MAY 1994

Su	M	T	W	R	F	Sa
1	2	3	4	**5** 7:00	6	7
8	**9** 7:00 AM / 7:00	**10** 6:30	**11** 7:00	**12** 7:00	13	**14** Swap Meet 10AM
15	**16** 7:00	**17** 7:00	18	**19** 7:00	20	21
22	**23** 7:00	**24** 7:00 / 7:00	25	**26** 7:00	27	28
29	30	31				

Board of directors
Mini'app'les members welcome.
8320 42nd Ave No. New Hope Norwest
Greg Carlson, 544-8252

Apple II/GS Main
Augsberg Park Library, 7100 Nicollet Ave,
Richfield
EriK Knopp, 636-3244

ClarisWorks SIG
Norwest Bank, 5320 Lyndale Ave So.
Denis Diekhoff, 920-2437

Macintosh Main
St. Louis Park Library,
3240 Library Lane, St. Louis Park
Mike Carlson, 377-6553

Digital Communications SIG
Norwest Bank
8320 42nd Ave. North, New Hope
Keven Kassulker, 377-6553

Spring Swap Meet
Apache Plaza, 3800 Silver Lake Rd.,
NE Mpls.
Tom Gates, 789-1713

Fourth Dimension SIG
6250 Excelsior Blvd #104
St. Louis Park
Bob Demeules, 559-1124

Apple II Novice SIG
Murray Jr. High, 2200 Buford, St. Paul
Tom Gates, 789-1713

AppleWorks SIG
Murray Jr. High, 2200 Buford, St. Paul
Les Anderson, 735-3953

Filemaker Pro SIG
Highland Park Lib, 1974 Ford Pkwy.,
St. Paul
Steve Wilmes, 458-1513

HyperCard SIG
Science Museum of MN
30 East 10th street, St. Paul
Peter Fleck, 370-0017

Macintosh Novice SIG
Mirriam Park Lib, 1831 Marshall Ave.., St. Paul
Tom Lufkin, 698-6523

Mac Programmers SIG
Murray Jr. High, 2200 Buford, St. Paul
Gervaise Kimm, 379-1836

Macintosh Consultants SIG
Nora's, 3118 West Lake Street, Mpls.
Mike Carlson, 377-6553

Programmer's Workshop
Location Pending
Keven Kassulker, 535-2968

mini'app'les

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

Board of Directors:

President	Gregory L. Carlson 8216 32nd Ave. N. Crystal, MN 55427 544-8252	
Vice-President	Tom Gates 3425 Wilshire Place Minneapolis, MN 55418 789-1713	
Secretary	Leroy Sorenson 2415 24th Ave. S. Minneapolis, MN 55406 721-5638	
Treasurer	Jacque Gay 5226 W. Nokomis Pkwy Minneapolis, MN 55417 722-1239	
Membership Director	Bob Demeules	559-1124
Operations & Resource	Allen Mackler	424-8889
Publications Director	Keven Kassulker	535-2968
Editor/Publisher	Tom Ostertag	488-9979
Software Director	vacant	
SIGs: Mac	Wade Brezina	(715) 485-3585
SIGs: Apple II	Erik Knopp	636-3244
Past President	David E. Laden	488-6774

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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.

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 10th 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.

Mini'app'les BBS – 892-3317, 24 hrs. Settings: 8-1-0.

Mini'app'les Voice Mail – 229-6952

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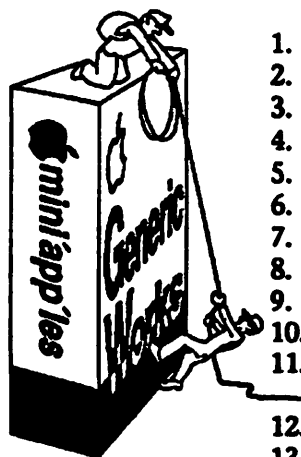
If you would like to be a "Members Helping Members" volunteer, please leave your name & phone number on our BBS, or leave a voice-mail message at 229-6952, or use the MultiForm mailer near the back of this issue.

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

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.

Treasurer's Report for 3/94

Jacque Gay

Income

Memberships	$690.00
Advertising	$120.00
Macintosh eDOMs	$18.78
Mail eDOMs	$4.69
Miscellaneous Sales	$1.88
Total Income	**$835.35**

Expenses

Meeting sites	$100.00
Labeling/Mailing	$50.00
Newsletter postage	$134.60
Maintenance contracts/repairs	$50.00
AppleLink account	$21.60
Information Line	$17.00
Membership promotion	$121.42
Total Expenses	**$494.62**

Net Profit/(Loss) **$340.73**

Table of Contents

INIT 29-B Virus Information

A new Macintosh virus was recently discovered, called INIT 17 which affects all Apple Macintosh computers systems. INIT 29-B was discovered in late March 1994. It is a new strain of the INIT 29 discovered in 1988 and is very similar in behavior.

INIT 29-B has no malicious intent. The virus is capable of spreading very rapidly. It will infect all types of files: applications, system files and data files. It is not, however, contagious when found in a data file, i.e. it can not spread from a data file (Remember that a virus must be executed in order for it to infect). In addition, INIT 29-B can reinfect a file again and again and again. This multiple infection characteristic can result in a wide variety of problems including out of memory error when running applications, the usual unexpected crashes, erratic behavior and an unexpected increase in file size.

Running an application infected with INIT 29-B can spread the infection to the System file. Once the machine is rebooted, the virus will then spread from the infected System file to any file that is opened.

Updates to Anti-Virus software:

Updates to SAM (Symantec Anti-virus for Macintosh), Disinfectant, Virex and other commerical and shareware anti-viral applications are posted to online services.

Update Instructions for owners of Symantec Anti-virus for Macintosh:

Owners of SAM Version 3.5 can instantly update the detection and protection capabilities of the program against this new virus by entering the new virus definition into SAM Virus Clinic. In conjunction with the new "SAM User Definition" and SAM, you will be able to scan for INIT 29-B from both Virus Clinic and SAM Intercept.

Update Detection Instructions

This is a two-step process, requiring two different virus definitions with the same virus name.

Step 1:
Open SAM Virus Clinic. From the Options menu in version 3.5 of SAM

Virus Clinic select "Virus Definitions". Select "Add Resource" Now enter the following information:
Name: INIT 29 B
Search String (Hex): 41FA FF8A 224A 203A FF96 A02E 41EA 013A
Offset: Equal to 116
From: Start
Resource Type: CODE
Resource ID: Any
Size: Greater or Equal to 256
Verification: E8B4
(Check: D0F3)

Step 2:
After you've entered the above information correctly, you will be able to click "NEW PAGE" to add the second part of the definition to SAM. Enter the following information:
Name: INIT 29 B
Search String (Hex): 41FA FF8A 224A 203A FF96 A02E 41EA 013A
Offset: Equal to 116
From: Start
Resource Type: INIT
Resource ID: Any
Size: Greater or Equal to 256
Verification: EAF4 (Check: 50F8)
After you've entered the above information correctly, you will be able to click "DONE" and

both parts of the virus definition will be added.

Update Repair Instructions

Owners of SAM Version 3.5 can instantly update the repair capabilities of the program against the INIT 29-B virus by downloading the updated SAM Virus Definition File available on the Symantec Bulletin board (503) 484-6699 (2400 baud) or (503) 484-6999 (9600 baud), CompuServe, America Online or Applelink. Once you have downloaded the file, you should copy it into your System folder, replacing the current SAM Virus Definition File with the SAM Virus Definition File just downloaded. SAM Intercept and SAM Virus Clinic will then be able to repair infected files that were not permanently damaged by the virus.

If you don't own a modem and cannot download the virus definitions file, you can receive a disk with repair capabilities for $12.00 (plus sales tax where applicable). To order, please call Customer Service at (800) 441-7234 in the US and Canada.
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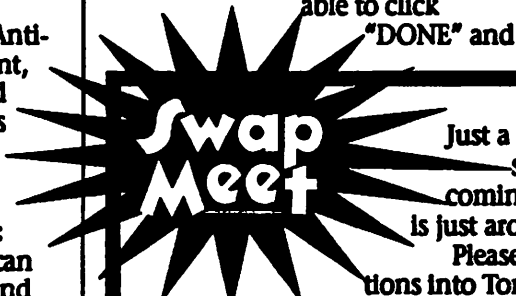
Swap Meet

Just a reminder that I'll be passing along some information on the Swap Meet coming up May 14th... since the Swap Meet is just around the corner.

Please remember to get any table reservations into Tom Gates by May 1st to get the no-charge deal for members. After May 1st, additional tables will be added as they are available but may require a charge of $10 each. (two folks could go together and split it $5 each)

But best yet, members should call Tom Gates at 789-1713 (evenings & weekends) to reserve table space, or leave a message on the information line 229-6952.

Contact either if you have any questions.

Standard deals on tables...

Members: 1/2 table no charge full table $10 setting up business table $10	**Vendors:** full tables $25
	Non-members: full table $20 for individual

Become a member and set up for $10!

President's Report

April 1994   *by Greg Carlson*

For the past few months, we've been having the board meeting at the Norwest Bank in New Hope. Please feel free to drop in and see what the board does at these meetings. We welcome any and all visitors. The meetings are held at the first Thursday of the Month, starting at 7:00 PM and continuing until done. We then convene at Applebees nearby for pie or ??

At the board meeting, we again concentrated on two areas: upcoming elections and the newsletter.

Other news of note that is happening:

1. The **Spring Swap Meet** is coming in May. Look for news about it in the newsletter.

2. The **newsletter staff is in place!** We still need Apple][submissions for the newsletter. Anyone interested in this position, contact Keven Kassulker. Tom Ostertag will be taking submitted text off the BBS, editing and passing onto Susan Bacig for final edit and consolidation into the newsletter. Susan says, "We need 'filler', articles that are not timely, but what may be interesting to other members. Upload your articles to the BBS under "For future newsletters".

3. **Elections are coming.** We have three members on the nominating committee thus far. If you are interested in running for an office (maybe you want something changed about the club and are willing to see it through) contact one of the current officers or a member of the nominating committee.

4. We still need volunteers! **Roy Sorenson has volunteered to become the Volunteer Coordinator.** Anyone who would like to volunteer, contact Roy, and those who have needs call him for ideas.

5. **We are looking for equipment donations,** and are willing to "swap" advertising space (within reason) for certain equipment. Specifically, a Mac, hard drive, and high-speed modem are in demand at the club.

6. **If you want to donate disks** for us to "recycle", please contact me or the Software Director.

7. **HyperCard GS is now available** as part of the Apple][eDOMs. Contact the Apple][software distributor or Software Director.

We receive reciprocal newsletters from various other clubs. If you are interested in looking at some of them, let us know. We are going to have a routing list, and any member is entitled to be placed on the list.

> See you at a SIG (pie or otherwise)
> Greg

Minutes of the 17 March 1994 Main Mac Meeting

by Tom Ostertag

Finding the Apple Offices in the Normandale complex was easy. Getting past the restaurant was the difficult part. Mike Carlson was just getting the meeting started as I arrived. First was distribution of CD-Access, a free CD-ROM with lots of freebie software... and a few bewares, like it installs 5 meg of files on the hard drive and has a conflict with Adobe Acrobat, but all things considering... you get what you pay for.

Next was Questions and Answers really only one, because Curtis Juliber was suffering from a hoarse voice and Mike really wanted to get the program going.

Mike introduced Curtis and as Curtis started his presentation, he made note of the literature and snacks that were available on the side table. His presentation involved the three PowerPCs, the 6100/60, the 7100/66 and the 8100/80 and what was included in each package. He also compared the Quadra 850 with the 6100/60 and a Pentium running the same graphics program and demonstrated that the 6100/60 would perform as well as or faster than the Pentium. Both the Pentium and the 6100/60 were faster than the Quadra 850.

Curtis also mentioned that one of the machines (the 7100/66 I believe, but I didn't write that down in my notebook.) came including Insignia SoftWindows and 16 meg of RAM for MSDOS applications.

There were 50 applications written in Native mode at the rollout at the Guthrie Theater on 14 March and there should be an additional 50 within the next 30 days. Microsoft is expected to have Word/Excel available in the May/June time frame.

There are two upgrade paths for the Quadra 610, Quadra 650 and Quadra 850 format Macs. The first is a $700 board that has a 601 chip on it and can be software selected to run either the PowerPC or the 68K microprocessor. The other upgrade is a complete motherboard replacement starting at $1K.

After presentation, there was some time to play with the machines and Curtis did show some PhotoShop graphics that were manipulated with great speed, I might add.

Mike Carlson made the announcement that the April meeting would be at the Microsoft Offices in the building next door to the Apple Offices. The topic will be what's new from Microsoft. The meeting will be on 14 April.

PIE SIG was at the Lincoln Deli where there was a great deal of discussion of cellular phones and advantages of System 7 vs. System 6.

All for now...
Tom Ostertag

mini'app'les 1994 General Meeting minutes

April 9, 1994
Washburn Library, Minneapolis

President Greg Carlson called the meeting to order shortly after 10:30. After reviewing the meeting's agenda, the following announcements were made:

Swap Meet is May 14 at Apache Plaza; contact Tom Gates for table space or for more info.

The next board meeting is May 5 at New Hope Norwest Bank, and members are welcome to attend. **Ballots for the election of the 1994-95 board of directors** will be available in the May newsletter, and can be mailed in or returned at SIG meetings: ballots must be received no later than May 27.

Greg then reviewed board positions and responsibilities, and opened nominations for mini'app'les 1994-95 Board of Directors (i = incumbent):

President: ....*Greg Carlson (i)*
Vice President: ....*Brian Bantz*
Secretary: ....*Roy Sorenson (i)*
Treasurer: ....*Jacque Gay (i)*
Publications Director: ....*Brian Bantz*
Software Director: ....*Owen Aaland*
Membership Director: ....*Bob Demeules (i)*
Operations & Resources: ....*Erik Knopp*
Mac SIG Director: ....*Brian Bantz*
Apple SIG Director: ....*Les Anderson*

(Note: Tom Ostertag, Tom Gates were nominated, but respectfully declined their nominations. Erik Knopp is currently on the board, serving as Apple II SIG Director.)

Discussion topics:

Bob Demeulles, Membership Director, showed the **new club brochures** that are being distributed through computer dealers around town and available at SIG meetings.

Bob said a member-volunteer has been found to keep the Computer City store stocked with brochures: Bob needs more members to help restock the dealers near them.

Publications Director Keven Kassulker talked about his **Digital Communications SIG meetings** for April, and encouraged members to attend. He also has free tickets to the Strictly Business Computer Expo May 4 & 5; call Keven for more info.

Member Eric Holterman said he would collect names of members interested in buying **Ram Doubler** through the user group discount. If ten members order, the price is $34. Four members are already signed up; if you're interested call Eric at 822-8528, or email him on the club BBS.

Greg then discussed future plans for the club, primarily board planning for a **major upgrade of the club BBS.** Using First Class BBS software (which won MacUser's 1994 Editor's Choice award as best new communications product), the club could offer Mac and Windows users a full color, graphical-interface BBS, with support for access to the club CD-ROM, while fully supporting Apple II users with command line access. Further progress on a BBS upgrade depends on donations of equipment; needed are a Macintosh (an SE/30, Mac II, or more recent model), hard drive, and a modem (9600 or 14.4 baud). Cash donations for equipment or the software are also welcome.

In answer to a question, Greg explained that (new) memberships cover not much more than the newsletter costs, so while more memberships are a goal, they are not a revenue source for new equipment. Jacque Gay, Treasurer, reminded

everyone that **tax deductions** for equipment donation to a non-profit organization (mini'app'les) can be a helpful option for members, or their employers, when figuring taxes. Club Sysop Dick Peterson set up the club Mac to demo the First Class software during the break.

After break for refreshments, Vice President Tom Gates introduced Chris Grant and Keith Kalenda. Chris is Midwest product rep. for American Power Conversion, and gave a freewheeling presentation on power problems for computer users, and APC product solutions.

He started with the four types of power disturbances: noise, surges & spikes, brownouts, and blackouts. He quizzed the audience, "Which is the most common power disturbance?" (answer at end). He explained the difference between APC surge protectors and a $4 special at the corner store, and when a UPS is preferable to a surge protector. In answer to questions, he detailed power protection for a home office LAN, and told us about lightning hitting his apartment.

Following Chris was Keith Kalenda of Business Security Products (612-789-1190 or 1-800-544-2774), local distributor of APC products. Keith announced an ongoing discount to user group members of between 25% – 33% off retail price on APC products. The meeting broke up as members made for the refreshment bar and to ply Chris and Keith with more questions. (Answer to quiz: according to a Bell Labs study brownouts represent 87% of power disturbances.)

submitted by Roy Sorenson, Secretary

Mini'app'les HyperCard SIG Announcement MAY '94

Once again we are meeting at the Science Museum of Minnesota. They have agreed to host our future meetings too. This gives us access to an overhead projector for better viewing. This month, we'll look at ways of getting some color in HyperCard including using the new Color Tools stack, and bringing in PICTs and QuickTime movies.

Tuesday, May 24, 1993 7:00-9:00. At The Science Museum of Minnesota, 30 East 10th St., St. Paul. The meeting is not in the museum itself. Go to the classroom area near the education offices and off Museum Square.

For more info, contact Peter Fleck, 370-0017, or via the InterNet <ast1.spa.umn.edu>.

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

March 3, 1994
Norwest Bank, New Hope
Presiding Officer: President Greg Carlson.

Preliminary Attendance

Members: Greg Carlson, Jacque Gay, Erik L. Knopp, Roy Sorenson, Keven Kassulker, Wade Brezina, Tom Gates, David Laden, Sam Goshorn,

Excused: Bob Demeules, Al Mackler

Guests: Dick Peterson, Hugh Johnson, Gary Carpentier

Meeting called to order by President Greg Carlson at 7:14.

Adoption of Agenda: agenda passed with minor correction.

Feb. 3, 1994 meeting minutes approved with corrections.

Treasurer's Report — Jacque Gay

See Treasurer's Report. Treasurer's report approved.

President's Report — Greg Carlson

See President's Report.

Vice President's Report — Tom Gates

The annual general meeting will be at Washburn Library in south Minneapolis on April 9. Tom regretted the annual meeting wasn't prominently advertised in the March newsletter.

Membership Director's Report: Bob Demeules

Excused — see submitted report.

Software Director's Report: Sam Goshorn

$25 in EDOM sales, and 2 new EDOM's coming out.

Mac SIG Director's Report: Wade Brezina

Apple prefers not to change the site of their PowerPC demo for the March main Mac meeting, but may do a second demo on same evening if enough interest is shown. Wade confirmed we will have a booth at the March 14 PPC roll out at the Guthrie Theatre, in exchange for Apple's use of our mailing list announcing the PPC event. Wade, Tom, Roy and Greg will staff the booth and hand out brochures. The Strictly Business Computer show is May 4 & 5, and Wade will check with Apple to see if we can have a presence at their booth.

Apple II SIG Director's Report: Erik Knopp

No changes from last month.

Publication Director's Report: Keven Kassulker

Keven said in March the Digital Communications SIG will accept newsletter content. Keven said he has found 3 volunteers there who are interested in helping with newsletter.

Strong dissatisfaction with the March newsletter was voiced by Tom, Jacque and Roy: no Apple II material was published, whereas Keven used the last two pages to promote his SIG and advertise his for-fee programming class.

Regarding Apple II content, Hugh said he had decided to stop running the 'history of the Apple II' series, and there was no Apple II news uploaded, but Tom disputed that, saying he had seen Apple SIG reports for several months uploaded but go unused. Motion by David, seconded by Tom, to entrust responsibility to the Apple II members to produce, layout, and contribute camera ready content for their part of the newsletter. Motion passed unanimously.

Keven defended his insertion of a full page announcement of the Digital Communication SIG he leads. Denying a conflict of interest, he said that as he had worked hard on arranging speakers for his SIG, it warranted a prominent announcement. Tom noted that the notice for the annual general meeting in April was buried in the same newsletter.

The propriety of Keven's insertion of a full page solicitation for customers for a Think-C class was sharply called into question by Tom, Jacque, and Roy, "...lots of members teach classes, but don't get a free full page advertisement." Keven first said it would be a mini'app'les sponsored class: when that was challenged, because he had never sought authorization, he said it would not be 'sponsored by', but a benefit to members via a discounted fee. Keven said his actions were no different than SIG leaders who promote themselves at their meetings, but no one else supported this charge, and Tom pointed out that if it occurred, it would also be a conflict of interest.

Operations and Resources: Al Mackler

Excused — no report.
Reports were approved by board.

BBS

The board is looking for donations of equipment to run a First-Class software BBS: needs include a Mac, hard drive(s), high speed modem. Any members with hardware to donate, or leads on potential contributors, should contact Greg.

Election Update:

The general membership meeting will be 10:30 AM, Saturday, April 9, at Washburn Library in South Minneapolis. The nomination committee has 3 members and will be going to the SIG's to gather nominations. Any request for changes in club bylaws should be submitted in writing to club President by March 31. Election ballots will appear in the May newsletter, with installation of new officers in June.

Newsletter

Wade will edit April issue only. Jacque will pursue a lead on a potential new editor. Incentives for newsletter editor would require increased ad revenues.
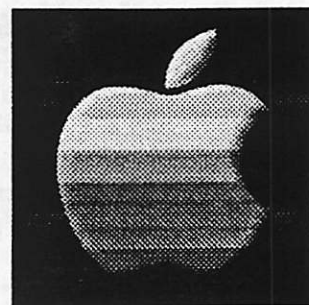
New Business

The overhead projector is broken again. Tom will report on repair status at next executive meeting.

Adjournment moved, seconded and approved.

Next board meeting:
7 pm, Thursday, April 7, at Norwest Bank, New Hope.
Submitted by Roy Sorenson, secretary.

APC Product Offer

by Tom Gates

If you were unable to attend our General Membership Meeting in April, first you missed a good meeting. Our thanks to Chris Grant for a fun and informative presentation. Secondly you may not have heard about the ongoing APC Product offer available to Mini'app'les members through Keith Kalenda and Business Security Products, a local distributor of the APC product line.

Keith and Business Security Products is offering members of Mini'app'les a discount of one third off the APC list prices for the SurgeArrest surge protection products. And 25% off the Back-UPS and Smart-UPS power back up products, and other APC products like the PowerManager and PowerChute software.

Within the SurgeArrest line there are 13 models in three categories to choose from. The "Personal", "Professional" and "Network" categories. All of which come with a life-time warranty from APC. Should they fail (there is an indicator light on each), APC will replace the product at no charge.

APC also has a lifetime equipment protection plan. In the event any of your equipment should be damaged by a surge or lighting strike, APC will repair or replace your equipment up to $2,500 with the Personal series, up to $10,000 with the Professional series and up to $25,000 with the Network series.

The Back-UPS and Smart-UPS power backup products come in a number of configurations based on the power load of your equipment. All of them have a two year warranty and the lifetime equipment protection plan of $25,000.

The PowerManager is a power director and surge protection (at the level of the SurgeArrest Network devices) in one with the lifetime warranty and $25,000 lifetime equipment protection plan.

The PowerChute software provides for unattended system shutdown for systems without that ability built in. The software works together with the Back-UPS or Smart-UPS products to shut down a system safely in the instance of a power outage. Perform UPS self tests and monitor the status of the UPS. Provides remote management of the UPS products and can help log and track power problems.

I'd like to stress at this point that the discounts offered through Keith at Business Security Products are "ongoing". They weren't a one-shot deal at the general membership meeting. We've got some additional product materials we'll try to make available at upcoming meetings.

But, if you'd like more information, contact Keith Kalenda at Business Security Products—(612)789-1190—and identify yourself as a Mini'app'les member.

Submitted by Tom Gates

DEALS—Inline Software
Mac User Group Special Discounts Effective 2/94

	Version	Part #	User Group membership price	SRP
Games:				
Darwin's Dilemma	2.0	200A	$24.98	$49.95
Swamp Gas-USA	1.02	500	$24.98	$49.95
Mutant Beach	1.02	600	$24.98	$49.95
Swamp Gas-Europe	1.0	700	$24.98	$49.95
Tinies	1.0	800	$29.98	$49.95
SCOUT	1.4	1000	$29.98	$49.95
Firefall Arcade	1.0	1100	$24.98	$49.95
Three Great Plays	1.0	1300	$24.98	$49.95
Deliverance	1.0	1200	$24.98	$49.95
Utilities:				
INITPicker	3.02	20300	$39.98	$79.95
HAM	1.0	20500	$39.98	$79.95
Redux Deluxe	2.5	20690	$39.98	$79.95
Inline Sync	1.01	20700	$39.98	$79.95
Icon 7	1.0	20800	$29.98	$59.95
PopupFolder	1.0	21000	$25.00*	$59.95

The above costs are exclusive of shipping charges (approximately $5.00). If an individual purchases four programs, we will throw in a free copy of Darwin's Dilemma!

Ruth Crowther, Director of Marketing
Inline Software
308 Main Street
Lakeville, CT 06039-1204
(203) 435-4995
Fax: (203) 435-1091

Order : 800-550-0056 (6:00 AM to 6:00 PM Pacific Time, Mon.-Fri.) Mention code # UG50.
*Special introductory price for PopupFolder.
*Suggested Retail Price And Mac User Group Discount Structure:

GOOD DEALS #8

by Ken Slingsby

This is the eighth 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 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 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!

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!

PRESS RELEASES

The following short article is copyright 1994, Apple Computer, Inc. February 28, 1994. Apple will publish support information, on the InterNet, including a subset of the Tech Info Library (all articles for the general public added or updated since February 1, 1994), and Apple software updates to the Home Gopher Server at the University of Minnesota. Gopher is a method of publishing information on the InterNet in an easy-to-use hierarchy structure.

Gopher and its Macintosh client software called TurboGopher were developed by the University of Minnesota. With this freely distributed application, InterNet users can browse through published information, search the Tech Info Library using keyword searches, or download Apple software updates.

Apple plans to publish support information to many on-line services in the next few months.

Locating the Apple Tech Info Library (Apple/Mac)

Apple recommends using the TurboGopher client software to access the Apple Tech Info Library. The library is located in the following path:

Home Gopher Server> Computer Information> Apple Tech Info Library

TurboGopher Client software is available via anonymous File Transfer Protocol (ftp) to boom-box.micro.umn.edu in the /pub/gopher directory.

Connecting to the Home Gopher Server:

The host address is: consultant.micro.umn.edu

The IP number is: 134.84.132.4

The Apple Computer Higher Education Gopher Server

Apple is also publishing support information and Apple software updates on the Apple Computer Higher Education Gopher Server in the "USA Service, Support & Training folder."

Geoport Technology

SAN JOSE, California March 2, 1994

Apple Computer, Inc., Aox Inc. and Analog Devices, Inc. today announced their intention to provide cross platform, plug-and-play connectivity between personal computers and telephones on corporate desktops. Apple plans to open its GEOPort technology to the PC and telephony industries, thereby enabling desktop media communications from any computing device, running any operating system, to any analog

or digital telephone line. Aox and Analog intend to play key roles in the deployment of GEOPort to both industries. As a high-speed media communications interface, GEOPort can support voice, data, telephone control, audio and video over any analog (POTS) or digital (PBX or ISDN) telephone line to any desktop PC, workstation or notebook computer. Apple has been shipping GEOPort for Macintosh personal computers since August 1993, and will include the technology in future PowerPC-based machines.

With the media bottleneck finally broken, computer and telephony suppliers will be able to offer their customers such features as:

- high-quality, multiple party video conferencing over the PBX
- document sharing with workgroups for collaborative computing
- fax/modem from any desktop PC, even if connected to a digital line, without the need for gateway services
- integrated telephone dialing, answering, caller ID, voice and electronic messaging services from the desktop
- high-speed transfer of images and documents from scanners, digital

cameras or notebooks onto the desktop PC

- connect new and future high-performance V.32bis or V.34 modems to any PC without a throughput bottleneck at the serial communications port

Good Deals

Good Deals arranged by the User Group Alliance (UGA). Request a free 7 color sample pack of CASCADE MP Brite paper from Boise Cascade; they'll also send you a copy of their Business Papers Sample Book, and handy selection guide. Call 800-453-2907.

MacLearn Computer Training publishes a Quark XPress audio training course. At Ease with Quark is comprised of four (4) modules, (basic, intermediate, intermediate+, and intermediate/advanced) and an easy-to-follow workbook. Phone support is available Monday-Friday. Each module is $48.95. Until 4/30/94, purchase all four (4) modules for $95.95, plus $5 shipping, or $15 for 2nd day. Check, money order, or Visa accepted. Mail to: MacLearn Computer Training, 255 Great Arrow Ave, Buffalo, NY 14207; or call 800-387-5327 to order. Ask for the UGA special.
You can request a supply of brochures that describe the program by calling Krista Hirschhofer. MacLearn is currently developing At Ease with Illustrator.

Ohio Distinctive Software has a limited-time offer on their nutrition software. For $8, you will receive three (3) programs that normally sell for a total of $218.95. Program #1, Executive Diet Helper analyzes your diet for fat, cholesterol, protein, carbohydrates, and calories; monitor your diet and find substitute foods from a database containing 3500 items including fast foods and frozen dinners. Program #2, Menu Planner, creates daily menus for any calorie level, with provisions to accommodate special needs (e.g., diabetes, vegetarian, hypertension, pregnancy, etc.). Program #3 Weight Loss Planner, recommends a daily calorie level based on your physiological profile, and ideal weight, and allows you develop exercise programs to burn off calories. Limit two (2) per customer. Mail check or money order for $8, plus $3 shipping to: Ohio Distinctive Software, 4588 Kenny Rd, Columbus, OH 43220. Mention priority code: UG. Satisfaction guaranteed or full refund, including shipping.

Dream Maker Software has a limited-time offer on their Cliptures collection of EPS clip art of $59 per volume.($69 through MacWAREHOUSE.)

Also available is a five (5) volume collection, which includes Business Images 1 & 2; Sports; World Flags; and Borders for $249.

In addition, their four (4) volume MacGallery collection of MacPaint (PCX) format clip art, (which includes two (2) new volumes) is available for $24.95 (half-price), and includes a free copy of CE Software's Amazing

Paint. Shipping is extra: UPS ground $4, $2 ea. addt'l item; UPS 2nd day $6, $3 ea. addt'l item; UPS Next Day $15, $4 ea. addt'l item. Satisfaction guaranteed.

Check, money order, Visa, MC, or Amex accepted. Mail to: Dream Maker Software, 925 W Kenyon Ave, #16, Englewood, CO 80110; or call 800-876-5665.

RAM Doubler Offer
Connectix is offering user groups a special, bulk purchase price on RAM Doubler. It is a system extension that doubles the amount of application memory available under systems 6 or 7. Since it normally does its work in physical RAM, it works much faster than virtual memory using a hard disk and does not require much hard disk space. It requires a 68020 or higher, PMMU and at least 4 Meg of physical RAM to work.

Recent reviews I have seen of it are favorable and comments from users I have talked to it support their claims. The cost, including sales tax, should be a bit under $40 and we need a minimum of 10 purchases to move forward. If you are strongly interested, let me know by EMAIL (preferred) on the Mini'app'les BBS, box 66 or call me at 822-8528 (voice). I will get back to you if enough interest is there and you can place your order. Purchases will need to be prepaid at the time you place your order and you must be a Mini'app'les member to participate.

Thanks, Eric Holterman.

CAMPBELL, California—March 2, 1994

Apple Computer, Inc., today announced U.S. price reductions ranging from nine to 14 percent on selected models in its PowerBook line of notebook and sub notebook computers. Current and previous Apple prices for the affected PowerBook computers are as follows:

Model	Previous Apple price*	New Apple price*	Percentage Change
PowerBook 180 4/120	$2,499	$2,219	11%
PowerBook 180 4/120 w/express modem	$2,749	$2,479	10%
PowerBook Duo 250 4/200	$2,269	$1,959	14%
PowerBook Duo 250 12/200 w/express modem	$2,789	$2,479	11%
PowerBook Duo 270c 4/240	$3,099	$2,789	10%
PowerBook Duo 270c 12/240 w/express modem	$3,619	$3,299	9%

Apple price is the price at which Apple intends to sell its products to customers who are purchasing as few as one unit through a direct Apple sales program. Apple price is a method Apple uses for announcing and advertising its products.

CD-ROM for the Apple IIGS

by Tom Gates

At our February main Apple II meeting, Eric Christianson put on a great presentation on new CD-ROM capability for the Apple IIGS. Up until this past winter, the Apple II line has missed out on the CD-ROM revolution even though Apple has had a CD-ROM product for the Apple IIGS for over five years. Beyond the "GEM" disk from the National Apple User Group Conference (NAUGC '90), the "Apple Science CD" (part Apple, part Mac), and a very small smattering of third party disks, there have been real slim pickings.

A person has been able to drop in some of the Mac CD-ROM disks and using IIGS utilities like Mac Sound Grabber, go into Mac programs and pull sounds from the resource fork of the file. Or go after GIF picture files or Mac format picture files. But in any case it's been a back door approach. With the advent of discQuest and another product called CD-Roam, the front door has begun to open some. The following article from GEnie's monthly Apple II newsletter "GEnieLamp" has some of the information that Eric spoke of at our Apple II meeting and also gives some more information on the new color features that were not yet available at the time of the meeting. Enjoy!

A Visit With Jawaid Bazyar

A CD-ROM software interface for the IIGS seemed a pipe-dream to many Apple II fans. However, Jawaid Bazyar, author of GNO/ME, SwitchIt, and discQuest, never had any doubts that it could be done.

I met Jawaid on a cold, snowy Saturday this past February at Sequential Systems in Lafayette, Colorado, where he had promised me a personal demonstration of Sequential's CD-ROM bundle and the discQuest software that makes it all possible. Just a few miles away in Boulder there was an all-important basketball game that same day between the University of Colorado and my own alma mater, the University of Kansas. The rest of my family was going to that game. However, for me basketball could wait; I couldn't pass up the opportunity to meet Jawaid and see discQuest.

"Someone called up here and wanted us to admit that we didn't have CD-ROM capability," Jawaid said as he unlocked a door to Sequential's plant and offices. He explained that after Sequential sent out their press releases, many people couldn't believe it was true, and others seemed openly hostile to the idea that the GS could actually possess such a capability. Nonetheless, discQuest is a reality that not only works, but it works well.

In a matter of minutes, Jawaid and I were sitting in front of a RamFAST-equipped IIGS with CD-ROM drive, and he was running a beta color version of discQuest. As reported in last month's GEnie, the color version of discQuest is no longer in beta, and is now being sold with Sequential's CD-ROM bundle as version 1.2.

Jawaid is a C programmer who does some GS development on a 486 PC compatible and then ports his code to the GS using his UNIX-like environment, GNO/ME. The discQuest software, however, was developed strictly on a GS. According to Jawaid, DiscQuest makes use of a CD-ROM format called "DiscPassage". To date, Sequential and Jawaid have identified some 15 DiscPassage CD titles that will work with discQuest. No doubt Jawaid's familiarity with the PC has helped him in his understanding of DiscPassage, which was originally set up for use by PCs.

DiscPassage is primarily a hypertext format that includes 640x480, 256-color images. A bit of software sorcery is necessary to make a PC's VGA color images fit the IIGS's 640 x 200 screen resolution. To do this, Jawaid's discQuest "front-end" turns the GS screen into a mouse-controlled window that slides around over a slightly magnified PC graphic image to display portions of the image in color mode. Keyboard commands can then shift between this color image and what Jawaid calls a "16-color gray scale" display to provide full, single-page images of the graphics. Color or gray-scale can be selected as defaults. The arrangement works smoothly on an algorithm

that Jawaid calls an "octree quantization method."

The CD-ROM search functions of discQuest are performed from a standard GS screen display with menu bar. Searches can be performed by author, keyword, subject and title. A "Related Items" selection is also available from the menu bar. Jawaid feels that the search functions benefit from a "very fast index built into DiscPassage". Subjectively, searches seem to occur about as quickly with a RamFAST-equipped GS as those performed on a CD-ROM drive attached to a MAC LC. Text displays are in standard 640x200 GS black-on-white. The GS user can capture the text for use in other documents, and graphic images can be printed to disk. Jawaid explained that GS/OS system 5.04 or higher is necessary to use discQuest.

Sound is provided through the CD-ROM drive, itself, rather than the GS. As the user accesses specific portions of a CD's text and graphics, an audio track on the CD automatically plays the corresponding sound data through a speaker jack on the drive. Sequential bundles a pair of small, multimedia speakers with its drive, discQuest software and CD-ROMs. In this writer's opinion, the speakers provided adequate sound and amplification. A flyer from Sequential offered two bundles, both of which include an RF card, single and double speed "Texel" CD-ROM drives, multimedia speakers and a selection of four CDs.

The RamFAST SCSI card offers the widest compatibility with CD-ROM drives. However, discQuest will also work with the Apple high speed SCSI card. For those who missed last month's GEnieLamp A2, it was reported that the RF card would work with Texel, NEC, and "virtually all" SCSI-2 CD-ROM drives. The Apple high speed SCSI card would reportedly work with the Apple CD-150, Apple CD-300 and some Apple SCSI-2 drives. Jawaid said that Tulin was completing a driver for the Apple HS SCSI card which would allow it to be used with NEC drives. However, if you own the Apple SCSI

card, it might be best to try before you buy. For those who already own a RamFAST or Apple HS SCSI card, Sequential will sell the discQuest software, CDs and drives separately. RamFAST owners may require a ROM upgrade to their cards for compatibility.

Jawaid lamented that no encyclopedia CD was as yet available for the IIGS. This was due mainly to the fact that none exists in "DiscPassage" format. Nonetheless, Jawaid felt that an encyclopedia was "doable", and he expressed

confidence that an encyclopedia would eventually be available. He said that DiscPassage is licensed to several different companies but that none have yet come up with an encyclopedia. Meanwhile, at more than 600MB storage per disk, there's more than enough information available on Sequential's collection of 15 CD-ROMs to keep users busy for some time.

Big Red Computer Club has announced through their publication SCARLETT that they will also offer the Sequential CD-ROM bundles, discQuest software and CDs for

sale. A full list of the CD titles is available from Sequential and another list of the titles was posted in last month's GEnieLamp A2. Additional lists with complete descriptions of each CD are available in the most recent issue of Scarlett and on GEnie's Apple II RoundTable in Category 20, Topic 12. Check out these lists. They include such things as a Darwin multimedia collection with complete text and graphics from several of his works, the complete Monarch Notes, complete collected works of William Shakespeare, U.S. history, world history, and countries of the world on CD.

Jawaid explained to me that he wrote discQuest for the same reason that he wrote GNO/ME, simply because "People told me it couldn't be done." He said, "People get to a point in the GS market where anything that couldn't be done in the

past becomes impossible. I've never let anything like that bother me." He said a CD-ROM interface for the GS was always a possibility once GS/OS system 5.04 (with its support of ISO 90 CD ROMs) was released.

Personally, I'm glad that Jawaid Basyar enjoys this kind of challenge. DiscQuest really works. I've already got a RamFAST card, and CD-ROM drives are dropping in price faster than leaves in October. Now all I need to do is save a few more of my pennies, and I'll be able to get my own drive and discQuest software. I can hardly wait.

discQuest GS
by Jay Curtis - From A2 GenieLamp

To join GEnie, set your modem to 2400 baud (or less) and half duplex (local echo). Have the modem dial 1-800-638-8369. When you get a CONNECT message, type HHH. At the U#= prompt, type: JOINGENIE and hit the [return] key. When you get the prompt asking for the signup code, type DSD524 and hit RETURN. The system will then prompt you for your information. Call (voice) 1-800-638-9636 for more information.

APPLE IIGS RGB MONITOR FIX

by Gary R. Utter from A2 GEnieLamp

A number of Apple IIGS owners have run across a problem with their monitors in which the monitor suddenly displays in only one color. While it seems any fix that has to do with the monitor would cost plenty to take care of, this problem - while scary looking - isn't all that bad to correct. Any reasonably competent technician can fix that problem for pennies (plus his or her labor charges) with the following information....

1. The part that causes the problem when it fails is a "choke" or "inductor", that is mounted on a small circuit board attached to the back of the monitor tube itself. This part looks like a small blue ceramic ball with two leads coming out the bottom, and is color coded for 10 microhenries.

2. There are three of these items on that circuit board, and if any one of them fails, the symptom is a screen all of one color, with total loss of any controls of the monitor. The parts are identified by number, and what color the screen is will tell you which one to replace...L6R2 for a Red screen, L6G2 for a Green screen, L6B2 for a Blue screen.

3. You can probably get a 10 microhenry choke at Radio Shack, or it is available for $1.28 (plus a $5 Handling charge) from Digikey Corporation at (800) 344-4539. They take Mastercard, Visa, and C.O.D. The Digikey part number is M8025-ND.

4. After replacing this part, the monitor colors will need to be readjusted via the small color trim pots on the same circuit board.

© 1New Macintosh Virus: INIT 29-B
*IMPORTANT NOTE: Despite the fact that this memo is being sent on April 1st, this Support Notice is *not* an April Fool's Day joke, this is a real, but non malicious Macintosh virus!*

Various Mac and Apple II Tips

Using Teach Text to crop PICT graphics

Looking for ways to avoid photo-shop for Cropping Command-Shift-3 screen dumps (or any other PICT image)? Paste the original graphic into Teach Text. Marquee and copy the desired area, then paste into a new Teach Text document (you might want to allocate more memory to Teach Text via Get Info).

from MacDigest, January 1994

Forgot your AtEase password?

Go into your hard drive System Folder to the Preferences Folder. Throw away the AtEase Preferences, then restart normally from your hard drive.

from MacDigest, January 1994

Find & Replace tabs and carriage returns in ClarisWorks

Type backslash-t (\t) for tabs and backslash-p for carriage returns in the Find/ Change dialog box.

from The Active Window, Jan. 1994

Copy files in the background in Sys 7

The trick is to start the program you want to work in first. Once you start the copying process, you can't start another program. However, you can switch to another program that is already running.

from The Active Window, January 1994

Text file mode

If you are using text files created on a platform other than the Mac with returns at the end of every line, here is how to get rid of them. In your favorite word processor, search for all occurrences of two returns and replace with a holding character like Option-Shift-7 that you know is not in the document. Replace all remaining single returns with a space if needed, or nothing at all. Replace all the holding characters with a return. Now you have normal paragraphs.

To replace all occurrences of multiple spaces with just one space, use line indents. You can replace all pairs of spaces with single spaces and continue from the beginning of the document again and again until all of the double spaces have been eliminated.

from The Active Window, January 1994

5.25" Disk repair

If you spilled something messy on a 5.25 inch disk, don't worry, it can be cleaned. First slit the edge of the floppy's outer cover and remove the circular disk inside. Holding it by its central hub, rinse it carefully in a sink of warm water ... try not to touch the body of the disk unless your hands are very clean. After that, wipe it off with a soft cloth. While letting it dry, find a blank disk, slit it open and remove the disk. Take the now empty plastic cover and insert the clean, dry disk into the new jacket. Tape the end shut, and make a backup immediately! This also work with floppies that

have been bent out of shape or that won't fit into your drive.

from SWAKS, January 1994

Dot Matrix Ribbon extension

Dot matrix ribbons are often thrown out before their time has come. To renew a seemingly worn out ribbon, remove the cover and spray WD-40 throughout the inside. Keep the cover off for about a week, then use the ribbon again. The WD-40 distributes ink throughout the entire ribbon, instead of in patches. This technique only works a few times before the nylon ribbon wears out.

from SWAKS, January 1994

Virus Remedy

If you are worried about the threat of viruses on your Mac, it's a good idea to make a Disinfectant startup disk. This way you can be sure that you will be able to start your machine and run a clean copy of Disinfectant. You start with a blank high-density disk and copy the Disk Tool disk from your System disk set onto it. Throw away everything but the System folder. Open the System folder and move the System suitcase out of it. Throw away the remaining System folder. Copy Disinfectant onto this disk and

rename it "Finder". If you are using a newer Mac that requires enablers, copy the correct enabler onto this disk. Finally, lock the disk so that viruses cannot get on it. You now have an emergency bootable Disinfectant disk.

from Atoms Apple, March 1994

Globe Trotting (condensed from article by Geoff Wood in Mac Times)

Do you know all of the features of the Map control panel? To locate a city, just type its name in the box and click Find. If the name has been stored in the Map, you'll see a flashing star. If you hold down the Option key while clicking Find, you can scroll through a listing of all of the cities stored in the Map. You can use the Set button to set your location and the Map will calculate the distance between your location and any city you've selected. If you click on the Mi, it will switch to Km and then to Dg (degrees) for the distance. It is not always easy to see exactly where you are on the world because the Map is so small. If you hold down the option key when opening the Map, it will display a magnified view that will be easier to see. To scroll the Map, click the pointer on the map and drag in the direction you want to scroll. The System 7 Scrapbook has a color picture of a world map, which is much better than the black and white one that comes with the program. You can copy this and paste it into the Map, which lets you see even more features. Cities are now red squares, oceans and lakes are blue, land is dark green for forest to pale fawn for desert. The best way to add a city is to enter its name and its latitude and longitude and then click "Add City", but you can try to click on its location on the map if you're not concerned about being precise. Don't forget to look for the Middle of Nowhere.

from Atoms Apple, March 1994
Submitted by Tom Gates

Newton Press Releases

Apple Computer Inc.
CUPERTINO, California
March 4, 1994

1. Apple Computer, Inc., announced a new version of the Newton Toolkit—the comprehensive developer system for the Newton platform—is anticipated to be available in early April 1994. The Newton Toolkit is a powerful, sophisticated, yet easy to learn development environment designed to reduce significantly the time taken to develop creative Newton applications. Among the enhancements to the Toolkit are graphical tools, special utilities and Newton Book Maker—a new tool for publishers which facilitates the creation of electronic books.

2. Expanding the capabilities of Newton technology, Apple Computer, Inc. announced the Newton MessagePad 110, the most recent addition to the Newton MessagePad family. The Newton MessagePad 110 incorporates many new improvements, features, and design modifications which are based upon suggestions from customers and licensees.

3. Apple Computer, Inc., announced that it has begun shipping version 2.0 of the Newton Connection Kit for the Macintosh. Newton Connection kit v 2.0 makes it simple for people to exchange Newton information with common Macintosh applications.

4. Apple Computer's StarCore software publishing and distribution group today announced three application packages for Newton , each offering a suite of business solutions specifically designed to help mobile executives work more effectively. The Newton Solution packages are compatible with both the recently-announced Newton MessagePad 110, the Newton MessagePad 100 and other products based on Newton technology.

5. Apple Computer, Inc. welcomes Toshiba Corporation into the family of companies worldwide which are licensing Newton technology. Toshiba intends to develop a new line of products based on Newton technology.

HyperStudio NBA's Wanted
*by Jeffery S. Rash - GS Resources*

I am in need, no, everyone that develops HyperStudio stacks is in need of NBAs. Good ones, that do very neat stuff. First, I am in need of an NBA that will play NoiseTracker _Modules_ and I am willing to pay for it. I have picked the Module format because it's the most convenient, the music sequence and the instruments are all saved into one file. I require that it be able to load the NT Module from any directory I choose, not just the one the stack is in, and it needs to play and stop play in the same manner that the MIDISynth NBA does. I'll pay $50 for this.

Also, I have other ideas for NBAs and I'd love to see them become reality. Although, I can't promise much, if any, money for this, at least from me.

1) Telecomm NBA: This NBA should allow you to send and receive text to and from the modem port.

2) DOS NBA: This NBA should allow you to copy/delete/rename/etc. With an NBA like this you could create a stack that will install software, etc. Just to name one of it's uses.

If you would like to help me bring more power to HyperStudio please Email me or post here ASAP.

Jeffery can be reached on GEnie at the following ID: GS.OZONEMAN
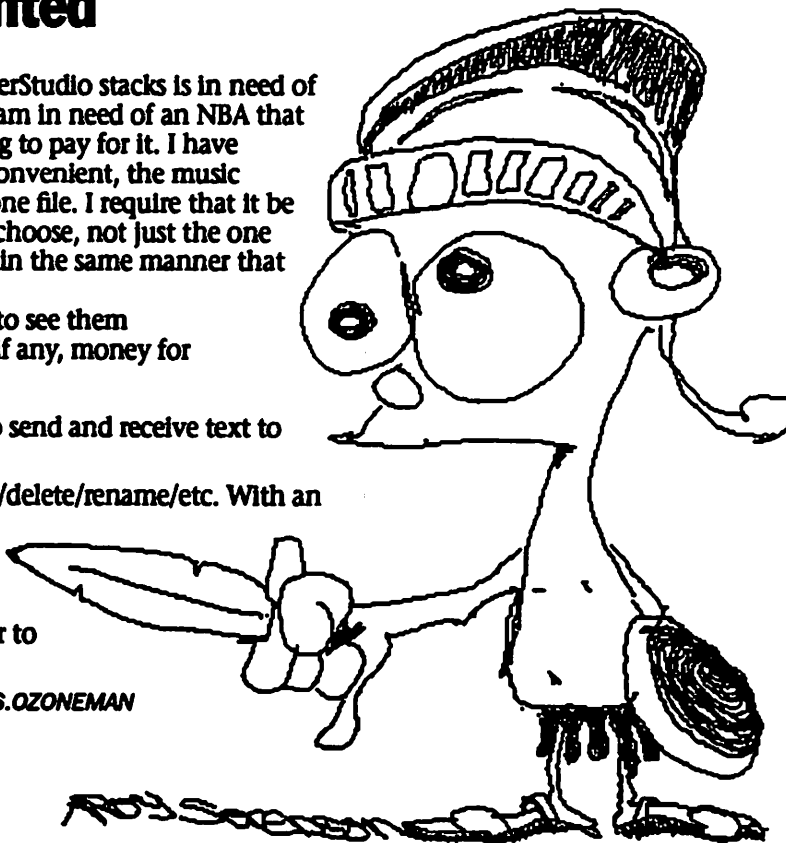
⨍ubmit!

Deadline for Newsletter Contributions is the 9th of every month

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Apple II History

Part 9 — Disk Evolution / The Apple IIC Plus

Advances in Apple II Disk Storage

Since Steve Wozniak's Disk II floppy drive changed the Apple II from a hobbyist toy to a serious home and business computer in the late 1970's, the progress of disk storage has been slow for the Apple II series. In 1978, the year the Disk II was released, Mike Scott (Apple's president) and Randy Wigginton were asked at a user group meeting whether they were going to go to the larger capacity eight-inch floppy drives (which had been around before the 5.25 floppy drives). They answered that no, the Apple II was not going in that direction, but felt it might get a hard disk by 1979 or 1980, and possibly earlier than that a double sided, double density 5.25 disk with 500K per disk.<1> Of course, this never did happen; as we saw in part 7 of this historical overview, the Apple III project began to overtake the hearts and minds of Apple executives by 1979, and anything newer, bigger, or better was reserved for that machine. As a result, DOS 3.2 and 3.3 was hard-coded to work specifically with the Disk II and its 143K of available storage, and never enhanced to easily access larger capacity drives. (Later, when we examine the evolution of Apple II DOS, we will see that it was possible from the beginning for DOS 3.2 and 3.3 to access up to 400K per disk in its catalog structure; however, the low-level disk access routines built-in to DOS were ONLY for the Disk II).

So what changes DID occur in Apple II disk storage? Between 1978, when Apple released their original Shugart 5.25 inch floppy drives, and 1984, nothing much changed. Third party company produced patches that modified DOS 3.2 (and later DOS 3.3) to work with larger drives;

from eight-inch floppy drives to hard disks (a whole 10 megabytes for only $5,350 from Corvus!<2>) to other various short-lived innovations, all made to try to end the "floppy shuffle". (One of the more interesting ones put five floppy disks into a cartridge, and through software made them appear to the computer as one large disk drive). Eventually Apple decided that the aging Disk II mechanism needed a face lift, and they introduced in the DuoDisk in May of 1984. This was essentially two Disk II drives in a single cabinet, with a special controller card. The drive mechanism was improved to better read half-tracks on disks (which some copy-protected software used), and at $795 was priced to be less expensive than buying two of the older Disk II drives with a controller card.<3> The most important advantage of this new design was an elimination of the "fried disk drive" problem that happened constantly with the older design. The old Disk II controller had two connectors, one for each Disk II drive that could be connected. The problem was the in the design of the connector; like the game paddle plugs for the original Apple II and II Plus, the plugs for the Disk II drives were simply a series of pins that had to be properly aligned for the drive to function (similar to the delicate pins on a computer chip). If you tried to attach the plug in such a way as to accidentally shift the pins over by one, it would burn out the motor on the disk drive, requiring a trip for repairs to the local Apple dealer. The new DuoDisk design made connection of the disk mechanism to the controller foolproof.

With the release of the Apple IIc in April 1984 came an external Disk II drive that was designed to plug into the new disk port in the back of the IIc, and was the same color and design as the IIc case. The Disk IIc was specific to the Apple IIc and

could not be used with any older version Apple II, since it used a new, unique connector. However, since it was more expensive than a used Disk II drive, many users found out how to make a conversion cable to connect the older drive to the disk port; some even went the other direction and found ways to connect the new drive to the older Disk II controller cards for the II Plus and IIe.

The next small evolutionary step in disk storage technology for the Apple II was introduced in June 1985, with the release of the UniDisk 5.25. This drive was designed with the same appearance as the DuoDisk, but was a single 5.25 drive. It was also designed to allow one drive to be "daisy-chained" to another (one disk could plug into the back of another, forming a "chain"), instead of the older method of connecting each drive separately to the disk controller card. Its beige color was designed to match the original Apple IIe.<4>,<5>

The last version of the Disk II was called the Apple 5.25 drive. It was identical to the UniDisk 5.25 drive, except for its case, which was designed in the platinum color to match the Apple IIGS and the platinum IIe. The connector it used allowed it to also be connected in a daisy-chain fashion.<5>

Now A Word From Our Sponsor: Basic Disk Storage

Let's diverge for a moment from discussing specific Apple disk products and turn to a description on how the data are stored on a disk. There are two important concepts that you need to understand to see why some methods of data storage are "faster" than other methods. The first concept is the physical data layout on the disk, and the second concept is the "logical" data layout.

The physical layout of data on a disk is important to the hardware of the disk drive. If the computer tells the disk drive to retrieve data from

the disk, it has to be able to tell the drive exactly WHERE on the disk surface that data are stored. Most disk drives in use today (and when Steve Wozniak designed the original Disk II) store data on disks that are round, magnetically coated pieces of plastic that spin within a protective sleeve. The older 5.25 inch and 8 inch disks were "floppy" disks because they used a flexible protective sleeve (unlike the older yet but larger capacity "hard" or fixed disks, which usually could not be removed). The newer 3.5 inch disks are also made of the same magnetically coated plastic, but their protective sleeve is a hard shell. Within its sleeve the thin plastic disk spins around rapidly while the disk drive motor is on.

When a disk is formatted, certain addresses are written to the disk surface in a pattern that is known to the program (the disk operating system) used by the computer controlling the disk drive. Most computers divide the disk surface up into concentric rings (called "tracks"), and each track is divided up into segments called sectors or blocks. Each segment holds a specific number of bytes of data; for the Apple II, this has been either 256 bytes (sectors on 5.25 disks) or 512 bytes (blocks on newer disk devices). The number of sectors or blocks per track differs, depending on the device in question; what is important is that the disk operating system knows how to get to the right block when a request is made of it.

The second concept, that of the "logical" layout of the disk, has to do with the way in which the disk operating system organizes the physical blocks on each track. Imagine a phonograph record on a turntable (some of you still own those, don't you?) It physically resembles a floppy disk; it is just larger in size and is not "floppy". Mentally take a white marking pen and draw lines through the center of the record, across the entire surface from side to side, making the record resemble a pizza that has been cut up into wedges. Now draw a series of concentric circles,

from the outside of the record down to the center. Each ring will, of course, be smaller than the previous ring. The rings you have drawn represent "tracks" on our simulated floppy disk, and the lines running through the center of the record represent the division of each track into blocks. Suppose we drew enough lines to divide the record up into twelve "pieces" (of pizza). That means that each "track" has twelve "blocks".

Now that you have your disk divided up (you just "formatted" it!), let's store some data on it. Numbering each "block" from one to twelve (like the numbers on a clock), let's put a checker into each block on the first (outermost) "track" (yes, a checker. You know—from the game?) Repeat the process on the second track, then the third, and so on, as far as you can go. Eventually you won't be able to fit checkers into the blocks, because they will get too small. (This points out one of the limits of floppy disks; at some point the available space on the disk becomes so small it is unusable. A standard 5.25 disk for the Apple II can have anywhere from 35 to 40 tracks (Apple has always supported only 35 tracks), while the 3.5 disk has 80 tracks. The checkers we have put in the "blocks" on this disk have also been labeled, but with the letters "A" through "L" for the first track, and "M" through "X" for the second track, and so on.

Turn on the record player. If you hold your hand over one spot on the first track on the record, you can see the lettered checkers as they move past. As it goes by, grab the "A" checker, then the "B" checker, and so on. Likely, after picking up checker "A" (on block 1), you had to wait for an entire rotation of the record before "B" comes by on block 2. The same goes for "C", "D", and so on. In computer terms, the "interleave" on this disk is 1 to 1 (written as 1:1). If you were EXTREMELY fast, you could pick up "A", "B", "C", etc. as quickly as they went by, without having to wait for the next revolution of the record. While few of us

would be that fast, many of us could pick up a checker after about four went by that we didn't need. "Reload" your data on this disk, this time putting checker "A" on block 1, then checker "B" on block 5, checker "C" on block 9, checker "D" on block 2, check "E" on block 6, and so on. Now, as the record spins, you might be able to pick up "A", "B", "C", and so on without having to wait for the next revolution of the record. This would be (approximately) a 4:1 interleave. With this "logical" layout, you can pickup (load) checkers from the disk, and replace (store) checkers on the disk more efficiently. If your hands are still not fast enough, you may need to increase the interleave to 6:1 or even 8:1. If your hands are faster, you could possibly use a 3:1 or 2:1 interleave.

This is roughly what happens with disk access. A disk device and operating system that is extremely quick about processing the data it reads off a disk can have a short interleave (1:1 or 2:1). A slower disk device or operating system may need to use a 4:1 or higher interleave to work most efficiently.

One last note: Because a track on a disk contains a continuous stream of data bits, Apple drives were designed from the beginning to use "self-synchronization" to be able to tell one byte from the next. This continuous series of bits would be similar to having a paragraph of text with no spaces between words. If a sentence read "GODISNOWHERE", does it mean "GOD IS NOWHERE" or "GOD IS NOW HERE"? Some method is needed to let the computer doing the reading know where the "spaces" between bytes exists. I won't go into detail on exactly how this is carried out, but suffice it to say that some bytes on the disk are reserved for this decoding process, and so the true data bytes are specially encoded to not be mistaken for the self-sync bytes. The process of decoding these "raw" data bytes is called de-nibblization, and translates about 700 of the raw bytes read directly from the disk into 512 true

data bytes. This is another part of the overhead necessary when reading from or writing to the disk; it would be similar to having to draw something on each checker with a marker as it was removed from the spinning record described above.

The UniDisk 3.5 and Apple 3.5

The first new disk drive that Apple released after the original Disk II was a 400K, single-sided 3.5 inch drive for the original Macintosh. Then, in September 1985 Apple finally released a similar drive for the Apple II series, one that was not simply a cosmetic improvement of the original Disk II drive. The UniDisk 3.5 drive was a double-sided version of the Mac drive, and could hold 800K of data. The only connection that this new drive had with the original 5.25 drives was a chip used on its controller card; this IWM chip (for "Integrated Woz Machine") put the function of the original Disk II controller onto a single chip, plus the enhancements needed to operate this higher density drive.<4> Apple's design for the UniDisk 3.5 was unique, in that it used a modification to Sony's design that varied the speed of disk rotation, depending on which concentric track was being accessed. This change made it possible for data to be packed compactly enough in the smaller inner tracks to gain an extra 80K beyond the 720K that was originally possible.

The UniDisk was directly supported by the newer Apple IIc motherboards (as mentioned in the previous part of this History), but for the older Apple II's a special controller card was required. The UniDisk 3.5 was designed as an "intelligent" drive, and had a self-contained 65c02 processor and memory to temporarily store ("buffer") data being read from or written to the disk. This was necessary because of the slow 1 MHz speed of the 6502 processors in the Apple II; they could not keep up with the faster data transfer rates possible with the 3.5 disk mechanism, plus the overhead of de-nibblization. This extra processing did cut down the speed in the UniDisk

data transfer rate, but compared to the older Disk II drives it seemed MUCH faster.

With the release of the Apple IIGS in September 1986 came a new version of the 800K 3.5 drive called the Apple 3.5. This mechanism could be used on either a Mac or Apple II, fitting into the trend at Apple at making peripherals compatible between the two computers. The major difference between this drive and the original UniDisk 3.5 was that it had been lobotomized to be a "dumb" drive. Gone was the internal 65c02 processor chip used in the UniDisk 3.5 (which made it an "intelligent" drive) and the ability of the drive to buffer its own read and write operations. The newer Apple 3.5 drive did away with the extra circuitry, leaving it to the computer to handle direct control of the drive. This could be done in the IIGS because of its faster 65816 microprocessor, which could keep up with the higher rate of data transfer. Recall the above discussion of interleave? The original UniDisk 3.5 worked best with an interleave of 4:1, but the Apple 3.5 used 2:1 interleave and could do disk reads and writes faster. Disks formatted with either drive were usable with the other one, but would be slower on the "foreign" drive.<5>

Overall, Apple released four versions of 3.5 drives between 1984 and 1986. First was the 400K drive used on the original Macintosh, then the 800K UniDisk 3.5 (which wouldn't work on the Mac), then an 800K drive for the Mac (which wouldn't work on the Apple II), and finally the Apple 3.5 drive, which worked on the Apple IIGS and the Mac, but not the IIe and original IIc.<5>

The Apple IIC Plus: Hardware

Recalibrating our special time-travel card to focus on the final 8-bit version of the Apple II, let's travel to mid-1987. It was at this time that someone at Apple decided that the IIc needed to be upgraded. Shortly before July, three years after its original 1984 introduction, it was felt that the Apple IIc would benefit from the larger capacity Apple 3.5

drive as its internal drive. The primary intent was to make only this change, while leaving the rest of the IIc as it was.

Trying to use the Apple 3.5 drive in the Apple IIc was certainly an engineering problem. As mentioned above, the 1 MHz 65c02 was simply not fast enough to take raw data off the Apple 3.5 drive, de-nibblize it into usable data, and pass it to the operating system. The "intelligent" 3.5 drive was designed in the first place for that very reason. To solve the problem, Apple contracted with an outside firm to design a special digital gate array that made it possible for the 1 MHz 65c02 to just barely keep up with the data transfer rate from the Apple 3.5 drive. In accomplishing this, it needed an extra 2K of static RAM space to de-nibblize the raw data from the 3.5 drive. This extra memory had to be available OUTSIDE the standard Apple IIe/IIc 128K RAM space, since there was simply not enough free memory available to spare even that little bit of space. The code Apple engineers wrote to use the drive was SO tight that there were EXACTLY enough clock cycles to properly time things while controlling the drive. (Each assembly language instruction takes a certain number of clock cycles; these cycles have to be taken into account for timing-sensitive operations such as disk and serial port drivers).

To support older Apple II software that came only on 5.25 disks, the disk port on the back was now changed to handle not only external 3.5 drives (either UniDisk 3.5 or Apple 3.5), but also up to TWO Apple 5.25 drives which could be chained together (the same drives used with the Apple IIGS). These could be chained together as could the 3.5 drives. The IIc Plus, then, could have three additional drives attached, in any mixture of Apple 3.5, UniDisk 3.5, or Apple 5.25 drives.<6>

The IIc Plus design was not thought out completely from start to finish, however. After they did the work with the special gate array to make the original IIc architecture

work properly, someone decided that it was not a good idea to release a 1 MHz computer in 1987. People want speed, they reasoned; look at the world of the IBM PC and its clones, where each year faster and faster models are released. They decided then to retrofit the new IIc with a faster 4 MHz version of the 65c02. That change, had it been done from the start, would have made engineering the internal 3.5 drive simpler; they could have just used the processor at 4 MHz for 3.5 drive access, and then used the true system speed (as selected by the user) for all other functions. The complicated gate array would not have been necessary. But, since the faster speed was added as an afterthought, and the project was under a tight schedule, the gate array design was not changed.

To accomplish the faster processor speed for the IIc Plus, Apple went to another outside firm, Zip Technologies. This company had already·marketed an accelerator, the Zip Chip, that was popular as an add-on product for existing Apple II computers. Users could simply remove the 6502 or 65c02 chip in their computer, replace it with the special Zip Chip, and suddenly they had a computer that ran up to four times as fast. Apple licensed this technology from Zip, but engineers balked at actually using the Zip Chip itself for the IIc Plus. Part of this was because of the size of the Zip Chip. The chip was shaped like a standard integrated circuit, but was thicker vertically than a basic 65c02. Inside the extra space was a fast 65c02 processor, plus some caching RAM, all squeezed into a space that would fit even into the original Apple IIc (where space was at a premium). (The Zip Chip "cache" is a piece of RAM memory that is used to hold copies of system memory that the processor is frequently accessing. For instance, if a lot of graphics manipulation is being done by a program, the caching RAM would hold a copy of part of the graphics RAM, and could access it much faster than the standard RAM. This is part of what

makes an after-market accelerator work).

Zip had wanted Apple to buy their Zip Chip and simply use that product in the IIc Plus. Obviously, this would have been to Zip's advantage financially. However, the thicker vertical size of the Chip made testing the completed computer more difficult, and it would be a problem to isolate product failures to the Zip Chip, instead of something else on the motherboard. By using a 4 MHz 65c02 and two 8K static RAM chips as separate components in the IIc Plus, Apple engineers could ensure that it would work and be available in a large enough volume for production. When they were designing the IIc Plus, Zip Technologies could not guarantee they could provide reliable products in the volume Apple needed.

The IIc Plus did not have the 12 VDC input on the back panel as did the earlier IIc's; instead, the power supply was built-in. This was not because it was necessarily a better design, as an internal power supply was actually less reliable ultimately than the external power supply. (It exposes the internal components to higher levels of heat over the lifetime of the product). But because many people had criticized Apple about the IIc external power supply (called a "brick on a leash" at Apple), that they had decided to make it internal on the IIc Plus as it was on all their other products. This change apparently did not cause any significant problems, as few people were actually trying to use the IIc as a "portable" computer (with a battery pack).

The memory expansion slot on the IIc Plus was not compatible with the memory cards that Apple had produced for the older IIc. This was primarily a timing problem; it was not because the RAM chips in the memory card were not fast enough to keep up with the 4 MHz speed of the IIc Plus. (Older IIc users can use an Apple Memory Expansion card with an 8 MHz Zip Chip with no problems). The IIc Plus also had an additional connector at the opposite

end of a memory card plugged into the expansion slot. Signals from port 2 were made available at that end, so third party companies could make a card that was a combination RAM card and internal modem. However, this never did come about (see below).

Other changes in the IIc Plus included a slightly redesigned keyboard and mini-DIN-8 connectors on the back panel for its serial ports (to be more compatible with Apple's new Macintosh and IIGS keyboards).

One interesting note: John Arkley, one of the engineers working on the project and a long-time Apple employee, campaigned long and hard to take things a step further. He wanted them to take an Apple IIGS motherboard, remove the slots, change the ROM to support only the internal "slots", and release a IIGS in a IIc case. He felt it would have made a great portable, non-expandable IIGS, but could not get anyone who could approve the plan to get interested in the idea.

The Apple IIC Plus: Firmware

The IIc Plus ROM was called revision 5 (the previous Revised Memory Expansion IIc was labeled as revision 4). The main changes present were the ones that supported the internal Apple 3.5 drive. Firmware on the new IIc was not any larger than the 32K on the previous models, but it did use the entire space (the previous IIc didn't use the last 8K available in the ROM).

One minor bug that slipped by in the IIc Plus firmware was an inability to deal with 400K (single-sided) 3.5 disks. There were few commercial software packages that came on such disks, however.[7],[8]

The Apple IIC Plus: Introduction

In September 1988 the Apple IIc Plus was introduced to considerably less fanfare than the original IIc was in April 1984. There were no promises of "Apple II Forever" this time; instead, it warranted little more than a press release in various Apple II magazines of the time. Its selling price was $675 (or $1,099 with a color monitor). This was remarkable, considering that the original Apple

IIc WITHOUT a monitor sold for nearly double the price ($1,295) and had far less capacity and power than this new version. Some models of the IIc Plus were even shipped with 256K of extra memory already added. It was faster than any other Apple II ever produced (including the 2.8 MHz IIGS), and was probably the finest 8-bit computer Apple ever produced.

The Apple IIC Plus: Less Than A Success

Early on, the Apple IIc Plus was a big seller, and by January 1989 it was above forecasted sales levels. However, the biggest hurdle that the IIc Plus had to overcome was not the external marketplace, but rather the internal market opinions at Apple Computer, Inc. Since Macintosh-mania was still in full swing at Apple, and that younger brother of the Apple II was getting most of the attention from management, the IIc Plus (as well as the IIGS) suffered. It was not because of a lack of capability, but primarily from failure to thrive due to inadequate home nutrition, so to speak. Also, the IIc Plus had the same problem as the original Apple IIc; customers seemed to want the IIe with its slots, or the greater power of the IIGS.

There were some products that were designed by third-party developers for both the IIc and IIc Plus that never made it to the market for various reasons. Applied Ingenuity (later known as Ingenuity, Inc.) had two products that would have markedly increased the portability of the IIc/IIc Plus. One was an internal hard disk they called "CDrive", which would have replaced the Apple IIc or IIc Plus internal floppy disk drive (converting it into an external floppy drive). Even more unique was "CKeeper", which was a multi-function card with many features. It could hold up to 1.25 MB of extra RAM; it had a clock/calendar chip that was ProDOS compatible; it had firmware routines to support dumping text or graphics screens to the printer; it could function as a built-in assembly language program

debugger; and best of all, a feature called RAMSaver, which maintained power to the RAM chips during a power failure or if the power switch was turned off. Both of these products never saw the light of day, primarily because the company went out of business before they could be finished.<9>

Chinook Technologies actually finished design on an internal modem for the IIc Plus, but never released it. This card, 1.5 by 6 inches in size, would have mounted inside the disk drive shield. It connected to a small box attached to the outside of the IIc case, where there were cut-outs provided by Apple for connection of an "anti-theft" cable. This external box had phone jacks for the phone line and a telephone, just like most external modems. Undoubtedly it never was released because of Apple's indifference towards the IIc Plus.<10>

With inadequate support by Apple marketing, third-party hardware and software developers had little motivation in designing any new products for the IIc Plus. Therefore, no unique products ever emerged on the market to take advantage of its features. Finally, in September of 1990 the IIc Plus was discontinued by Apple, leaving the platinum Apple IIe and the Apple IIGS as the remaining bearers of Wozniak's legacy.

NEXT INSTALLMENT: The Apple IIGS

NOTES

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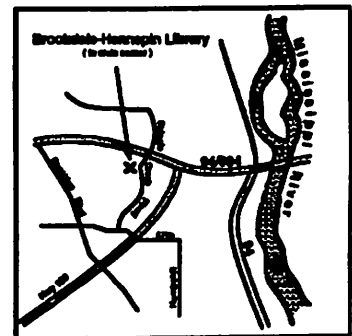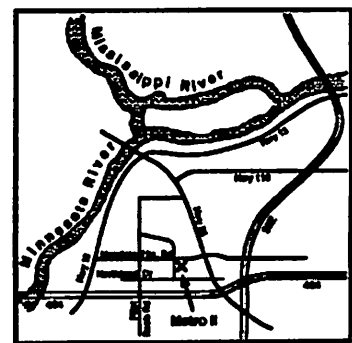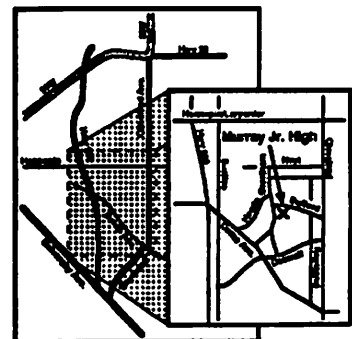<7> Weishaar, Tom. "Ask Uncle DOS", OPEN-APPLE, Jan 1989, p. 4.91.
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Submitted by Gregory L. Carlson

SIG Maps

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For Election of &mini'app'les Board of Directors 1994-1995

Instructions:

1) Vote for one and only one candidate per office. Please use an X.

2) If you wish, use the blank space to write in another candidate. Be sure to fill in the ☐ with an X.

3) When you have completed your ballot, fold the bottom edge up to the line indicated and flatten the crease. Fold the top edge down and flatten the crease.

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5a) Place a 29-cent stamp where indicated and mail. Mail early because only ballots received in our P.O. Box on or before May 27, 1994 will be counted.

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[_____] is for write-in nominees. (I) indicates incumbant.

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(128, 512, Plus, SE, Classic)
☐ Other 68000 (Mac Portable, PowerBook 100)
☐ Mac 68020 (II, LC)
☐ "Toaster" Mac – 68030
(SE/30, Classic II, Classic III, Performa 200)

☐ Mac IIx, IIcx
☐ Mac IIsi, IIci, IIfx, LC II, Performa 400
☐ Mac IIvx, Performa 600
☐ PowerBook 140–180
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What attachments or peripherals do you use?

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ProDOS 8	1.9	07/16/90	5.25/3.5"
Apple IIGS			
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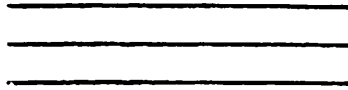
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