads and checks should be routed: consensus was to send all ad mail to the newsletter editor (Hugh), and he can route checks to the Treasurer.

### Operations and Resource Director — Al Mackler

The club Apple II+ and monitor have died. The Executive committee will review suggestion to try to sell it at the November swap meet.

### BBS Investigation — Dick Peterson

•The Science City BBS has new management: Dick is skeptical of their commitment. He suspects if they get the full Internet access they want, they will drop present system and go to a UNIX system.

•TCCN BBS: too costly.

•Gizmode BBS: terms are still under negotiation.

•Upgrade our current BBS: the present software could handle speeds up to 14,400, but we would need an accelerator for the Apple IIe.

•Upgrade our BBS with First Class BBS software: software cost \$295 for 250 BBS users and 2 phone line capability. First Class users include the Anoka Apple club, among others. We could hook up the club CD-ROM to the host machine and members could download files from it.

Discussion: Both Apple II and Mac users could use the First Class BBS, with Mac users getting a graphical interface (it even handles Windows users!). It would require a Mac as host machine, but either the club SE or solicitations for equipment donation might fulfill that need. Additional equipment goals include faster modems: it was suggested President Greg Carlson write the founder of MultiTech thanking them for their past modem donation and inform them we are interested in upgrading to a faster modem.

### Old Business

Membership List EDOM : the newsletter notice should run 3 times before EDOM released.

Adjournment moved, seconded and approved.

Next board meeting:

Thursday, November 4, 7pm at Penn Lake Library (88th and Penn), Bloomington.

Next Executive Committee meeting , October 21, 7:30 pm at Jacque's.

*prepared and submitted  
by Roy Sorenson, secretary. 🍏*



# News from the Software Director

## Virus Update:

Two new Macintosh viruses have appeared:

1. MBDF-B
2. CODE-1

To nab these new bugs, we have an update to Disinfectant, which is now version 3.3 (11/05/93). You will find the update on eDOM #815. If you already have #815 bring it in and swap it for the update.

### Descriptions of the viruses:

**Virus:** MBDF-B

**Damage:** minimal, but see below

**Spread:** probably limited

**Systems affected:** Apple Macintosh computers. The virus spreads on all types of Macs except Mac Plus systems and (perhaps) SE systems; it may be present on Mac Plus and SE systems and not spread, however.

MBDF-B is a new variant of the MBDF-A virus, which was first discovered in February 1992. It appears to be a slightly-modified MBDF-A, changed and released by a person or persons unknown. Like the original, this virus does not intentionally cause damage, but may spread quickly and widely, and can cause problems. Some existing Mac antiviral utilities detect this virus, but all utilities should be updated to properly recognize and handle it.

The virus does not necessarily exhibit any symptoms on infected systems. Some abnormal behavior has been reported in machines infected with MBDF-A, involving system crashes and malfunctions in various programs, which may possibly be traced to the virus. Some specific symptoms include:

- Infected Claris applications will indicate that they have been altered
- The "BeHierarchic" shareware program ceases to work correctly.
- Some programs will crash if something in the menu bar is selected with the mouse.

The MBDF-B virus should behave similarly and will spread under both System 6 and System 7.

**Virus:** CODE-1

**Damage:** Alters applications and system file; may rename hard disk; may crash system or damage some files. See below.  
**Spread:** possibly limited, but has potential to spread quickly

**Systems affected:** All Apple Macintosh computers, under Systems 6 and 7.

Several sites have reported instances

of a new Macintosh virus on their systems.

This virus spreads to application programs and the system file. Its only explicit action, other than spreading, is to rename the hard disk to "Trent Saburo" if the system is restarted on October 31 of any year. However, the virus changes several internal code pointers that may be set by various extensions and updates. This may lead to system failures, failures of applications to run correctly, and other problems. Under some conditions the virus may cause the system to crash.

The virus detected by some virus protection programs on some Macintosh machines (but no anti-virus program released prior to this date specifically recognizes this virus). This behavior depends on the nature of the hardware and software configuration of the infected machine.

Disinfectant 3.3 is a new release of the free Macintosh anti-viral utility.

Version 3.3 detects the new CODE 1 virus and a minor new strain of the MBDF virus. This version also includes a new color icon suite. If you don't see the new color icons on your color monitor, try rebuilding your desktop file.

Under System 7, the new version stores its preferences file inside the Preferences folder instead of inside the System folder proper. The first time you run the new version, it moves your old preferences file from the System folder into the Preferences folder for you.

The new version also fixes an error which caused Disinfectant to crash on very rare kinds of damaged resource files.

## Mac eDOM #888 – Power User Utilities

Copyright © 1993 Mini'apple's  
SEP 1993

Mac eDOM #888 – reviewed by Hugh Johnson. This disk contains drag-and-drop utilities, DA's, control panels, and even a ResEdit hack to help the original StyleWriter work like the StyleWriter II. Use at your own risk.

### Carpetbag 1.4

James W. Walker – ©1992, 1993 – all rights reserved – \$5.00

This control panel brings System 7.1-like features to users of earlier systems (albeit no earlier than System 6.0.5). It allows the user to specify one or more folders for fonts, sounds, or other

resources, which will load into the system at startup. In many ways, it's like Suitcase or MasterJuggler, but it takes much less RAM. If your system heap is swollen because of too many installed fonts, Carpetbag is for you. Even users of System 7.1 can benefit!

Version 1.4 adds the ability to postpone a folder from loading, so that its resources will be on standby.

The package includes other small extensions to assist with sounds, keyboard layouts, and outline font files. These are all very RAM-conservative.  
**Desktop Manager 2.0.1**

Apple Computer – ©Apple Computer, 1986-1988, – Free

If you normally run your Mac with System 7, but occasionally use a System 6 startup disk, you will be forced to sit on your hands watching the desktop file being rebuilt every time you switch back from System 6 to 7. This happens because the two systems use different database schemes to keep track of changes in the Finder, and when System 7 sees that changes have been made "behind its back", it has to rebuild its database from scratch.

Desktop Manager solves this problem by forcing the System 6 Finder to utilize System 7's scheme. Drop this small INIT in your System 6 system folder and your troubles will be a thing of the past.

### Dismount 1.2

Daniel Azuma, – Free

There is a little-known feature in System 6 which allows users to eject a disk and get rid of its icon with a single keystroke. If you type command-e, of course, the disk ejects, yet the dimmed icon remains, waiting to be trashed. But if you type command-e with the option key held down, and continue holding the option key for a moment, the disk is cleanly ejected, with no icon to cause problems later on. Unfortunately, Apple did not see fit to retain this feature in System 7. Apparently it was thought that the "Put away" command was good enough – even though "Put away" forces you to select an icon first.

This small INIT restores the old System 6 feature to System 7. In addition, it enhances the disk-eject Fkeys, forcing them to "Put away" the disk icon with no mousing around.

### Drop Info 2.0

Stephan Somogyi and Leonard Rosenthal, – Free



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This is a drag-and-drop utility for System 7, which allows you to set the Finder bits and change the type/creator code of any file. If you don't know what this means, you'd better not use the program. It's smaller, simpler, and more nonsense than many similar utilities.

**PowerAlias 1.0**

Andrew Anker – ©1992, A2Z Software – \$5.00

If you like to keep aliases of applications on your desktop simply to launch them by drag-and-dropping files on them, your desktop can get pretty cluttered with icons. PowerAlias allows you to use a single icon (the PowerAlias icon itself) to represent any one of several different programs, depending on which hotkey you hold down at launch time. It's fully user-configurable, simple and safe.

**ScrapIt DA 1.3**

John Holder – ©1992, all rights reserved, – \$15.00

This Scrapbook look-alike is what Apple's Scrapbook should have been. It allows you to keep multiple scrapbook files. It lets you name items and jump to them by selecting the name from a list. Includes ability to import and export Text, PICT, or Paint files, and even has a Find command for text strings. The window is resizable, pictures can be scaled to fit, and a marquee tool allows selecting and copying portions.

**Search Files 1.3**

Robert Morris – ©1993, – \$12

This is an update to a program released previously in version 1.0. It searches for text strings in files on your hard drive. Unlike some similar shareware offerings, Search Files works not only on plain TEXT filetypes, but also fully formatted files.

**Skinny**

James Bucanek – Free

Skinny is a font much like Geneva, but skinnier. It comes in only one point size: 9. It comes in only two styles: plain and italic. It comes only in bitmap form, and prints terribly. So what's it good for? It's a good font to use in your Finder Views preferences, especially if your Mac has a small screen and you don't like the sprawling space taken up by long filenames.

**SoundExtractor 1.3**

Alberto Ricci – ©1991-1992 – \$5.00

Let's say you've got a computer game with lots of neat little bells and whistles and booms and thuds. Drop it on this little gem, and suddenly all those sound resources appear as individual, double-clickable sound files in their own folder.

Can be configured to work with data forks, utilize stereo, etc.

**SpeedyFinder7 1.5.4**

Victor Tan – \$20.00

This is the last shareware version of a marvelous utility that has since gone commercial. It's like 7th-Heaven, or the System 7 Utility Pack – except that it does not modify the Finder or System file. Provides a number of customizing options. Some bugs have been reported, but they can be avoided by turning off the offending functions. You should have a good feel for what's going on in the Mac OS to use this control panel. Power users only!

**StyleWriter 1+ Hack 1.1**

Adam Schenker – portions ©Apple Computer, 1986-1992 – Free

As many of you know, the greyscale printer driver for the new StyleWriter II can be used with the original StyleWriter – but it's dangerous to do so. This file contains resources that you can paste into the new driver to make it safe for use with the old printer. You must have a good working knowledge of ResEdit. Power users only!

**SWIIPrintUseMonitor 1.0**

Steve Smith – Free

If you refill your StyleWriter ink cartridge, you may have discovered that one thing you should try not to do is to let it run dry. This utility silently monitors the number of pages printed and warns you when the ink cartridge is close to running out, so that you can refill it.

**Symbionts 2.2**

B. Kevin Hardman – \$20 Shareware

Symbionts is a cdev/INIT that manages your system extensions, in much the same simple way that Apple's own Extension Manager does. In addition, it displays how much RAM is used by each INIT, and has options for enhanced display of startup icons.

**Mac eDOM #889 – Pathways Demo**

Copyright © 1993 Mini'app'les  
SEP 1993

Mac eDOM #889 – reviewed by Roy Sorenson.

**Pathways Into Darkness Demo**

A maze-exploring game with beautiful subjective viewpoint, texture mapped color graphics. This free demo has several levels, the commercial game has many more.

*prepared and submitted  
by Sam Goshorn, Software Director* 🍏

# GOOD DEALS

by Ken Slingsby

This is part of the 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 of 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 to find 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!

In order to qualify for some of the items presented here, you MUST be a member of an Apple User Group. Be prepared to give your member number, and tell them that Mini'app'les sent you!

## DEALS

Fantastic prices on refurbished equipment. From time to time, the Apple User Group Connection offers refurbished equipment for sale at reduced prices. Based on past experiences, there is a chance that some equipment still remains and is currently available. Call their hotline to confirm.

Here's the November Price List for the User Group Member Purchase Program! Order soon and spread the word to your

fellow User Group members!

Order forms available in the User Group Bulletin Board. Here's the pathway if you don't know how to get there. Community Connection

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Confidential Price List Special Holiday Promotion November 1, 1993  
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M1383LL/A Performa 600 5/160 w/ CD and 14" RGB Monitor - \$1479.00 - Lowest cost CD color Mac available on the market! Order early!  
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M2046LL/A Stylewriter II - \$229.00 - Ideal for great quality low end printing!  
M1174LL/A PowerBook 170 4/40 w/o modem - \$1299.00 - Great machine for folks who are on the go! Order early! Quantities still available from October promotion, while quantities last!  
M1686LL/A Macintosh Performa 200 - \$549.00 - Perfect entry level computer!

The Holiday Promotion Performa Products do include ClarisWorks 1.0, At Ease 1.0 and System 7.1P3 (this is specifically for Performa products, works just like 7.1 but ensures that first time folks have a good experience when they first use the machine). System software for the Performa 200 is not 7.1P3 but 7.01P. The other Performa products such as the 405, 450 and 600CD are 7.1P3. In addition, the Performa 600 CD also comes with 8 CDs such as Alice to Ocean, Encyclopedia, Nautilus, Mozart and the rest Apple CDs.

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November Promotion orders only taken from November 1 thru December 15. FIRST COME FIRST SERVED, WHILE QUANTITIES LAST. SHIPMENTS PLACED THE WEEK OF DECEMBER 15.

## Refurbished Products

Refurbished product is equipment that has been returned to Apple by existing resellers. It may have been returned for any of a number of reasons, including discontinuation of that model, a return by a customer, or a malfunction in the product. All returns are checked for proper function, repaired if necessary, repackaged, and marked "refurbished" on the box.

## Network Security Guard

Network Security Guard 2.0, is an AppleTalk based utility that will scan multiple zones for the presence of Macintosh servers and compile reports on the security of those servers. This utility was designed as a tool to combat the alarming rise in software piracy and as a safeguard against accidental sharing of confidential materials. It may also be used to explore an AppleTalk network to uncover all available servers and files.

Network Security Guard is available in a 3, 10, and unlimited zone versions. Prices are \$89, \$169, and \$219 respectively. Trial versions are available for downloading on AppleLink, America OnLine, Compuserve, and Genie. It has also been uploaded to many places on the Internet and will be posted soon.

Requirements: An AppleTalk network and a Macintosh Plus or better running version 6.0.5 or better.

For further information contact MRMac at: AppleLink: MRMac AOL:



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Leslie Burcham, MR Mac Software

### Global Village Offer

[The next item is not a 'Deal' as such but could be. We need someone to collect orders and interface with the vendor. These are 9600/14.4 fax/modems. They want a single point of contact with each User Group. Any volunteers?]

Help set up a GREAT deal with Global Village whereby members of Mini'app'les will be able to purchase PowerPort and TelePort Gold fax/modems for \$199.00 + \$15.00 shipping and handling.

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## PRESS RELEASES

### Music Contest

1 World Software Wizards (1WSW) and OmniSoft Sound Research LAB (OSRL) invite you to enter our 'Noise Tracker GS' - Music Composition Contest.

Deadline for all entries has been extended for 1 month to December 15, 1993. (Winner will be notified by phone on January 5, 1993.)

One winner will be selected from all entries received. The prize is a SoundMeister Stereo Amplifier/Digitizer card and the DigitalSession Waveform Capture/Editing Package, donated by Mr. D. Proni, from ECON Technologies, Inc., plus a set of high-quality, high-intensity, (custom built) Professional

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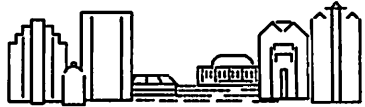
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Studio Design Stereo (full sized) Digital Headphones, donated from the 1WSW's.

The rules are simple. Use your own personal skills with the Noise Tracker GS program, any version, to create your music composition contest entry.

You can use any style and any music, with any type of sound /samples, saved in either of Noise Tracker GS' file formats.

All entries must be received by mail, no later than November 15, 1993. The winning entry will be used as the INTROMUSIC, for the commercial release of Noise Tracker GS v2.0.

Send your music contest entries to: C. Turley Executive Coordinator 1 World Software Wizards P.O. Box 215, Brisbane, CA. 94005-0215 USA

### Call For Entries for Exhibition of Computer Art

The New York MacUsers' Group (NYMUG) is now distributing a Call For Entries for its 1994 Macxibition, a juried exhibition of computer-generated artwork.

Exhibition organizers are enthusiastic in their vision of the show. "We are looking for the very best, wildest, most exciting work being done on the Mac. With the proliferation of powerful easy-to-use computers in the art world there is a wider variety of perspectives and styles represented now more than ever before. We want to show the cutting-edge work being done by the new bright lights from the 'computer art' world."

Organizers are soliciting works created on the Macintosh computer to be submitted in electronic form only. Winning entries will be displayed electronically, on one large monitor in a darkened space. "Macxibition 1994 will be an exciting event emphasizing the digital character of the medium in addition to the outstanding work, all in a dramatic, all-electronic exhibition."

The show will open on February 26th at the NYMUG MacFair '94 trade show in Manhattan at the New York Marriott Marquis Hotel and continue at NYMUG's Gallery Space on Broadway at 18th Street.

Call For Entries forms may be obtained in person during regular business hours at the New York MacUsers' Group, 873 Broadway, Suite 501, New York, NY 10003; tele 212-473-1600, or by sending a self-addressed, stamped envelope, Attn: Macxibition.

Bulk quantities are available for schools and other large groups; call for details.

For info regarding Macxibition, contact Mark Woytovich at 212-473-1600 For MacFair '94, contact Ed Cap at 212-473-1609

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# Initial Comparisons:

## Apple Newton MessagePad and Sharp ExpertPad PI-7000

by Conrado Bondoc

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I have had the opportunity to use and experiment with the Apple Newton MessagePad for six weeks. During that time, I have heavily used most, if not all, of the features which have been available on the MessagePad.

Overall, I've found the MessagePad quite useful within my day-to-day life. The handwriting recognition has been comparatively accurate (for words with which its dictionaries are familiar); the Names app has been very handy when I need to contact people—and to record new contacts; the Dates app, including (and maybe especially) the Todo list, has helped organize my everyday life. Fax transmissions from the MessagePad, while not fully customizable, has been useful enough (for my needs) for its size. And despite the current problems with the import/export of data to/from the MessagePad's Names app, data portability with the Sharp Wizard line has also been useful: especially the ability to transfer perfectly the items between both units' Todo lists.

As is widely known, Apple has licensed its Newton technology to OEMs. The first such licensed product is Sharp's entry into the "personal digital assistant" (PDA) foray: the Sharp ExpertPad PI-7000. Intended to be a functional equivalent of the Apple Newton MessagePad, I won't delve into "how" each function of the Sharp ExpertPad works, unless there is a noticeable difference in the two units.

### General Comparison

The Sharp ExpertPad is powered by the same 32-bit microprocessor as its Apple counterpart: an ARM 610 processor running at 20 MHz. And again like its Apple cousin, the ExpertPad has 4 Mb ROM and 640 Kb RAM—of which 190 Kb is available for user data. Its interfaces include an RS-422 serial port (with

a mini DIN-8 connector); an infrared port at the front, compatible with the Apple Newton MessagePad as well as the Sharp OZ-9600/9600II Wizard; and one PCMCIA Type II slot at the top of the unit. Power is supplied through 4 AAA batteries, an optional AC adapter, or an optional rechargeable nickel-cadmium battery pack.

Its LCD screen is also identical to the Apple MessagePad, primarily because the screen was manufactured by Sharp. It's a low-power LCD screen with a resolution of 336 x 240 pixels.

In simpler terms, an Apple Newton MessagePad "clone".

The "cosmetic" differences are very noticeable. First, unlike the Apple MessagePad, the Sharp ExpertPad has a fold-away lid which protects its LCD screen. The cover folds away to the right, and behind, the ExpertPad. Second, the material used for the casing is identical to the Sharp OZ-8x00 Wizard line: a black pearl-pattern, smooth plastic. Third, if you're an Apple Newton MessagePad user and can't find the pen...that's because you're looking in the wrong place. Sharp has stowed its pen to the immediate right of the LCD screen in a recessed holder.

Sharp has made excellent operational use of its fold-away cover. On the underside of the cover is a chart describing general text manipulation "gestures": "scrubbing" (erasing); horizontal/vertical space insertion; item selection; item movement; item copying; and letter/word lower/upper case change.

### Compatibility: Data Transfer

As I've previously mentioned, the Sharp ExpertPad is, short of the cosmetic differences, an Apple MessagePad clone. So simply put, data transfer between the ExpertPad and the MessagePad was perfect.

Through the infrared interface, you simply point the IR ports of each unit at each other (no further away than three feet). On the sending unit, you select the note, name, appointment, or todo item, then tap the "Action" icon, and select "Beam". On the receiving unit, you can either set up the unit to receive beams automatically (which uses up battery power) or tap the Outbox icon in the Extras drawer.

Since data transferred perfectly, what does that mean to the end-user? That means if you plan on sharing data on your Newton machine with others, either the Apple or the Sharp choice is a safe one, since in data communications, both work perfectly with each other.

The extent to which a hardware transfer is possible has not been tested, since the Newton Connection Kits (and from the ExpertPad's documentation, a Sharp version of the software is available) have not been officially released.

### Compatibility: Peripherals

1. fax modem
2. PCMCIA cards
3. AC adapter

Peripheral sharing, with some exceptions, is no problem at all. The design of the Sharp ExpertPad, in terms of port layout, is almost identical to those on Apple's MessagePad.

Both use the mini DIN-8 serial port. I tried this using the Apple MessagePad Fax Modem (which came with the MessagePad Communications System). Fax transmissions went perfectly as expected. Data communications could not be tested at this time, since currently there is no Newton communications software to connect to online services.

The PCMCIA interface on the Sharp ExpertPad does recognize both the 1 Mb SRAM (static RAM) card and the 2 Mb Flash RAM card currently available from Apple. I easily performed data transfers, full unit backups and restores, and OS ROM upgrades using these cards. Most importantly, the Sharp ExpertPad was able to recognize cards which were formatted by the Apple MessagePad (and vice versa). Although I won't be able to test it until the product ships, I would assume that Apple's forthcoming Messaging Card—which allows a Newton device to receive alphanumeric pages—will work on the Sharp ExpertPad.

Since both the Sharp and Apple Newton devices use a passive pen technology, the pen stylus of either unit will work with the other. So will a real pen, a toothpick, or a paper clip (although the latter three would not be recommended for day-to-day use).

One peripheral which is incompatible between the Sharp ExpertPad and the Apple MessagePad is the AC adapter.



Apple packages an AC adapter with all MessagePad units; Sharp makes the adapter an option at approx. \$39. I found the fact that the AC adapters are incompatible to be very interesting; Sharp manufactures the hardware for both the Sharp and Apple Newton devices. The sole incompatibility is the plastic casing around the plug to the unit. Apple uses a "half-cylinder" type casing, while Sharp uses a smaller full cylinder casing. And the AC port on the Apple device is flush with the case, while Sharp has recessed the AC port about 1/4 inch from the case. What that means is a user cannot plug an Apple AC adapter into the Sharp ExpertPad. However, an Apple MessagePad can use either; since the electrical specifications, overall design, and even the manufacturer of both adapters are the same.

Another type of Apple accessory which cannot be used with the Sharp ExpertPad are the carrying cases. In order to secure the unit, Apple designed its Newton MessagePad with a retaining bracket at the top, and a four-prong docking hole in the back. Since the Sharp ExpertPad has a covers that fold away to the back, this obviates these Apple connections. In other words, there is no way to secure a Sharp ExpertPad to an Apple MessagePad carrying case.

#### **Compatibility: software**

The Sharp ExpertPad utilizes the same operating system (Newton OS) as the Apple Newton MessagePad. Although I have not had an opportunity to validate this assumption through many real tests, it appears that the Sharp ExpertPad will run any Newton software which can run on the Apple MessagePad.

The only "real" test of this was my test of ROM upgrade compatibility. Apple had, in the interim, made available a ROM upgrade Version 1.03. This ROM version was what had shipped with the Sharp ExpertPad. However, in order to test this compatibility, I had intentionally "bombed" the 1.03 ROM upgrade from the ExpertPad. This action rendered a unit with ROM Version 1.00: the OS version in the unit's "masked ROM." I had then loaded the ROM 1.03 patch from Apple into the Sharp ExpertPad. Everything which is part of this upgrade, including the on-screen reset option, works. In the future, I will test the Sharp compatibility with the next ROM upgrade, Version 1.04.

#### **Overall**

From my testing, the Sharp ExpertPad appears to provide \*all\* the abilities and functionality of its Apple sibling. That's not too difficult to imagine, since—as

previously mentioned—Sharp manufactured both the ExpertPad and the Apple MessagePad; Apple wrote the operating system for both units. But again, there are differences; some which make me prefer the ExpertPad, some which make me prefer the Apple MessagePad:

#### **What I like about the ExpertPad:**

1. The design of the ExpertPad: the case is much sleeker. Unlike the Apple MessagePad, the Sharp unit has much more rounded corners; whereas

Continued on page 16

# RISCy Future

by Dana Blankenhorn

11/16/93 LAS VEGAS, NEVADA, U.S.A., 1993 NOV 16 (NB) — In his inaugural Comdex address, Apple Chairman Michael Spindler promised a RISC (reduced instruction-set computer) machine on every desk, a Newton for every pocket, and a new attitude toward price-performance. Sounding like a successful politician now charged with making his plans a reality, Spindler said, "We won't price technology at a premium, never again. We'll use technology to drive volume, and be price-performance leaders," he said. "This is what I promise: it does more, it costs less, it fits in, it stands out. It's just that simple."

As Spindler spoke, he demonstrated his vision using a number of Apple computers, including what he called a "low-end" PowerPC-driven Macintosh which seemed to operate faster than the Pentium-based PC next to it. But he downplayed that apparent speed advantage. "The importance is not speeds and feeds, it's making RISC the volume mainstay on the desktop," said Spindler, who promised very aggressive pricing for PowerPC-based Macs when they are rolled-out early next year.

Spindler said his vision for Apple is to make it, "The customer advocacy company in this industry." That means Apple will offer comprehensive "solutions," spread multimedia everywhere, and put Apple technology onto many different platforms, running multiple operating systems, he said.

Spindler told most of his story through demonstrations of new media and new or pending products. His themes were managing information, mobility, and the new price-perfor-

mance paradigm of moving Apple's entire product line to the PowerPC RISC chip.

He demonstrated AppleSearch going through many databases and presenting stories on NAFTA (North American Free Trade Agreement) in order of relevance. He said search software should be an agent that eliminates "SQL (structured query language), boolean structures, and things that are non-human." Spindler said that idea should then be extended to use with visual databases. Spindler called this the "re-purposing" of information. The aim is not just to make it digital but to make it usable.

He demonstrated two CD ROMs linked to phone lines for shopping — one for clothes and one for software. This will not only make catalog shopping more immediate and exciting, he said, but will help small software vendors reach their market and end software piracy.

Spindler also demonstrated mobility in a demonstration linking a Lotus Organizer database to a Newton database, synchronizing the two so they became identical in a few moments. "This will change the nature of communication," he promised. The Newton Connection demonstrated in this section of the speech was created through an alliance with Traveling Software Inc., makers of Laplink.

Mostly, though, Spindler's talk centered on changing the nature of Apple, from a high-cost technology company to a mass-market customer advocate. Making that vision a market reality is the challenge of his new Administration.

submitted by Yosemite Sam 🍏

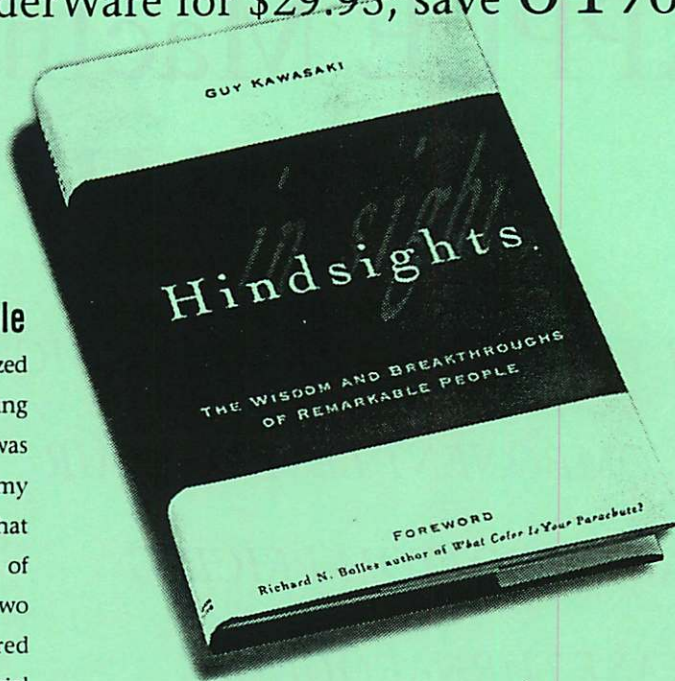


# User Group

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## Hindsights—The Wisdom and Breakthroughs of Remarkable People

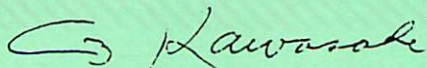
When I got to be thirty-eight years old, I realized that half my life was over, and I started reflecting on the lessons I had learned. Initially my idea was to write a book of my own hindsights, but my wife quickly burst my bubble: "Who cares what your hindsights are? Go get the hindsights of remarkable people." So I did. ☺ I spent two years interviewing more than one hundred people from varied economic, social, and racial backgrounds. I used over ten miles of tape and burned out three transcribers and three editors in the process. The interviewees include musician Herbie Hancock, Apple co-founder Steve Wozniak, entrepreneur Mary Kay, management guru Tom Peters, supermodel Rene Russo, and football coach Bill Walsh. ☺ Beyond Words Publishing—a true Macintosh Way kind of company—and I now bring them to you in a book called *Hindsights: The Wisdom and Breakthroughs of Remarkable People*. It is the book I wish I could have read when I started reflecting on that old cliché: The meaning of life.



## UnderWare—The Fun of a Screen Saver While You Work

Why is a serious book like *Hindsights* bundled with a product like UnderWare? Because if I learned anything from writing this book, it's that you have to make time for fun in your life—even when using a computer. From its very first boot, Macintosh was a fun computer, and with hindsight, this was one of its keys to success. ☺ I thought I had seen everything that could make Macintosh fun to use. Then I met "four guys in a garage," and they showed me UnderWare. It's the wackiest, hottest, and wildest screen entertainment utility you'll ever see. It combines screen saver, desktop animation, and desktop-pattern customization functionality. ☺ Call now and get a screaming deal on *Hindsights* and UnderWare, because nowhere is it written in Stone (or Palatino or Garamond) that using a computer can't be fun.

Thanks, and have a great holiday season.



GUY KAWASAKI

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The suggested retail prices of *Hindsights* (\$22.95) and UnderWare (\$59.95) total \$82.90. Now you can get both for only \$29.95—a 64% discount. You can also order only *Hindsights* for \$19.95—a 13% discount.

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# The History of the Apple II

## part 8

APPLE II HISTORY  
(PART 8 – THE APPLE IIC)  
[v1.1 :: 12 Dec 91]

*Compiled and written by Steven  
Weyhrich*

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### PRELUDE: STEVE JOBS AND MACINTOSH

Rewind back to 1982, before the Apple IIe was introduced, and adjust the tuning on our Flux Capacitor-enhanced peripheral card. Before dealing specifically with the smallest Apple II, the IIC, it would help to take an aside and look at some other events happening at Apple Computers, Inc. at this time that affected its development.

If you recall, the Lisa project was designated as the computer that was considered to be the future of Apple. From a series of parallel processors and a “bit slicing” architecture, to a focus on the Motorola 68000 microprocessor as the controller of this advanced computer, the project had been progressing very slowly. It was begun back in 1979 with the same focus as any other Apple product: “Both [Apple III and Lisa] had been conceived of as nifty pieces of hardware rather than as products to appeal to a specific market: At Apple you designed a box and people bought it because it was neat, not because any thought had been given to what it would do for them.”<sup>1</sup> However, a significant change occurred in 1979 when Xerox bought a large chunk of Apple stock. In return for being allowed this stock purchase, Xerox allowed some of their research ideas to be used in designing an office computer. After Steve Jobs visited the Xerox Palo Alto Research Center in 1979 and saw the user-interface on their Alto computer—icons, graphics-based text characters, overlapping windows, and a pointing device called a “mouse”—the Lisa took on a distinct personality that made it possible to become the ultra-computer Apple needed. This was important, since by 1981 Apple executives were getting sweaty palms worrying about the future. The Apple III was clearly NOT taking

the business world by storm.

Unfortunately for Jobs, who was excited about using the Xerox technology in designing a new computer, he was excluded from the Lisa project. After the problems associated with the introduction of the Apple III, a reorganization in 1980 moved the Apple II and III into one division, and the Lisa into another. Lisa was put under the control of John Couch, and Jobs was not allowed to participate. Since Lisa had been taken away, Jobs in 1981 began to assemble a team to “out-Lisa the Lisa” by creating a smaller, less expensive computer that would do the same thing. Jef Raskin, the engineer that helped design it, called it Macintosh.

While the Macintosh developed as a pirate project with a smaller team and less money than Lisa, the concept of an “appliance” computer also emerged. Instead of those messy slots and a lid that popped off (which made the Apple II so popular with the hacker community), Jobs’ team was sold on the idea that all necessary features should simply be built-in and the case sealed. It would be something that you just plugged in, turned on, and started using. With the Xerox Alto mouse/icon/window interface it would not only be easy to set up and turn on, but also easy to use.

### THE APPLE IIC: BEGINNINGS

What was happening with the Apple II during this time? The efforts to make it less expensive to build were progressing, and the Apple IIe was in the formative stages. In the summer of 1981 someone proposed a portable Apple II, a book-sized computer. It wasn’t until Steve Jobs became interested in it as engineering challenge, well after Macintosh was under way, that anything came of the idea:

“...one day late in ’82, Paul Dali showed him [Jobs] a photograph of a Toshiba portable and they started fooling around with the idea of an Apple II that would look like the Toshiba but come with a built-in disk drive. They took out a IIe circuit board and a disk drive and a keyboard and played with them until they arrived at a promising configuration—keyboard in front, disk drive in

back, circuit board in between. What got Jobs excited about this idea was the engineering difficulty of squeezing it all into a package not much bigger than a notebook. And a machine so small wouldn’t have the expandability that characterized all the other II’s. Like Macintosh, it could be taken out of the box, plugged in, and put to work—no extra parts to buy, no cables to figure out. It was the II reinvented as an appliance.”<sup>2</sup>

As with all Apple projects, the IIC went by various code names during its development, for the sake of internal communications and to keep outsiders from knowing what was going on. The various names used included VLC (Very Low Cost), Yoda, ET, IIB (for “Book”), and Teddy (which stood for “Testing Every Day”). Also, following a long standing tradition at Apple, some of the code names assigned to the project at various times were names of children of people at Apple: Chels, Jason, Lolly, Sherry, and Zelda. These names persist in the source code for the firmware for the IIC as later printed in the technical reference manual; the serial port driver is called a “Lolly” driver.<sup>3</sup>

During the time the IIC was under development, Apple was working on a change in the look of their products. They planned a more European styling, and a color scheme called “Snow White”. The IIC would be the first product with the new appearance and color.

### HARDWARE

As mentioned earlier, the IIC had its origins while the IIe project was going on. When Steve Jobs became involved, he felt they should continue with the open IIe as they had planned, but do this other Apple II as a product “focused” to a specific group of customers, primarily new users. Originally he had planned a closed Apple II that had a built-in mouse port, one serial port, and some other features. What they ended up with at that point was just a computer and a keyboard. Walt Broedner, the engineer who pushed for the Apple IIe to be produced, used some of their previous work with custom IC’s for the disk controller and combined both projects together to make the IIC.<sup>4</sup>

Although he was told it was not be



possible, Jobs strongly pushed for the mouse in this closed Apple II to be compatible with the Macintosh mouse—and they managed to make it work.<sup>2</sup> Regarding the plans for a single serial port, however, Apple's marketing people pointed out to Jobs that many people were going to want both a printer AND a modem, so they added a second port to the original design. They decided to use serial ports on the IIc instead of parallel ports for a couple of reasons. First, the socket for a serial port is smaller than a parallel port, and it would fit better onto a small box like the IIc. Also, Apple's general direction at the time was to get consistency in its hardware, and they had decided to make everything they made use a serial interface.<sup>4</sup>

They began work on the Apple IIc in earnest right after the IIe was finished. Because they were trying to squeeze an Apple IIe with 128K, 80 column routines, two serial cards, disk controller, and a mouse card into an 11 by 12-inch case, the design challenges were greater than with the IIe (recall that this was what appealed to Steve Jobs). The size of the case was determined by the decision to make it able to fit into a standard-sized briefcase.<sup>4</sup>

Apple also had the international market in mind when they designed the IIc. A special chip containing the keyboard map could easily be changed depending on the country where the computer would be sold, to make it consistent with regional keyboard differences. The external pushbutton would switch between the two different keyboards, between a UK and German layout, for example. In the U.S. version of the IIc it switched from a standard Sholes keyboard (also known as "QWERTY") to a Dvorak keyboard (which allows faster touch typing). The decision for the foreign keyboards came first; the added bonus for American versions of getting Dvorak came as an extra bonus, to save having two different cases (one for US and one for foreign versions).<sup>4</sup>

One problem in creating such a compact computer was dealing with heat production. Apple engineers wanted it to be able to function in environmental temperatures up to 40 degrees Celsius (about 104 degrees Fahrenheit). One article published at the time of its introduction mentioned jokingly that the designers wanted to make the IIc capable of doing a long disk sort (sorting data in a disk file) while on the beach in Florida in the summer! Their major obstacle was the heat generated by the internal 5.25 disk drive. They tried some special low power

drives (which would have been much more expensive), but they didn't overcome the heat problem even with them. Eventually they tried a complicated venting scheme that was designed by drilling holes into a case and putting it into an oven to let them measure internal temperatures. The engineers were surprised when they found that the normal power disk drive worked and generated less overall heat within the case than the special low power drive did. The only explanation they could come up with was that the normal power drive generated enough heat to cause it to rise, which pulled cool air in through the vents by convection.<sup>4</sup>

#### FIRMWARE

Since they used the newer 65c02 chip, which ran cooler and had 27 additional commands that could be used by assembly language programs, Apple's programmers had some new power to use in firmware design. Such power was needed to squeeze in all the firmware code for the IIe, plus code for the disk controller, serial cards, mouse card, and 80 column card into 16K of ROM space.

The firmware for the IIc was written by Ernie Beernick, Rich Williams, and James Huston. They designed it to look (to a software application program) exactly like a IIe with an Apple Super Serial Card in slots 1 and 2, an 80-column card in slot 3, a mouse in slot 4, and a Disk II in slot 6 (though there were NO slots in hardware). Since these first IIc's had nothing emulated in slot 5, the firmware authors immortalized themselves by making a "ghost" peripheral appear to be present in that slot. Entering this Applesoft program:

```
100 IN#5 : INPUT A$ : PRINT A$
and running it would print the names of the authors. (They used a decoding scheme to extract the names, character by character, so a simple ASCII scan of the ROM would not show their little trick). This "feature" had to be removed in later revisions of the IIc ROM, because an actual disk device was added then to slot 5.4,5
```

What about the unassigned slot 7? Here they put a small piece of code to allow booting from the external 5.25 drive by typing "PR#7" from Applesoft.

The programmers fixed some known bugs in the IIe ROMs, and added 32 graphics characters they called MouseText. To make MouseText fit they removed the ability to use flashing characters (when in 80 column mode) and replaced those characters with MouseText. Apple veteran Bruce Tognazzini designed the MouseText

characters, which included a picture of a running man (perhaps to suggest "running" a program). He later sent a letter to Call-A.P.P.L.E. magazine to warn programmers that the Running Man characters (assigned to "F" and "G") had been determined to be unnecessary and would probably be replaced eventually. (This did eventually happen, but not with the IIc).

Beernick, Williams, and Huston also made some minor changes to the Applesoft part of the ROM. They fixed things so Applesoft commands could be entered in lowercase (and translated into uppercase). They removed the Applesoft commands that were specific to the obsolete cassette interface (which was absent in the IIc) and made Applesoft more compatible with 80 columns.<sup>4,6</sup> They did NOT go so far as to make any major changes in Applesoft to use the newer 65c02 commands and therefore fix known bugs or add features to this seven year old language. Their reluctance stemmed from the fact that historically many BASIC programs had made use of undocumented assembly language entry points in Applesoft, and any changes they would make here made it more likely that older programs would crash unexpectedly.<sup>4</sup>

#### PRODUCT INTRODUCTION

Apple's introduction of the new IIc came at an "event" at the Moscone Center in downtown San Francisco on April 24th, 1984. It was entitled "Apple II Forever", and was described as "part revival meeting, part sermon, part roundtable discussion, part pagan rite, and part county fair". Apple's objectives here were to introduce the Apple IIc, describe how it fit into the company's marketing strategy, show off new software that was made to work with the new computer, and emphasize that Apple was still firmly behind the Apple II line of computers. (Steve Jobs also took some of the time to report on the sales of the Macintosh in its first 100 days).<sup>7</sup>

One of the interesting things they did at the "Apple II Forever" event was the actual introduction of the IIc. Giant video screens were used to show previews of Apple's TV commercials for the IIc, as well as slides and images of the speakers, including Wozniak, Jobs, and Apple's new president, John Sculley. Sculley spoke of "sharing power", and then demonstrated that in a unique way: "After holding up the tiny IIc for everyone to see and eliciting a response that they'd like to see it better, Sculley ordered the house lights on. As the light burst forth, nearly every fifth person in

the audience stood up, waving high a IIC. As startled dealers cheered uproariously, the Apple plants passed the IICs to them. Within seconds of its introduction, more than a thousand Apple dealers had a production-line IIC in their hands."<sup>7</sup>

When Jobs gave his report on the Mac, it revealed some interesting statistics. He told them that the first industry standard was the Apple II, which sold fifty thousand machines in two and a half years. The second standard was the IBM PC, which sold the same amount in eight months. Macintosh had done sold its fifty thousand machines only 74 days after its introduction. Although sales would not be nearly as good, Apple took orders that day for fifty thousand Apple IIC's in just over seven HOURS.

At the "Apple II Forever" event, they also had a general software exhibition and a setup called the Apple II Museum. This contained Apple memorabilia, and included Woz's original Apple I, and a reproduction of Steve Jobs' garage where it was built. Although not on the schedule, "Apple II Forever" included an early-afternoon earthquake centered south of San Jose that measured 6.2 on the Richter scale.

#### **SUCCESS?**

Their original goal had been to sell the IIC for \$995. As production costs turned out, they found that they couldn't hit that price, so they came up with \$1,295, balancing the decision with the number of people who were predicted to buy the optional Monitor IIC or an external Disk IIC drive.

The only problem was that although the IIC was a technological breakthrough in miniaturization, customers at that time didn't value smallness. They viewed something that was too small as also being cheap and lacking power. Although the Apple IIC was equivalent to a IIE loaded with extra memory, a disk drive, two serial cards, and a mouse card, most customers seemed to want the more expandable IIE. Apple marketing went to much effort to make the IIC attractive, but it didn't sell as well as the IIE. Just as IBM overestimated the market when producing its PCjr (which eventually failed and was discontinued), so did Apple when producing the IIC (and the original Macintosh).<sup>7</sup>

#### **OVERCOMING LIMITATIONS**

Although the IIC did not have any slots for plugging in peripheral cards that had traditionally been used in the Apple II, the ports that were built-in had the capability to do much of what the slots had often been used for. The serial ports were compatible with any serial device; this

included common ones such as printers and modems, and uncommon ones like security controllers, clocks, and speech synthesizers. Some third party companies also supplied serial-to-parallel converters for IIC owners who wanted to use parallel printers made by Epson, Okidata, and C. Itoh that were popular elsewhere in the computer world.

There was, of course, the AppleMouse IIC sold by Apple. It plugged into the game port on the IIC. Also available were two types of touch tablets: The Power Pad (Chalkboard) and Koala Pad (Koala Technologies), though the latter sold best. The Koala pad would appear to a program to be the same as a joystick, but could not emulate the mouse.<sup>8</sup>

The disk port on the original IIC was only designed to control an external 5.25 disk drive. Apple sold the Disk IIC for \$329, and other companies later sold similar drives for less. Despite this firmware limitation, Quark Engineering released a 10 MB Winchester hard drive called the QC10 that would work with this disk port, and was the first hard disk available for the IIC.<sup>8</sup>

The video port worked with a standard monitor, but had access to all video signals. Included with the original IIC was an RF modulator that allowed it to be connected to a standard television (for color games). An RGB adapter box attached to the video port would allow a true RGB monitor to be attached, giving color and sharp, readable 80 column text on the same monitor. Apple also sold a flat-panel liquid crystal display for the IIC that attached to this video port. It was capable of 80 columns by 24 lines, as well as double hi-res graphics. Apple's price was about \$600, but it looked somewhat "squashed" vertically, and did not sell well. Another company marketed a better flat panel liquid crystal display called the C-Vue.

With a battery attached to the 12V input, and a liquid crystal display, the IIC could be made into a truly portable computer.<sup>8</sup>

#### **ENHANCEMENTS**

The earliest change made available for the IIC was a motherboard swap that fixed a hardware bug causing some non-Apple modems to fail if used at 1200 baud. This modification was made only if the owner could show they needed the change (that is, they owned a 1200 baud modem that wouldn't work).

The first significant upgrade available for Apple IIC owners was also available as a free upgrade for previous owners. Changes were made to the disk port firmware to accommodate the new 800K

UniDisk 3.5. Using Apple's Protocol Converter scheme (later called "Smartport"), this new IIC could handle four 3.5 disk drives, or three 3.5 disk drives and one 5.25 drive.

With the UniDisk 3.5 upgrade, the internal 16K ROM was increased in size to a 32K ROM that was bank-switched to make space for the extra code necessary to implement the Smartport. Also added were additional serial port commands to improve compatibility with the older Super Serial Card. The Mini-Assembler, absent from the Apple II ROMs since the days of the original Integer BASIC Apple II, was added back in, with support for the extra commands provided by the newer 65c02 processor (the disassembler had always supported those new commands). The STEP and TRACE Monitor commands made a comeback, having also been a casualty of the 1979 Autostart ROM for the Apple II Plus. Lastly, the new IIC ROMs included a built-in diagnostic program to do limited testing of the computer for internal failures, and had improved handling of interrupts.<sup>9</sup>

The next Apple IIC upgrade was known as the Memory Expansion Apple IIC. This came as a response to requests for the ability to add extra memory to the IIC. Applied Engineering had already produced a Z-80 coprocessor for the IIC (to allow access to CP/M software), and an expanded memory card, up to 1 MB, which would either act as a RAMdisk for ordinary ProDOS applications, or as extra memory for the AppleWorks desktop (through a special patching program). Seeing the popularity of this, Apple released this third version of the IIC ROMs and motherboard, this time with a RAM expansion slot included. The Apple IIC Memory Expansion Card could take up to 1 MB of RAM, in 256K increments. The firmware in the new ROMs made it work as a RAMdisk automatically recognized by ProDOS and following the Smartport protocol that had been designed for the UniDisk 3.5. Apple even included code in the new ROM to patch DOS 3.3 so it could be used as a RAMdisk with that system (400K maximum size), and did the same with Pascal v1.3. Also, because this firmware was in the motherboard ROM, ANY company could make memory cards to attach to this version of the IIC.

Other changes made in this version of the IIC ROM included moving the mouse firmware from slot 4 to slot 7, and putting the RAMdisk firmware into slot 4. Also fixed was a bug that caused a write-protected 3.5 disk to be incorrectly



identified with early versions of the UniDisk 3.5.<sup>9, 10</sup>

Since code as complex as ROM firmware rarely makes it out the door without at least one bug, Apple had to make one final improvement to the IIC ROM. The Revised Memory Expansion Apple IIC (ROM version 4) included changes which made it easier to identify if no RAM chips had been installed on the memory card. A problem with keyboard buffering was also fixed. Lastly, this version of the ROM resolved an obscure bug in the slot 2 firmware that was supposed to allow the IIC to function as a simple terminal (with a modem attached to that port). The previous version of the IIC ROM had been assembled with a couple of wrong addresses in the code, and the terminal mode produced garbage. Few people used this feature, so it was not noticeable to most users, and the corrected ROM chip was therefore not as quickly available as the original Memory Expansion upgrade.

## NEXT INSTALLMENT: Disk Evolution / The Apple IIC Plus

### NOTES

- 1 Rose, Frank. WEST OF EDEN: THE END OF INNOCENCE AT APPLE COMPUTER, 1989, p. 48.
- 2 Rose, Frank. WEST OF EDEN: THE END OF INNOCENCE AT APPLE COMPUTER, 1989, pp. 110-112.
- 3 Hogan, Thom. "Apple: The First Ten Years", A+ MAGAZINE, Jan 1987, p. 45.
- 4 Williams, Gregg. "'C' Is For Crunch", BYTE, Dec 1984, pp. A75-A78, A121.
- 5 Little, Gary. INSIDE THE APPLE //C, 1985, pp. 1-7.
- 6 Weishaar, Tom. "Miscellanea", OPEN-APPLE, Aug 1985, pp. 1.61.
- 7 Durkee, David. "Marketalk Reviews", SOFTALK, Jun 1984, p. 120.
- 8 Baum, Peter. "Expanding The Unexpandable IIC", SOFTALK, Jun 1984, pp. 95-97.
- 9 "Preface: The Apple IIC Family", APPLE IIC TECHNICAL REFERENCE MANUAL, 1984, 1986, pp. xxiii-xxv.
- 10 APPLE IIC MEMORY EXPANSION CARD OWNER'S GUIDE, 1986, pp. 2-4.

submitted by Gregory L. Carlson 🍏

## ExpertPad/MessagePad

Continued from page 10

- Apple's device has prominent square edges. If one were to squint at the ExpertPad, one would mistake it for a large Wizard OZ-8x00.
2. The cover: It's functional in more ways than one. First, it protects the LCD screen. Not only does one feel better about protecting the screen, but also one has to clean it less often. Second, the quick tips on the inside cover saves the initial user from thumbing through manuals.
  3. The compatibility: Maybe I'm speaking too quickly; but it appears to be 100% software-compatible with Apple's device(s). For now, I feel comfortable that software applications—including ROM upgrades—which are available to the Apple MessagePad will be usable on the ExpertPad. For now, that's how I feel.
  4. The pen stylus: unlike Apple, Sharp designed the tip of the ExpertPad's pen a bit longer. This gives just a little bit more traction since the tip bends somewhat. When dragging the pen tip across the screen, this "friction" provides a bit more "tactile response" than Apple's pen.
  5. The User's Manual: My experience with Sharp user manuals for the Wizard line has been very good. And just like with those, the ExpertPad's manual is very well-organized; includes \*many\* illustrations for the novice user; and contains something which, in my opinion, is crucial to people who use a manual for reference: an index.

### What I dislike about the ExpertPad:

1. The casing material: The smoothness of the plastic which is used to house the ExpertPad's insides is quite disconcerting. First, after an hour of use "in-hand", "sweaty palms" turn into a "sticky ExpertPad". Then, I got the feeling that it would slip out of my hands!
2. The cover: The big problem with the ExpertPad's cover is, believe it or not, \*battery life\*! Oftentimes I would find myself closing the cover without turning the device off. Thank goodness I set "auto-shutoff" for five minutes; otherwise, I would have gotten one hour's use from a 32 hour (according to the manual's specifications) alkaline battery pack.
3. The rubber feet: It appears that the rubber feet of the ExpertPad a little

higher (and thicker) than those on the Apple MessagePad, so that there would be a bit more clearance on the bottom for the fold-away cover. The rounded edges of the ExpertPad made a "pocket fit" seem more comfortable. The enlarged rubber feet made me worry about tearing the feet off as the device slipped into my pocket.

4. The recessed pen storage area: This made prolonged use very uncomfortable. I rest my right hand along the right edge of the device. Doing so for too long resulted in nice, symmetrical, but uncomfortable "ridge" along the side of my right hand.

From an operational point of view, the Sharp ExpertPad seems to be well worth the money. As previously mentioned, it appears to run just like the Apple Newton MessagePad. However, it's important for a potential user to try the unit—whether one buys the Sharp ExpertPad \*or\* the Apple MessagePad—for a week or two before deciding to keep it. Not everyone will agree with my likes and dislikes. Also, one needs to give the device—either one-time to learn and adapt to one's handwriting style.

My second recommendation is to solicit the advice of others who currently use the unit or units in question. These people have gone through the time-consuming process of using either the ExpertPad or the Apple MessagePad on a day-to-day basis. These people can tell you what the strengths and weaknesses of either device are. This is what I've tried to accomplish in the limited time I've used both.

My final—and perhaps most important—recommendation is to ask others, and test for yourself, about the service and technical support which both Sharp and Apple provide. Newton technology will be constantly developing. And the design of these devices allow the user to keep up with these developments. A potential end user of Newton technology needs to make sure that the company whose name appears on the device will help him/her keep up with these developments!

[Note: For further information regarding this article, please feel free to contact the author, Conrado Bondoc, at CompuServe (72341,651) in the Newton/PIE Forum (GO NEWTON at any command prompt).]

submitted by Wily Coyote 🍏

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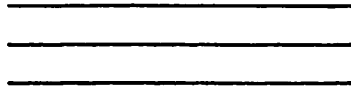
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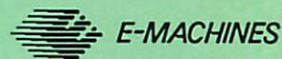
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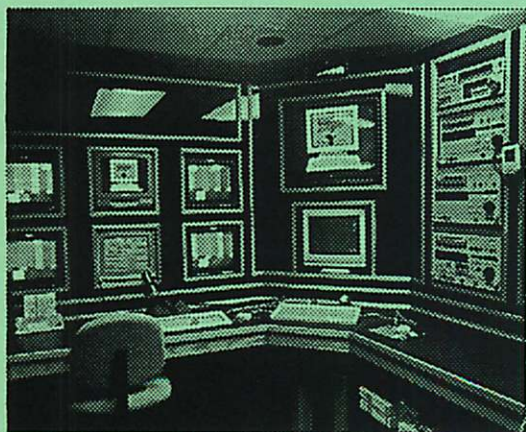
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