

inCider



Apple II/Macintosh

AN IDG  
COMMUNICATIONS  
PUBLICATION

June 1993

USA \$3.95

Canada \$4.95

# MASTERING APPLEWORKS

## TIPS, RESOURCES, UPGRADES, ADD-ONS

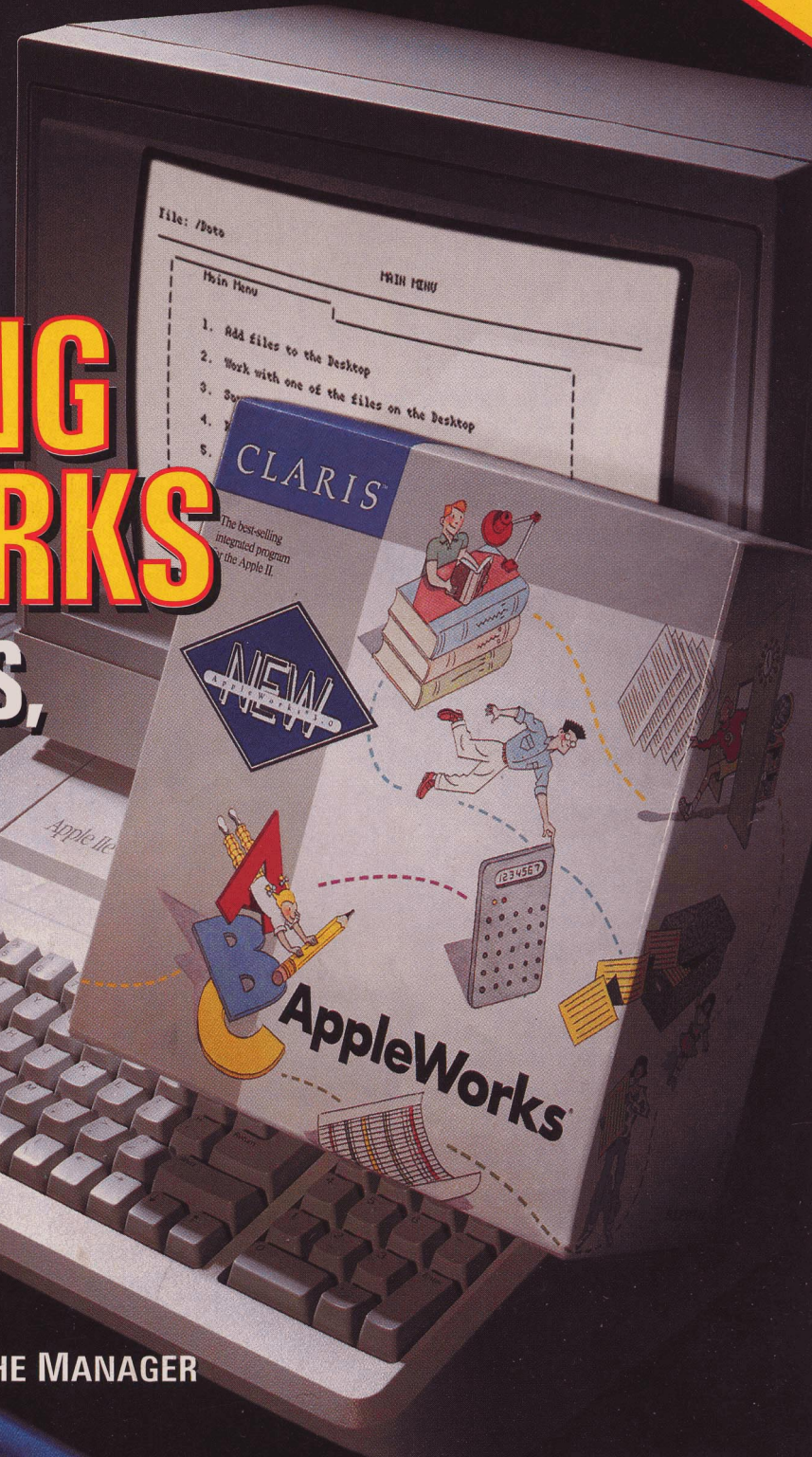
### Movie Mania

The Beatles  
on CD-ROM p. 28

### REVIEWS



- SWITCH-IT! VS. THE MANAGER
- ACCUDRAW
- TALKING FINGERS
- IT'S A BIRD'S LIFE
- M4: SHERMAN TANK SIMULATOR
- LOCAL EXPERT





# SYSTEM 6 BONUS

*“Quality Computers’  
System 6 Bonus Pack...the  
most cost-effective way to  
add value and fun to  
your Apple IIGs.”*

—The AppleWorks Educator



## System 6

StyleWriter printer support.  
Macintosh, Apple DOS 3.3, and  
Apple Pascal disk support.

A completely redesigned Finder—  
faster, friendlier, and more power-  
ful than ever before.

The Finder can be set to avoid  
grinding your 5.25" drives.

When the computer asks you to  
insert a disk it needs, you no  
longer have to hit Return—the  
computer detects it automatically.

The screen no longer switches to  
text mode and back to graphics  
when launching some Desktop  
programs.

New music tools and applica-  
tions to allow new programs  
to sound even better.

Media-control toolset  
and desk accessory to al-  
low easier integration of  
video with your multime-  
dia presentations.

Universal Access fea-  
tures for physically  
handicapped users.

More tools for pro-  
grammers to write  
great programs.

Simpler and faster  
hard drive  
installation.

Great  
documentation.

## Bonus Pack

**FlashBoot.** What is faster than a  
speeding disk drive? A RAM disk.  
FlashBoot lets you automatically set up  
a super fast, super-convenient RAM  
disk.

**The Apple II Enhancement  
Guide.** This handy little book is  
packed with information to help  
you upgrade your Apple II. It  
covers RAM, hard drives, accel-  
erators, the Finder, and more.

**Clip Art.** We're throwing in over  
100 beautiful clip art images, per-  
fect for desktop publishing or hy-  
permedia applications.

**Clip Sounds.** Because the IIGS's  
sound capacity is so great, we're also  
including over 50 digitized sound  
files. Some are classics while some  
are the newest on the market. They go  
great in HyperStudio and other sound  
programs, or you can have music play-  
ing in the background while you work.

**Icons.** Over 50 fun, useful icons.

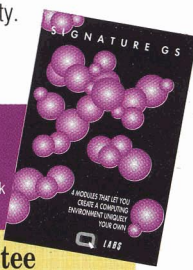
**Desk  
Accessories.** Just to  
give you more to choose  
from, we're giving you  
several handy desk acces-  
sories including: Enhanced  
Calculator, Scrapbook, Games, and  
more.

**Fonts.** Using the same font for ev-  
erything is very un-cool, so our  
Bonus Pack includes over 30 dis-  
play and text fonts.

**VIDEO.** Our 1-hour video takes you from  
installation of System 6 to moving through  
the Finder with speed and agility.



Get Signature for only  
**\$19.95**  
when you buy the System 6 Bonus Pack  
(Reg. \$29.95)



You get System 6, The QC  
Bonus Pack, FlashBoot, The  
Apple II Enhancement Guide,  
the video and complete  
documentation for only

**\$79.95**

|                           |       |
|---------------------------|-------|
| System 6 w/QC Manual..... | 29.95 |
| System 6 Manual only..... | 12.95 |
| System 6 Video only.....  | 29.95 |
| Bonus Pack only.....      | 59.95 |

30-day money back guarantee

**1-800-777-3642**



Quality Computers



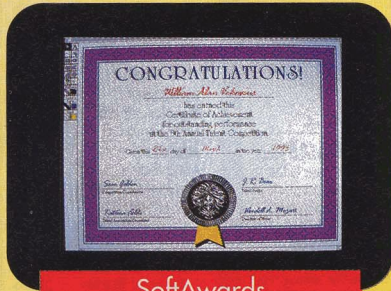


# GET IN ON THE BEST-KEPT SECRET IN THE SOFTWARE INDUSTRY!

Plus... **FREE SOFTWARE!**

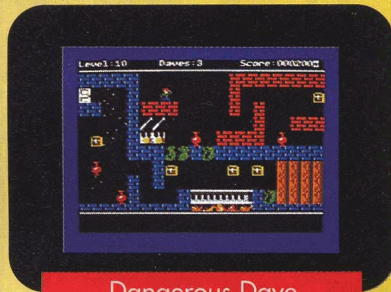
**It's not a magazine! It's not a book or video! It's a software subscription!**

**DISKWORLD** for the Macintosh...



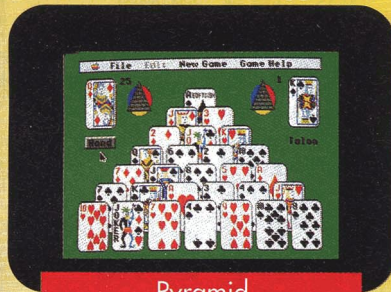
SoftAwards

**SOFTDISK** for the Apple II...



Dangerous Dave

**SOFTDISK G-S** for the Apple IIGS...



Pyramid

Now you can get in on the secret that's rocking the software industry—software subscriptions for your Mac®, Apple II®, or IIGS®. And you can try out an issue **RISK-FREE!**

With a software subscription you'll get an exciting issue packed with programs each and every month for *less than \$2 a program!*

You'll get fun games, puzzles and educational programs to make the most of your time off. . .functional utilities to help you get the most from your computer. . .practical programs to help you manage your money. . .useful programs to manage your time. . .and graphics to put more oomph into your ideas!

Each issue of **DISKWORLD**® and **SOFTDISK**™ contain 5 to 7 original programs, 3 to 4 programs for **SOFTDISK G-S**™, AND tech support is **FREE** with our 1-800 hotline!

## GET IN ON THE SECRET—TRY A RISK-FREE ISSUE!

Don't take our word for it—why not try an issue **RISK-FREE** and see for yourself!

Call **1-800-831-2694** now or send in the coupon below to try an issue **RISK-FREE**. Review your first issue.

If you're not completely satisfied, for any reason, return our bill marked "cancel" and you'll owe nothing! Either way, the first issue is yours to keep **FREE!**

## PLUS, GET A FREE GIFT!

We're so sure that you'll love your new software subscription that we'll send you a Special Bonus Disk with your paid subscription. It's yours **FREE** just for subscribing.

So get in on the secret! Try **DISKWORLD**, **SOFTDISK** or **SOFTDISK G-S** now **RISK-FREE!**

CALL NOW

**1-800-831-2694**  
OR MAIL IN THE COUPON BELOW

**SOFTDISK**  
PUBLISHING

P.O. Box 30008  
Shreveport, LA 71130-0008

System Requirements for Diskworld: A Macintosh Plus or later model Macintosh, 1MB memory. Softdisk: An Apple II+, IIe, IIc+, IIe, IIe (enhanced) or Laser 128 computer; a 3.5" or 5.25" disk drive; & 64K memory (128K memory recommended). Softdisk G-S: An Apple IIGS, a 3.5" disk drive & 1MB memory. (A hard drive & 2MB memory are recommended).

**YES!** I want in on the secret! And I want the **FREE** Bonus Disk, too! Send my **RISK-FREE** issue of the subscription I've checked below. If I like what I see, I'll pay the amount shown for my 3-month trial subscription, which includes my first issue, and then I'll receive my Special Bonus Disk—**FREE**, just for subscribing.

- DISKWORLD** for the Macintosh  
3 months \$29.95—about \$1.50 a program!
- SOFTDISK**\* for the Apple II  
3 months \$19.95—about \$1 a program!
- SOFTDISK G-S**\* for the Apple IIGS  
3 months \$29.95—about \$2.50 a program!

Please check disk format:  
 3.5"     5.25"

Trial Offer available in U.S. ONLY. If outside U.S., call 1-318-221-8718 for information. Allow 15 days for delivery.

Name \_\_\_\_\_

Address \_\_\_\_\_

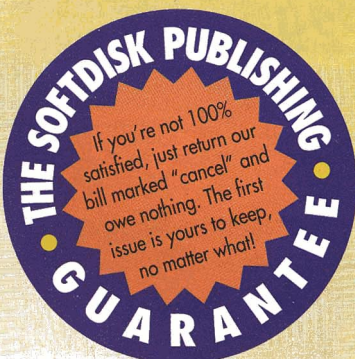
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone # (\_\_\_\_) \_\_\_\_\_

\*Apple IIGS owners can try both **SOFTDISK** & **SOFTDISK G-S** **RISK-FREE**. They're entirely different, and with our combo rate, you can then get both for only \$39.95—about \$1 a program!

**MAIL TO:** Softdisk Publishing • P.O. Box 30008 • Shreveport, LA 71130-0008 • **1-800-831-2694**

IN063



Circle 291 on Reader Service Card.





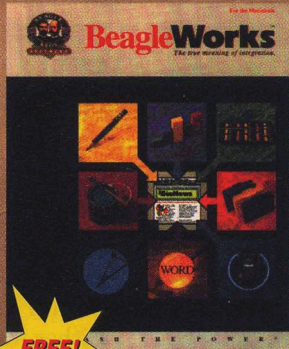
# QUALITY COMPUTERS

Ask about overnight delivery 

## BeagleWorks

7 integrated programs  
One low price

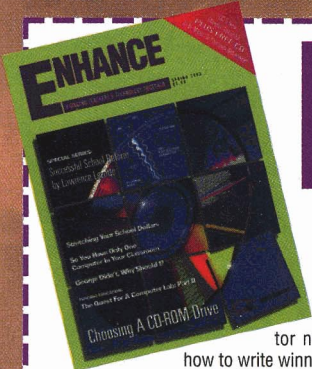
There are lots of integrated programs around, but only BeagleWorks is truly integrated. With its unique In-Context Editing feature, you can edit each element in a document without ever leaving the document! BeagleWorks gives you: Word Processor • Database • Spreadsheet • Communications • Draw • Paint • Chart.



**FREE!**  
**WordPerfect Works Upgrade**

**\$29<sup>95</sup>**

**A \$299 Value  
FREE With This Offer**



# ENHANCE

Since we introduced Enhance over 6 years ago, it has grown from a simple-yet-wonderful newsletter into one of the most respected and widely-read educational technology publications in America. Every issue of Enhance contains the kind of information the computer-using educator needs to make an impact in the classroom—like how to write winning grants, multimedia applications, telecommunications, and product reviews and announcements for Apple II, Macintosh, and IBM. It is written by a nationwide network of educators, like yourself, who want to reach their students through computer technology.

Enhance also includes our catalog — full of all the hardware and software you need for your Apple II, Macintosh, or IBM.

Quality Computers has been publishing Enhance for over 6 years. It's free to all QC customers, or you can call for your free subscription today!

"We enjoy reading Enhance and look forward to receiving it. It is well written, understandable, pertinent, and a great source of information." —Everett Foust

"Thank you for providing the opportunity for schools like ours to have a chance at getting some of the technology that can bring our computer program into the 90's."  
—Sandy Kowalczyk, Key School, Annapolis, MD

## Get ENHANCE free!

Join the hundreds of thousands who have enjoyed Enhance for over 5 years. Get your free subscription today! (Foreign subscribers add \$20 U.S. funds)

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone (\_\_\_\_\_) \_\_\_\_\_

Clip and mail to: QUALITY COMPUTERS, Enhance, P.O. Box 349, St. Clair Shores, MI 48080

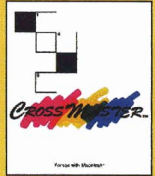
Circle 136 on Reader Service Card.

## M A C I N T O S H

### SOFTWARE

|                               |                          |       |                           |        |
|-------------------------------|--------------------------|-------|---------------------------|--------|
| <b>ABRACADABA</b>             | KidBAG                   | 99.95 | Reader Rabbit             | 34.95  |
| Design Your Own Home          | KidTYPE                  | 44.95 | Spellbound                | 34.95  |
| Sprout                        |                          |       | The Writing Center        | 49.95  |
| <b>ADOBE</b>                  | <b>EDMARK</b>            |       | <b>MAXA</b>               |        |
| Premier                       | KidDesk                  | 29.95 | Alert                     | 119.95 |
| <b>ALDUS</b>                  | Millie's Math House      | 29.95 | Snooper                   | 119.95 |
| Gallery Effects               | <b>FIFTH GENERATION</b>  |       | <b>MAXIS</b>              |        |
| Intellidraw                   | AutoDoublor              | 49.95 | Sim Ant                   | 36.95  |
| PageMaker                     | DiskDoublor              | 49.95 | Sim City                  | 36.95  |
| Personal Press                | <b>FOCUS DEVELOPMENT</b> |       | Sim Earth                 | 42.95  |
| SuperPaint                    | CrossMaster 1.12         | 44.95 | Sim Life                  | 44.95  |
| <b>APPLE</b>                  |                          |       | <b>MECC</b>               |        |
| At Ease                       |                          |       | Easy Color Paint          | 32.95  |
| Macintosh PC Exchange         |                          |       | Geometric Golfer          | 47.95  |
| True Type Font Pack           |                          |       | Number Munchers           | 29.95  |
| <b>BAUVILLE</b>               |                          |       | Oregon Trail              | 29.95  |
| Award Maker Plus              |                          |       | Super Munchers            | 29.95  |
| Badge Maker                   |                          |       | USA GeoGraph              | 29.95  |
| Laser Award Maker             |                          |       | Word Munchers             | 19.95  |
| <b>BERKELEY</b>               |                          |       | <b>MICROSOFT</b>          |        |
| After Dark                    |                          |       | Microsoft Word 5.0        | 299.95 |
| After Dark Bundle             |                          |       | Flight Simulator          | 44.95  |
| More After Dark               |                          |       | <b>MINDPLAY</b>           |        |
| Star Trek Screen Saver        |                          |       | Ace Detective             | 54.95  |
| <b>BOGUS PRODUCTIONS</b>      |                          |       | Ace Reporter              | 54.95  |
| Jam Session                   |                          |       | <b>MINDSCAPE</b>          |        |
| Super Studio Session          |                          |       | Crossword Magic 4.0       | 29.95  |
| <b>BRODERBUND</b>             |                          |       | <b>ORANGE CHERRY</b>      |        |
| Algebra                       |                          |       | Talking                   |        |
| BannerMania                   |                          |       | Dinosaur Reader           | 48.95  |
| Calculus                      |                          |       | Mac Classroom             | 48.95  |
| Carmen Am. Past               |                          |       | Mac Reader                | 48.95  |
| Carmen Time                   |                          |       | <b>PELICAN</b>            |        |
| Carmen USA                    |                          |       | Early Games for           |        |
| Carmen World                  |                          |       | Young Children            | 34.95  |
| Geometry                      |                          |       | <b>POWER UP SOFTWARE</b>  |        |
| Kid Pix                       |                          |       | Calendar Creator Plus     | 49.95  |
| Kid Pix Companion             |                          |       | <b>QUALITY COMPUTERS</b>  |        |
| MacGlobe                      |                          |       | Alphabet Coloring Disks   |        |
| MacUSA                        |                          |       | for Kid Pix               | 19.95  |
| Physics                       |                          |       | <b>SALIENT</b>            |        |
| Playroom                      |                          |       | Auto Doublor              | 64.95  |
| Spelunx                       |                          |       | <b>SOFTWARE TOOLWORKS</b> |        |
| The Print Shop                |                          |       | Chessmaster 2100          | 29.95  |
| <b>CE SOFTWARE</b>            |                          |       | Mavis Beacon Typing       | 32.95  |
| CalendarMaker 3.0             |                          |       | U.S. Atlas                | 44.95  |
| <b>CLARIS</b>                 |                          |       | World Atlas               | 44.95  |
| CALL FOR ACADEMIC PRICING     |                          |       | <b>SYMANTEC</b>           |        |
| Clarix CAD                    |                          |       | Norton Utilities          | 99.95  |
| ClarixWorks 2.0               |                          |       | Symantec Antivirus        | 69.95  |
| FileMaker Pro                 |                          |       | <b>TECHBYTE</b>           |        |
| HyperCard 2.1                 |                          |       | ClassMaster               | 79.95  |
| MacDraw II                    |                          |       | <b>TIMEWORKS</b>          |        |
| MacDraw Pro                   |                          |       | Publish It! Easy 3.0      | 119.95 |
| MacPaint                      |                          |       | <b>TOM SNYDER</b>         |        |
| MacProject Pro                |                          |       | Decisions, Decisions      | Call   |
| MacWrite II                   |                          |       | Flood The Bad Guy         | 49.95  |
| <b>COMPU-TEACH</b>            |                          |       | Int'l Inspire             | 119.95 |
| Destination Mars              |                          |       | Jack & The Beanstalk      | 49.95  |
| Grade Quick                   |                          |       | TimeLiner                 | 49.95  |
| Joshua's Reading              |                          |       | <b>UNICORN</b>            |        |
| Stepping Stones               |                          |       | Math Wizard               | 32.95  |
| Studydate                     |                          |       | <b>VENTURA</b>            |        |
| <b>DATAVIZ</b>                |                          |       | Hands-On Math I           | 39.95  |
| MacLink Plus PC               |                          |       | Hands-On Math II          | 45.95  |
| MacLink Translators           |                          |       | for Teachers              | 22.95  |
| <b>DAVIDSON</b>               |                          |       | Math Clip Art             | 24.95  |
| Algebra Plus!                 |                          |       | Science Clip Art          | 22.95  |
| EarthQuest                    |                          |       | <b>WEEKLY READER</b>      |        |
| Ecology                       |                          |       | Stickybear's              |        |
| Headline Harry                |                          |       | Reading Room              | 34.95  |
| Katie's Farm                  |                          |       | <b>WORDPERFECT</b>        |        |
| KidWorks 2                    |                          |       | WordPerfect               | 299.95 |
| Math Blaster Mystery          |                          |       | <b>GAMES</b>              |        |
| Math Blaster Plus!            |                          |       | King's Quest V            | 42.95  |
| McGee                         |                          |       | Monopoly                  | 29.95  |
| McGee At Fun Fair             |                          |       | PGA Tour Golf             | 39.95  |
| Nigel's World                 |                          |       | Red Baron                 | 42.95  |
| Time Treks                    |                          |       | Scrabble                  | 29.95  |
| Your Personal Trainer         |                          |       | Spectre                   | 34.95  |
| <b>DR. T'S MUSIC SOFTWARE</b> |                          |       | Super Tetris              | 36.95  |
| Adv In Musicland              |                          |       | Tetris                    | 29.95  |
| <b>DS DESIGN</b>              |                          |       | Weltris                   | 24.95  |
| KidART                        |                          |       |                           |        |

**SPECIAL**



**CROSS MASTER**  
CrossMaster is the definitive program for creating custom crossword puzzles from word lists. Its ease of use and flexibility virtually remove the tedious work associated with building crossword puzzles.

**\$44<sup>95</sup>**

**SPECIAL**

**GREAT WAVE**

|                      |       |
|----------------------|-------|
| Decimals & Fractions | 49.95 |
| KidsMath             | 32.95 |
| Kids Time II         | 32.95 |
| NumberMaze           | 49.95 |
| ReadingMaze          | 39.95 |

**INLINE DESIGN**

|           |       |
|-----------|-------|
| Swamp Gas | 29.95 |
|-----------|-------|

**INSIGNIA**

|                    |        |
|--------------------|--------|
| AccessPC           | 59.95  |
| Entry Level SoftPC | 124.95 |
| SoftAT             | 299.95 |
| SoftNode           | 104.95 |
| Universal SoftPC   | 194.95 |

**KENT MARSH LTD.**

|            |       |
|------------|-------|
| FolderBolt | 75.95 |
|------------|-------|

**SPECIAL**



**PUBLISH-IT! EASY 2.1.9**  
This full-featured desktop publisher allows you to create professional-looking documents in minutes. Use the programs' built-in layout tools to overlap, re-position, and resize text and graphic elements on the page.

**\$29<sup>95</sup>**

**SPECIAL**

**LAWRENCE PRODUCTIONS**

|            |       |
|------------|-------|
| Lost Tribe | 29.95 |
|------------|-------|

**LEARNING COMPANY**

|                 |       |
|-----------------|-------|
| Math Rabbit     | 34.95 |
| Midnight Rescue | 34.95 |
| Outnumbered     | 34.95 |

CALL FOR YOUR FREE CATALOG 1-800-777-3642



Quality Computers™

ENHANCING EDUCATION



## FEATURE

### II Essentials: AppleWorks

by Warren S. Williams, Cathleen Merritt,  
 and Keith Bernhard .....38

In the third installment of our ongoing series on Apple II basics, we take a look at the most-popular word-processing, database-management, and spreadsheet software available for your system — and it's all in one convenient “integrated” package.

## DEPARTMENTS

### What's New

Thorns Among the Roses • Clinton Pz • New-Product Focus .....8

### Apple Clinic

“Most Wanted”: Hot Stuff • Lock Up • Speeding Ticket  
 • Serving Time • Fresh Start • Lifer.....16

### Reviews: Apple II

Switch-It! 1.0.2 vs. The Manager 1.0 .....20

Here's a question for the “power users” among you: Which top-of-the-line Apple computer lets you switch instantly between programs — without going through the hassle of quitting one and booting the next? It's the Apple IIGS, of course. Yes, courtesy of System 6 and a couple of neat new utilities called Switch-It! and The Manager, multitasking “for the rest of us” has finally arrived.

**Plus:** AccuDraw 1.1b • Talking Fingers 1.1

**Letters** .....48

## COLUMNS

**Shareware Solutions** • *Joe Kohn* .....12

“Fair Share”: The Apple II led the revolution that brought low-cost computing power to the people. Now it's on the leading edge of an even more-revolutionary movement that has software mail-order and retail-store sales personnel quaking in their wingtips: Freeware and shareware are changing the way you get Apple II programs.

**The Apple II Report** • *Carol S. Holzberg, Ph.D.* .....24

Hot off the press: quick reviews of recently released software.

## A + M A C

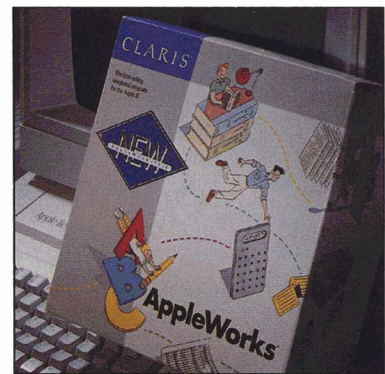
### News & New Products

“History Comes Alive”: **Who Built America?**, Voyager's CD-ROM depiction of the Gilded Age, includes archival film clips, Jacob Riis' famous photos, and transcriptions of the primary documents of the era.

**Plus:** “At the Movies”: Voyager's **A Hard Day's Night** brings the Beatles' 1964 feature film to CD-ROM. ....28

### Reviews

It's a Bird's Life • M4: Sherman Tank Simulator • Local Expert .....32



PAGE 38



PAGE 16

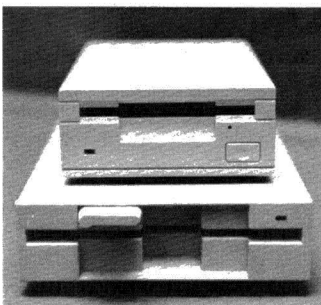


PAGE 20



PAGE 32





### MPD 5 1/4" DISK DRIVES FOR:

1 Year Warranty  
Parts & Labor  
100% Compatible  
Super Quiet  
Cable & Adaptor  
Included  
Daisy Chain Port Included

Apple II, GS, E, C, C+, +  
Mac LC with IIe Emulation  
LASER 128's

**\$129.00**

AMR 3 1/2" Disk Drive  
For Apple IIc+ & IIGS

**\$199.00**

## ★ ★ HARD DRIVES ★ ★

### For the Apple IIe

20 Meg (IDE)  
with Controller .....\$289.00  
40 Meg (IDE)  
with Controller .....\$339.00

### MPD 4 Meg GS CARD Fully DMA Compatible

1 Meg ..... \$99.00  
2 Meg .....\$139.00  
4 Meg .....\$219.00

### SUPER EXPANDER More Memory for APPLEWORKS

|       |         |          |
|-------|---------|----------|
|       | IIe     | IIc      |
| 256K  | \$62.00 | \$93.00  |
| 512K  | \$74.00 | \$105.00 |
| 1 Meg | \$98.00 | \$129.00 |

### Extended 80 Column Card With 64K for Apple IIe

100% Appleworks  
Compatible  
5 Year Warranty  
**\$38.95**

### 32K Internal Buffer for IMAGEWRITER II

**\$39.00**

### SUPER SERIAL CARD

100% Apple Compatible  
5 Year Warranty ..... \$54.95

### Graphics Printer Card w/Cable For Apple II+ & IIe

5 Year  
Warranty  
Parallel  
\$48.95  
Parallel Text Only ..... \$36.95

CPM Card ..... \$36.95  
IIe Numeric Keypad ..... \$34.95  
IIc Numeric Keypad ..... \$39.95

### II+ OWNERS

16K Card ..... \$36.95  
128K Card ..... \$64.95  
80 Column Card ..... \$49.95  
Plus Works ..... \$49.00  
5 Year Warranty

Prices subject to change without notice.

### For the Apple IIGS

40 Meg (SCSI) .....\$259.00  
85 Meg (SCSI) .....\$369.00  
120 Meg (SCSI) .....\$439.00  
Apple H.S. SCSI Card ....\$109.95

5 1/4 inch  
Disk Controller Card  
For Apple II, II+ & IIe  
5 Year Warranty  
Disk II  
\$39.95  
UniDisk  
\$59.95

GS MOUSE **\$59.00**

GS TRACKBALL **\$69.00**

IIe Mouse & Card **\$109.00**

PRO TERM **\$78.50**

Cooling Fan for Apple II+ & IIe  
With Surge Suppressor ..... \$29.95

Cooling Fan  
For  
Apple IIGS  
No  
Noise  
Interference  
**\$19.95**

### SERIAL/PARALLEL CONVERTER

IIc ..... \$49.00  
GS ..... \$59.00

GS Power Supply  
7 Amp **\$75.00**

|  |  |
|--|--|
| Replacement<br>IIe Keyboard<br>\$60.00 | 7 Amp. Pwr. Supply<br>II, II+ & IIe<br>\$55.00 |
|--|--|

Cables From ..... \$9.95  
IIe to Modem  
IIe to IMG I  
IIe to IMG II  
IIc to Modem  
IIc to IMG II  
Others

Talk & Data Kits  
SCSI Cables

### SWITCH BOXES

DIN 8 A/B ..... \$24.95  
DIN 8 A/B/C/D ..... \$29.95  
DB 25 A/B ..... \$24.95  
DB 25 A/B/C/D ..... \$34.95  
Parallel A/B ..... \$24.95  
Parallel A/B/C/D ..... \$34.95

VISA & MASTERCARD — NO EXTRA CHARGE DEALER PRICING  
Shipping Most Items \$6.00 / Drives \$8.00 / C.O.D. + \$4.50

## MEMORY PLUS DISTRIBUTORS, INC.

7902 East Pierce Street  
Scottsdale, Arizona 85257  
(602) 820-8819

FAX# (602) 968-3211  
Serving Apple Users Since 1983

9 a.m. to 4 p.m.  
M.S.T.  
Mon - Fri.  
University & School P.O.  
Accepted

20% Restocking charge  
on returned items

We carry only the  
Highest Quality products for  
your Apple.  
That's why we are  
the LARGEST  
and  
the BEST!

Circle 248 on Reader Service Card.

### A+ PUBLISHING

PRESIDENT/GROUP PUBLISHER Paul Boulé

EDITOR IN CHIEF William P. Kennedy

EXECUTIVE EDITOR Eileen T. Terrill

SENIOR EDITOR Paul Statt

SPECIAL-PRODUCTS MANAGER Janet Cote

CONSULTING EDITOR Cynthia E. Field

CONTRIBUTING EDITORS Carol S. Holzbreg

Joe Kohn

### DESIGN

ART DIRECTOR Jim Fletcher

ASSISTANT ART DIRECTOR Dianne K. Ritson

DTP/MACINTOSH MANAGER Doreen Means

### PRODUCTION

PRODUCTION DIRECTOR Sue Gross

### ADVERTISING

NATIONAL ADVERTISING DIRECTOR Sanford L. Fibish  
(800) 441-4403

SALES REPRESENTATIVE Kevin Casper  
(800) 441-4403

ADVERTISING COORDINATOR Mary Hartwell  
(800) 441-4403

ADMINISTRATIVE ASSISTANT Lisa Benway-Caron

### CIRCULATION

DIRECTOR OF OPERATIONS  
AND CIRCULATION Megan Lane

SINGLE-COPY SALES DIRECTOR George Clark  
(415) 978-3301

CIRCULATION MANAGER Laurie K. Seamans

FULFILLMENT MANAGER Kim E. Smith

FULFILLMENT ASSISTANT Jill Wood

CUSTOMER SERVICE (800) 289-0619

### MARKETING SERVICES/PROMOTION

DIRECTOR OF MARKETING Peg Brown

MARKETING ASSISTANT Rita Rivard

FOUNDER Wayne Green

*mCider/A+* supports a forum on America Online. For information  
on obtaining appropriate software, call Quantum Computer Services  
at (800) 227-6364.



*mCider/A+* (ISSN #1054-6456), an IDG publication, is published monthly by A+ Publishing, a subsidiary of Macworld Communications (a division of IDG Communications), 80 Elm St., Peterborough, NH 03458. Phone: (603) 924-0100. Second-class postage paid at Peterborough, NH, and additional mailing offices. (Canadian second-class mail registration number 9590.) Subscription rates in U.S. are \$27.97 for one year, \$43 for two years. Foreign orders must be prepaid in U.S. funds drawn on a U.S. bank. One year only: Canada \$37.97 (price includes GST #126038405), Mexico \$37.97, foreign surface mail \$47.97, foreign air mail \$82.97. Nationally distributed by International Circulation Distributors. Postmaster: Send address changes to *mCider/A+*, Subscription Services, P.O. Box 58618, Boulder, CO 80322-8618. (Send Canadian changes of address to *mCider/A+*, P.O. Box 1051, Fort Erie, Ontario L2A 5N8.) Entire contents copyright 1993 A+ Publishing. No part of this IDG Communications publication may be reprinted or reproduced by any means without prior written permission from the publisher. All programs are published for personal use only. All rights reserved. Produced in U.S.A.



1 - 8 0 0 - 7 7 7 - 3 6 4 2

NEC CD EXPRESS



CD Express is the easiest, most complete, and most affordable way for your family to experience the fascinating world of advanced interactive CD-ROM technology. CD-ROM is the most involving and challenging new home and office computer technology. It creates a sophisticated reference, entertainment and learning environment on your existing computer system. And because CD-ROM is truly interactive technology, it allows every member of the family to work individually. No other technology offers such a high degree of personal involvement and satisfaction. In addition, each CD-ROM program offers exceptional graphic quality, including motion graphics, photography, illustration and fully-integrated text, as well as CD-quality sound in music and digitized speech. Seeing and hearing is believing!

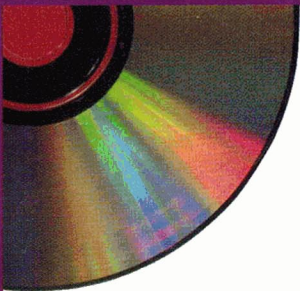
- ▶ NEC CDR-25 CD-ROM reader.
- ▶ Amplified stereo speakers.
- ▶ Complete user guides, cables, and more!

ONLY \$399.95

- PLUS 10 CD-ROM TITLES!**
- Lucasfilm Game Favorites
  - Publish It! v.2.0
  - Great Cities of the World, Vol. 2
  - Interactive Storytime
  - Total Baseball
  - The Family Doctor
  - The Software Toolworks World Atlas
  - Discis Books Aesop's Fables
  - The Manhole
  - Bureau Development, Inc. Best of the Bureau

**BOOKS**

|   |       |
|---|-------|
| The Official New Print Shop Handbook      | 19.95 |
| Planning & Managing AppleTalk Networks    | 19.95 |
| The Macintosh Bible w/Practice Disk       | 34.95 |
| The System 7 Book                         | 22.95 |
| Using Microsoft Works 3 for the Mac       | 24.95 |
| Hands-On ClarisWorks                      | 29.95 |
| Using ClarisWorks                         | 22.95 |
| ClarisWorks for Teachers                  | 29.95 |
| The Official Kid Pix Activity Book        | 13.95 |
| Welcome To... CD-ROM                      | 19.95 |
| Mac Multimedia Madness—With CD-ROM & Disk | 39.95 |



Stravinsky: Rite of Spring 69.95  
 Voyager CD Audio Stack 69.95  
 Voyager Video Stack 69.95

**SOFTWARE TOOLWORKS**  
 Time Table of History, Science & Innovation 59.95  
 U.S. Atlas 49.95  
 World Atlas v.2.1 59.95



**ORANGE CHERRY**  
 20,000 Leagues Under The Sea 64.95  
 Adv of Pinocchio 64.95  
 Beauty & The Beast 59.95  
 Jungle Safari 59.95  
 Superstar Science 89.95  
 Swiss Family Robinson 64.95  
 Talking Classic Tales 69.95  
 Talking Schoolhouse 69.95  
 Time Traveler 119.95  
 Wind In The Willows 64.95

**WARNER NEW MEDIA**  
 Clinton: Portrait of Victory 29.95  
 Desert Storm 24.95  
 Funny 29.95  
 Life Maps Animals 29.95  
 Life Maps Animals w/Backbones 29.95  
 Life Maps Organic Diversity 29.95  
 Magic Flute 49.95  
 Sports Illustrated Almanac 44.95  
 The Orchestra 59.95  
 The View From Earth 59.95

**WAYZATA**  
 1993 Wayzata World Fact Book 29.95  
 CD Fun House 29.95  
 Front Page News 149.95  
 Gallery Of Dreams 79.95  
 Music Madness 79.95  
 Newsbytes 99.95  
 Ocean In Motion 159.95  
 Space Time & Art 159.95

**OTHER TITLES**  
 Journey Man Project 74.95  
 New Grolier Encyclopedia 229.95  
 Spaceship Warlock 59.95  
 Velveteen Rabbit & Other Children Classics 59.95  
 Webster's 9th New Collegiate 179.95

**CD-ROMS**



**THE Q-ROM**

Demos from top manufacturers, over 100 ready-to-run programs, clip art, fonts, QuickTime movies and more! **\$9.95**

**DISCS**

**What Are Discis Books?**

Discis Books are a new medium for learning. They provide for improved understanding and the readers interact in such a way that they are in total control of their own learning experience. Discis Books show a child that learning can be a fun and rewarding experience...truly an adventure in learning!



- Aesop's Fables 34.95
- A Long Hard Day On The Ranch 34.95
- Cinderella 39.95
- Heather Hits Her First Home Run 34.95
- Moving Gives Me A Stomach Ache 34.95
- Mud Puddle 34.95
- Night Before X-Mas 29.95
- Paper Bag Princess 34.95
- Scary Poems For Rotten Kids 39.95
- Tale of Benjamin Bunny 34.95
- Tale of Peter Rabbit 39.95
- Tell-Tale Heart 39.95
- Thomas' Snowsuit 34.95
- Ten Pack Library 329.95

**BRODERBUND**

- Arthur's Teacher Trouble 44.95
- Just Grandma & Me 34.95

**COMPTON'S NEW MEDIA**

- 1992 Guinness Multimedia Disk of Records 39.95
- 600 Days to CoCo's Island 49.95
- Compton's Multimedia 529.95
- Dictionary of The Living World 109.95
- Science & Architecture 49.95
- Science & Nature III 49.95

**THE VOYAGER COMPANY**

- A Silly Noisy House 39.95
- Amanda Stories 1, 2, 3, 4 39.95
- Baseball's Greatest Hits 44.95
- Exotic Japan 69.95
- Ludwig Von Beethoven: 9th Symphony 69.95
- Mozart: Dissonant Quartet 39.95
- Schubert: "The Trout" Quintet 39.95

**SPECIAL PUBLISH-IT! EASY 2.1.9 CD-ROM**

This full-featured desktop publisher allows you to create professional-looking documents in minutes. Use the programs' built-in layout tools to overlap, re-position, and resize text and graphic elements on the page. Includes over 3,000 clip art images and 100 fonts.

**\$29.95**



CALL FOR YOUR FREE CATALOG 1-800-777-3642

**SIGN UP FOR ENHANCE**  
 Bringing Teachers & Technology Together



Quality Computers™

ENHANCING EDUCATION

Circle 136 on Reader Service Card.



# "You are a credit to the mail order industry."

—George R. James



Quality Computers™

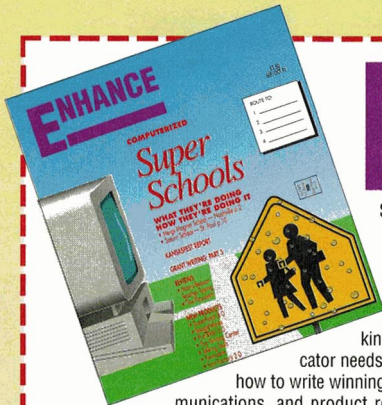
POWER FOR PERFORMANCE

Ask about overnight delivery



# FREE SOFTWARE

WITH EVERY ORDER



# ENHANCE

Since we introduced Enhance over 6 years ago, it has grown from a simple-yet-wonderful newsletter into one of the most respected and widely-read educational technology publications in America. Every issue of Enhance contains the kind of information the computer-using educator needs to make an impact in the classroom—like how to write winning grants, multimedia applications, telecommunications, and product reviews and announcements for Apple II, Macintosh, and IBM. It is written by a nationwide network of educators, like yourself, who want to reach their students through computer technology.

Enhance also includes our catalog — full of all the hardware and software you need for your Apple II, Macintosh, or IBM.

Quality Computers has been publishing Enhance for over 6 years. It's free to all QC customers, or you can call for your free subscription today!

"We enjoy reading Enhance and look forward to receiving it. It is well written, understandable, pertinent, and a great source of information." —Everett Foust

"Thank you for providing the opportunity for schools like ours to have a chance at getting some of the technology that can bring our computer program into the 90's." —Sandy Kowalczyk, Key School, Annapolis, MD

## Get ENHANCE free!

Join the hundreds of thousands who have enjoyed Enhance for over 5 years. Get your free subscription today! (Foreign subscribers add \$20 U.S. funds)

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone ( \_\_\_\_\_ ) \_\_\_\_\_

Clip and mail to: QUALITY COMPUTERS, Enhance, P.O. Box 665, St. Clair Shores, MI 48080

### APPLIED ENGINEERING

RamWorks III 1 MEG. 179.95  
Z-RAM Ultra 3 256K 189.95

### DISK DRIVES

APPLE 3.5" FDHD (IIe/II GS) 349.95  
Controller 149.95  
APPLIED ENGINEERING AE 3.5" 229.95  
AE 5.25" 179.95

### PRINTERS

APPLE ImageWriter II 459.95  
PANASONIC Panasonic 1180i 199.95  
Panasonic 1123 249.95

### PRINTER INTERFACES

APPLIED ENGINEERING Parallel Pro 79.95  
Serial Pro 89.95  
ORANGE MICRO Grappler Plus 89.95  
SEQUENTIAL SYSTEMS Q-Talk LTO 89.95  
XETEC SuperWriter 924 64.95

### MODEMS

QUALITY COMPUTERS Q-Modem 2400 89.95  
Q-FaxModem GS 209.95  
APPLE II SPECIAL! Q-Modem 2400, Cable, and Point-to-Point 139.95  
MACINTOSH SPECIAL! Q-Modem 2400, Cable, and MicroPhone 149.95  
SUPRA SupraFAXModem v.32 BIS 14,400 bd. (Mac) 379.95  
SupraModem v.32 9600 279.95

### MONITORS

MONOCHROME 12" Amber 129.95  
MAGNAVOX Magnavox RGB Custom Cable (GS) 19.95

### INPUT DEVICES

APPLE AppleMouse IIe 119.95  
CH PRODUCTS Roller Mouse 89.95  
Mach III Joystick 29.95  
KENSINGTON SPECIAL! Turbo Mouse 3.0 79.95  
KEYBOARDS IBM-Style Keyboard 79.95  
Apple ADB Keyboard Regular 129.95  
Extended 199.95  
LOGITECH MouseMan 84.95

VITESSE Quickie 3.0 (IIe, II GS) 199.95  
SPECIAL! Quickie/InWords Combo 249.95

### SOUND & GRAPHICS

APPLE Video Overlay Card 449.95  
DIGITAL VISION ComputerEyes IIe 99.95  
ComputerEyes II GS 199.95  
KOALA Koala Drawing Pad 99.95  
OPCODE MIDI Translator 49.95  
STREET ELECTRONICS Echo II 109.95

### ACCESSORIES

APPLE IIe Enhancement Kit 59.95  
APPLIED ENGINEERING Power Supply IIe/II+ 79.95  
KENSINGTON System Saver GS 29.95  
Anti-Glare Filter 14.95  
Dust Cover 9.95  
Universal Printer Stand 4.95  
MISCELLANEOUS Cables from 14.95  
Extended 80 Col. Card 19.95  
Switchboxes from 19.95  
Keyboard Skins 19.95  
3.5" Diskettes (10) 7.95  
5.25" Diskettes (10) 5.95  
Mouse Pad 4.95  
Phone Net Connectors 19.95  
Q-Buffer 59.95

NITE OWL II GS Battery Kit 14.95  
RIBBONS ImageWriter Black 2.95  
ImageWriter 4-C 5.95  
ImageWriter Color 4.95  
Heat Transfer Black 6.95  
Heat Transfer 4-C 14.95  
Panasonic 1180/1090 2.95  
SMT No Slot Clock 39.95  
ZIP TECHNOLOGY Zip GS 8/16 199.95  
Zip IIe 8MHz 139.95

### HYPERMEDIA

ROGER WAGNER HyperStudio 3.1 99.95  
X-Commands 35.95  
QUALITY COMPUTERS Clip Art GS Vol. 1, 2 or 3 19.95  
Clip Sounds GS 19.95  
How a Bill Becomes a Law 19.95  
Story of Creation 19.95

### WP/DB/SS

BEAGLE BROS. BeagleWrite 48.95  
BeagleWrite DA's 9.95  
BeagleWrite Pict Mgr 9.95  
BeagleWrite Font Paks 9.95  
BeagleWrite GS 59.95

BRØDERBUND Bank Street Writer Plus 49.95  
CLARIS

Get your AppleWorks and AppleWorks GS upgrades from QC  
AppleWorks 3.0 169.95  
3.0 Upgrade 79.95  
AppleWorks GS 1.1 199.95  
1.1 Upgrade 99.95  
WESTCODE InWords (OCR) 79.95  
Pointless 49.95

### BUSINESS & FINANCE

INTUIT Quicken 44.95  
MANZANITA BusinessWorks Bundle 199.95  
BusinessWorks Payroll 99.95  
SEVEN HILLS Shoe Box 39.95  
SOFTWARE SOLUTIONS Your Money Matters GS 79.95

### TELECOMM

INSYNC ProTERM 3.0 79.95  
School Pack 279.95  
BEAGLE BROS Point to Point 59.95

### EDUCATIONAL SOFTWARE

ORANGE CHERRY — TALKING SCHOOLHOUSE Talking Numbers GS 39.95  
Talking Alpha Chimp GS 39.95  
Talking Animals 39.95  
Talking ABC's GS 39.95  
Talking USA Map GS 39.95  
Talking Speller GS 39.95  
Talking Money GS 39.95  
Talking Reading Railroad 39.95  
THE LEARNING COMPANY Reader Rabbit 24.95  
Talking Reader Rabbit GS 34.95  
Math Rabbit 24.95  
Children's Writing & Publishing Center 34.95  
BRØDERBUND Carmen World II GS version 25.95  
Carmen USA, Europe, Time, or World GS 29.95  
Carmen America's Past 29.95  
The Playroom 24.95  
Katie's Farm or McGee 24.95  
The Treehouse 29.95  
WEEKLY READER Sticky Bear Numbers 24.95  
Talking Sticky Bear ABC's 29.95  
Sticky Bear Typing 29.95  
Sticky Bear Math 24.95  
Sticky Bear Math Tutor 29.95  
Sticky Bear Reading 24.95  
MECC Calendar Crafter GS 29.95  
Number Munchers 24.95  
Word Munchers 24.95  
Oregon Trail 24.95  
USA GeoGraph GS 39.95

# 1-800-777-3642

Ph. 313-774-7200 Tech. Support 10am-8pm ET 313-774-7740  
24-hour Fax 313-774-2698 24-hour BBS 313-774-2652

20200 Nine Mile Rd. • P.O. Box 665 • St. Clair Shores, MI 48080  
Circle 136 on Reader Service Card.



**"I highly recommend your company to other educators."**

—Gail Braddock



**Quality Computers™**

POWER FOR PERFORMANCE

**Memory Solutions for Apple IIe, IIGS**

**Q-RAM GS**

The Q-RAM GS is an economical way to add up to 4 MEG of memory to your Apple IIGs. It's fully compatible with all Apple IIGs hardware and software—including the IIGs RAM Disk and DMA peripherals like the Apple II High Speed SCSI Card. And it's so small that it fits in your shirt pocket.

When you install the Q-RAM GS life becomes just a little easier. Programs load completely into memory at startup, eliminating disk swapping. Out-of-memory error messages disappear. You'll have memory to spare—memory to load desk accessories, or to set up a RAM disk.

Installation is simple. You can expand a Q-RAM GS by snapping in standard SIMMs—we even include the necessary diagnostic software for your peace of mind. And since the Q-RAM GS uses SIMMs, your memory investment won't go to waste.

Of course, since you're dealing with Quality Computers, you get an unconditional 30-day money-back guarantee and a five-year warranty. And the price is the best news of all—a 2 MEG Q-RAM GS costs about the same or even less than other IIGs memory cards in a 1 MEG configuration!

**Q-RAM GS**

|   |                          |
|---|--------------------------|
| <b>1 Meg. ....</b>                            | <b>\$99<sup>95</sup></b> |
| <b>2 Meg. ....</b>                            | <b>139<sup>95</sup></b>  |
| <b>4 Meg. ....</b>                            | <b>219<sup>95</sup></b>  |
| <b>Q-RAM II (4 meg. surface mounted) ....</b> | <b>199<sup>95</sup></b>  |

**4-Meg. Q-RAM comes with FlashBoot FREE!**

**Comes with Switch Hitter and 15 MEG. of free software**



**The Q Drive eliminates disk swapping and helps you work twice as fast!**

Thousands of drives later, experts still are praising the Q Drive for its performance and value. *inCider/A+* gave it a four-and-a-half-star rating. Our customers are using words like "amazing" and "fantastic" to describe the way the Q Drive has changed their computing.



The Q Drive features a fast, reliable Quantum mechanism using the latest technology, including auto-parking heads, a voice-coil actuator, and a track buffer. And since the Q Drive uses the industry-standard SCSI interface, you get complete compatibility with your current computer system—and your next, whether it's an Apple II, Macintosh, or IBM.

The Q Drive's plain-English manual covers more than installation and setup. It even tells you how to manage your mass storage effectively. From GS/OS and ProDOS to backups and maintenance, it's all there, including a glossary of hard drive jargon. And no hard drive is easier to set up and use—install a card, connect two cables, and turn on the power. The Q Drive automatically configures itself to match your computer, and the latest system software is already installed.

Are you interested in upgrading to System 6 but afraid of compatibility problems? **Switch Hitter is your solution, allowing you to keep System 5 on your hard drive when you add System 6! A simple keyboard command selects the desired System version at boot time. Additionally, Switch Hitter lets you change your IIGS's System Speed and Startup Slot at boot time and start up a 3.5" or 5.25" disk, all without having to wait for your hard drive to boot into the Finder.**



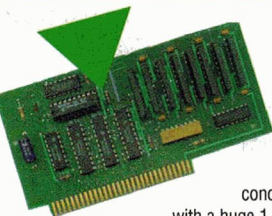
**Q DRIVE**

|                                     |                           |
|-------------------------------------|---------------------------|
| <b>42 Meg. ....</b>                 | <b>\$329<sup>95</sup></b> |
| <b>85 Meg. ....</b>                 | <b>399<sup>95</sup></b>   |
| <b>127 Meg. ....</b>                | <b>499<sup>95</sup></b>   |
| <b>170 Meg. ....</b>                | <b>549<sup>95</sup></b>   |
| <b>44 Meg. Removable ....</b>       | <b>499<sup>95</sup></b>   |
| <b>Apple II H.S. SCSI Card ....</b> | <b>109<sup>95</sup></b>   |

And remember, you're dealing with Quality Computers, the hard drive leader. The Q Drive comes with a 30-day money-back guarantee and a one-year limited warranty. A great drive and great support, at a great price—that's the Q Drive. Find out why it's the best Apple hard drive value—test drive one today!

**Q-RAM IIe**

Snap the Q-RAM IIe into your Apple IIe, and you'll create a whole new computing experience. Programs load faster—and completely. A lot less disk swapping. A lot more productivity. All of AppleWorks, plus your TimeOut applications will completely load into RAM. That means you can concentrate on working—not waiting for disk drives. Plus with a huge 1 MEG. treasure trove of RAM, you can create huge documents, and not encounter a single "Out of Memory" message.



The Q-RAM IIe fits snugly into your IIe's auxiliary slot, and comes with diagnostic software, a 5-year warranty, a 30-day money back guarantee, and is 100% software compatible.

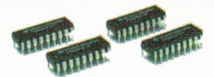
**Q-RAM IIe**

|                    |                          |
|--------------------|--------------------------|
| <b>1 Meg. ....</b> | <b>\$99<sup>95</sup></b> |
|--------------------|--------------------------|

**ASK ABOUT QUANTITY DISCOUNTS ON Q-RAM CARDS**

**RAM Chips**

|                          |                          |
|--------------------------|--------------------------|
| <b>256K (8) ....</b>     | <b>\$19<sup>95</sup></b> |
| <b>256K x 4 (2) ....</b> | <b>19<sup>95</sup></b>   |
| <b>1 Meg. (8) ....</b>   | <b>49<sup>95</sup></b>   |



**SIMMs**

|                    |                          |
|--------------------|--------------------------|
| <b>1 Meg. ....</b> | <b>\$49<sup>95</sup></b> |
| <b>2 Meg. ....</b> | <b>99<sup>95</sup></b>   |
| <b>4 Meg. ....</b> | <b>179<sup>95</sup></b>  |

**1-800-777-3642**

- ✓ We will meet or beat any nationally advertised price\*
- ✓ School P.O.'s accepted by phone, fax or mail
- ✓ School Editions • Lab Packs • Networks • Site Licenses

Circle 136 on Reader Service Card.



# WHAT'S NEW

BY CYNTHIA E. FIELD, PH.D. • CONSULTING EDITOR

## CLINTON PZ

T

he new President promised change, and the most appealing from a computer lover's perspective is Bill Clinton's enthusiasm for technology. To communicate

with him on line, all you need is a modem and a subscription to **America Online (AOL)** or **CompuServe**.

Type in the President's on-line e-mail address — **Clinton Pz** — in AOL's **To:** box and then share your thoughts in the message box below. Clicking on a **Send** button is easier than licking a stamp.

A search through AOL's member directory reveals few surprises about Bill Clinton; among personal interests the President cites are politics and the saxophone. (Is this how Arsenio found out?)

On CompuServe, the President's on-line address is **75300,3115**. Dave Kishler, CompuServe's supervisor of corporate communications, estimates that more than 1000 messages per day now stream into the White House and Congress through President Clinton's electronic mailbox, as well as through **CONGRESS-grams**, a service whereby CompuServe prints your message and delivers it as paper mail to the White House or to a member of Congress.

CompuServe also recently established a **White House Forum**. Users can share insights about the economy, national defense, and other issues on the forum's message board. Briefing papers direct from the White House are posted in the forum library. At press time plans hadn't been finalized, but CompuServe was establishing a special area in hopes of featuring live conferences with White House staffers or the President himself.

Both services offer low-cost kits that include the software you need to link up with the on-line community. For more information, contact America Online, 8619 Westwood Center Drive, Vienna, VA 22182-2285, (800) 827-6364, or CompuServe, P.O. Box 20212, Columbus, OH 43220, (800) 848-8199.

## THORNS AMONG THE ROSES

**F**our hundred years is no excuse. Shakespeare was *pret-ty* naive when he mused, "What's in a name? That which we call a rose/By any other name would smell as sweet." Wake up, Will. This is the '90s. Like roses in June, trademark-infringement lawsuits seem to be bustin' out all over.

Ask Jerry Cline, president of InSync — or rather **InTrec Software**, the company that publishes **ProTERM 3**, the much-praised Apple II telecommunications program. With assistance from partner Greg Schaefer, Cline recently changed the company's name to InTrec Software to avoid potential trademark conflicts. Why?

Blame the Mac. In response to burgeoning sales of Apple's portable PowerBooks, software developers set to work designing utilities that would bring files stored on a traveling PowerBook's hard drive *in sync* with the hard drive on the desktop Mac back at the office. A new technology was born, and a brand-new name for InSync Software was in the cards.

"We were never pushed to change our name, but our research demonstrated that if we were, we would likely be the underdog," says Cline. Schaefer wrote a computer program that juggled consonants and vowels to generate 10,000 possible names. *InTrec* was the only potential name that fit the company's criteria — one that looked and sounded like the old name and that fit the existing logotype. Most of all, the name had to be safe from a trademark standpoint.

Because company and product names are thorny issues, Cline offers these suggestions if you're contemplating a business startup or trying to choose a name for your new product:

- **Pick a nonsense word.** If the word you choose implies something, you can bet someone has figured it out. *In sync* resulted in more than 50 "hits" when we searched a national trademark database.

- **Books are available to help you navigate the labyrinth of trademark, trade-name, and patent law.** Cline recommends *Trademark: How to Name a Business and Product*, by McGrath and Ellis (Nolo Press).

- **Call your state Corporate and Trademark Commission to see whether a name you like is already in use.**

You can also research yellow-pages directories and corporate reference books such as *Thompson's Register* at a public library.

- **Trade-name search companies are pricey.** Researching just one name can cost between \$100 and \$400. Instead, log onto **Dialog Information Service**.

- **Dialog's on-line time is too expensive to waste.** Using



**InTrec's versatile telecom program ProTERM recently helped the company track down trademarks to avoid in its search for a new name.**

ProTERM, Cline and Schaefer selected the trade names they wanted to check and wrote a small macro containing the names and prompts necessary to complete the search. They used wildcard characters (such as *intre?*) to search federal and state trademark databases.

- **Consult a trademark attorney.** He or she can make sure you understand what you're doing and that your information sources are adequate.

To learn more about ProTERM 3, contact InTrec Software at 3035 East Topaz Circle, Phoenix, AZ 85028-4423, (602) 992-5515, fax (602) 992-0232. For those of you who are already avid telecom fans, you can also reach the company on Delphi, GENie, and America Online, where the address is — what else? — *InTrec*.



◆  
**NO MORE PAPER SHUFFLE?**

**W**ell, almost. Educational Activities' **Curriculum Manager** (\$6000), an enhancement to the company's **Solutions Integrated Learning System**, handles administrative functions so that teachers have more time to do what they do best — help students learn.

According to Educational Activities' Alan Stern, Solutions is an automated delivery system offering students in



**Solutions' Life Skills module.**

grades 4 to 12 and in adult education lessons from a series of curriculum-based modules for reading, writing, math, ESL (English as a second language), workplace literacy, and life skills. Solutions is compatible with most networks, including AppleShare, Corvus, and DigiCard.

The Curriculum Manager keeps student enrollment records and tracks a student's scores and time on task. In addition, the software lists objectives completed and those mastered and provides detailed progress reports. A password system guarantees privacy of information.

A video is available free to educators and administrators. Your school can also preview the software free for 30 days. For information about Solutions Integrated Learning System or Curriculum Manager, contact Educational

Activities at 1937 Grand Avenue, Baldwin, NY 11510, (800) 645-3739, (516) 223-4666, fax (516) 623-9282. For more information, circle number 303 on the Reader Service card.

◆  
**WE KNEW THAT**

**T**he Apple II market is strong and growing," observes MindPlay's Paul L. O'Rourke in explaining the company's decision to add Abracadata's **The Adventure of Learning Series** to its Apple II software line.

With modules focusing on art history (\$49), communications (\$29.95), language arts (\$109), math (\$96), general science (\$179), earth science (\$69), physical science (\$99), and social studies (\$49), The Adventure of Learn-

ing spans the curriculum. Each simulation, which supplements textbook instruction, motivates kids to use concepts they learn in class to solve problems. Teachers (and students) can also create their own learning adventures with **The Adventure of Learning Master and Toolkit**.

Plan your next learning adventure with MindPlay's 1993 catalogue. Request a copy from MindPlay, 3130 North Dodge Boulevard, Tucson, AZ 85716, (602) 322-6365, (602) 322-0363 fax. For more information, circle number 300 on the Reader Service card.

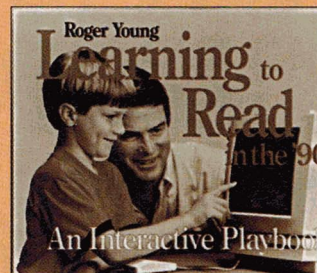
◆ ■  
**READ IT AND REAP**

**O**kay, so it's not software, but **Learning to Read in the '90s: An Interactive Playbook** (\$9.95 plus \$2.50 shipping and California sales

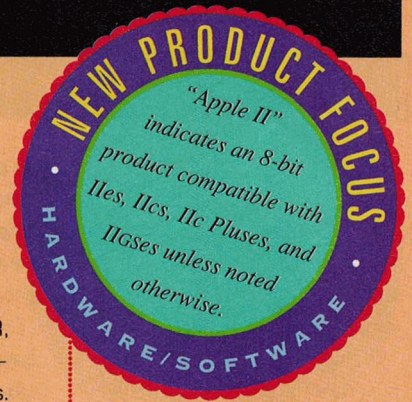
tax, if applicable) gives parents a new way to become involved in their children's education. The book shows parents how to make learning to read fun by using simple word pictures, television, a VCR, an audiocassette player — and, of course, computers. Not surprisingly, most of the programs included in the book's recommended software list run on the Apple IIe/c or IIGS.

According to Celestial Arts, the book's publisher, a recent Stanford University study demonstrated that children who played reading games on a home computer improved their reading skills five times more than those who had no computer. Besides, notes Roger Young, the book's author, "Children have inherent needs for play and interaction, and busy or distant parents now have a guidebook to the landscape of childhood, told from the vantage point of a guy who's been there."

To order **Learning to Read in the '90s: An Interactive Playbook**, write to Celestial Arts/Ten Speed Press, P.O. Box 7123, Berkeley, CA 94707, (800) 841-2665, (510) 845-8414, fax (510) 524-1052. For more information, circle number 304 on the Reader Service card.



**Author Roger Young shows parents how to take advantage of today's technological tools to boost kids' reading skills.**



■  
**JUST THE FAX, MA'AM**

**N**ow Apple IIGS users can fax lunch orders to their favorite take-out joints just as Mac and PC users do. Here's real convenience for you: **Q-FaxModem GS**, from Quality Computers, is an external 2400-baud modem and send/receive facsimile device in a single box.

At press time, Quality Computers spokesman Walker Archer explained that the software enabling the GS to receive faxes was still in beta testing and may not be available until later this year. Meanwhile, the send software was being prepared for May release.

Thanks to an included CDEV (control-panel device), Q-Fax lets you send a fax to any group III facsimile machine and include a customized transmittal sheet, as well.

Archer says the software, which is compatible with System 6 and works with any GS fax modem, will also be offered separately.

To learn more about Q-FaxModem GS, which is priced at \$209.95, contact Quality Computers, 20200 Nine Mile Road, P.O. Box 665, St. Clair Shores, MI 48080-0665, (800) 777-3642, (313) 774-7200.

For more information, circle number 301 on the Reader Service card.



## KEYS TO SUCCESS

Bytes of Learning recently announced the release of **UltraKey 2.0**, the latest version of the company's "classic" typing-instruction program for the 64K Apple II. (Macintosh and MS-DOS versions are available, as well.)

Among the features that distinguish UltraKey from other typing programs, says company president Art Willer, are individual user tracking and animated tutorial graphics. For example, UltraKey's "helping hands" illustrate each keystroke before you press a target key. (A new "politically correct" Macintosh version lets you select the hands' skin tone.)

UltraKey 2.0 is suitable for kindergarteners and senior citizens alike. **UltraKey Manager**, a program that lets teachers organize UltraKey student records and create custom lessons, was in the works at press time.

The single-user version of UltraKey 2.0 is priced at \$89 (includes 3.5- and 5.25-inch disks); a school site license is \$449. An interactive demonstration disk is available free.

The company has also released **InSight 1.1**, a career-exploration program for grade 7 to adult. It's in use in Dade County public schools, the New Jersey

Corrections Department, and the Department of Education for the Province of Manitoba, among other places.

The single-user version (64K required) costs \$195; a site license costs \$995. Lab packs

are available, as well. A free demonstration version of InSight 1.1 is available upon request to educators and corporate users.

For more information, contact Bytes of Learning, 908 Niagara Falls Boulevard #240, North Tonawanda, NY 14120-2060, (800) 465-6428, (416) 495-9913, fax (416) 495-9548. For more information, circle number 302 on the Reader Service card.

## WORD GAMES

McCarthy-McCormack has announced two new fun-and-games programs for beginning readers.

In **Cinnamon Bear's Undersea Adventure**, students in grades 1 to 3 practice vowel combinations such as ai, ea, ee, igh, oo, ow, and ou as they try to capture swimming sea creatures for an aquarium collection.

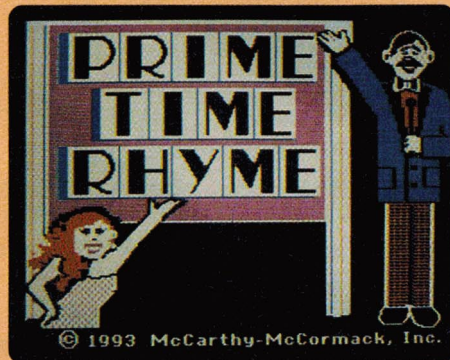
In **Prime Time Rhyme**, children practice auditory discrimination and reading skills as they match pictures with



**Cinnamon Bear and friends dive into a sea of vowel combinations.**

rhyiming words. In a game-style interlude students chase and capture flying birds and crawling bugs.

Each complete package (which includes 5.25- and 3.5-inch disks) includes a



**Kids match pictures with words and hunt birds and bugs in Prime Time Rhyme.**

teacher's guide. Teachers are encouraged to make all the copies they need for their schools.

Cinnamon Bear's Undersea Adventure and Prime Time Rhyme are priced at \$49.95 each and run on any 128K Apple II. Contact McCarthy-McCormack, 2885 Downhill Drive, Colorado Springs, CO 80918-1601, (800) 869-1446. For more information, circle number 305 on the Reader Service card.

## FREEBIES

Here's a deal that's just too good for teachers or parents to pass up. Mastery Development is offering free demonstration disks of its complete line of educational software products. Titles include **Keyboarding Klass**, **Mastery Arithmetic Games**, **Mastery Spelling**, **Math Facts Tracker**, **The Writing Room**, and **Geo-Race USA**. (Other individual programs in the Geo-Race series cover Washington State, Colorado, Texas, Canada, Europe, Central America, and South America.)

The Writing Room and Geo-Race require 128K; the others, 64K. To request free demonstration disks, contact

Mastery Development, P.O. Box 3126, Redmond, WA 98073, (206) 885-6927, fax (206) 885-7189.

The company also designed, distributes, and supports the **Mastery Development Network & Tracking System**, a low-cost solution that maximizes your

investment in Apple II computers and printers.

Mention the word "network" and most people think Apple-Talk or at least Macintosh. Not so. The Mastery Development Network & Tracking System uses an Apple IIe or GS as a file server. (No Macs need apply.)

For a free videotape — or a free two-week evaluation — contact Mastery Development. For more information, circle number 306 on the Reader Service card.

## KANGAROO AND COMPASS

Two new programs for 48K Apple IIs help children in grades K-3 master beginning math and map and geography skills.

In **Fun with Numbers: Beginning Math Skills**, students test equivalence by adding tiny animals to a pan balance. A kangaroo hopping along a number line helps children develop addition and subtraction skills.

Activities support curriculum standards on number sense and concept of whole-number operations set by the National Council of Teachers of Mathematics.

Meanwhile, first- to third-grade students can explore





Wee beasts teach kids map skills in *Let's Go There*.

basic geography concepts — including cardinal directions, coordinates on a grid, map terminology, and map symbols — in **Let's Go There: Beginning Map & Geography Skills**. Using the keyboard, children move animated animals around maps depicting a neighborhood and a zoo.

Each program is priced at \$39.95. For more information,

contact Troll Associates, 100 Corporate Drive, Mahwah, NJ 07430, (800) 526-5289, (201) 529-4000, fax (201) 529-9347, or circle 307 on the Reader Service card.

**FONTASTIC**

**M**aking sure you have the perfect typeface for your next desktop-publishing project is a little easier now, thanks to II Productive's **Bullseye TrueType Font Collection** for Apple IIGSes enhanced with Pointless, West-Code Software's system extension. With hundreds of typefaces

to choose from, it's difficult to remember what each one looks like — so for the minimal cost of an SASE, II Productive will send you a printout displaying the 350 fonts in the collection. For more information, contact Marvin F. Gershowitz, II Productive, 14613 Red River, Austin, TX 78751, (512) 323-6937, or circle 308 on the Reader Service card.

**GUESSING GAMES**

**Predictions: From Samples**, a new simulation from Wings for Learning, encourages middle-school students to explore the laws of probability. Students analyze bar charts, pie charts, and line graphs to construct models, test conjectures, and predict outcomes.



Software calculators help kids understand fractions, decimals, ratios, and percentages, and figure means and deviations. The single-user version is \$65; additional lab-pack disks are \$15 each. To learn more or request a free catalogue, contact Wings for Learning, 1600 Green Hills Road, P.O. Box 660002, Scotts Valley, CA 95067-0002, (800) 321-7511, (408) 438-5502, or circle number 309 on the Reader Service card.

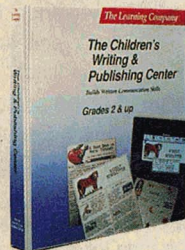
# Call today for your **FREE** Educational Resources Catalog!

Spring 1993 Edition!

**800-624-2926** USA/Canada

**708-888-8300** Illinois

WORLD'S LARGEST SUPPLIER OF APPLE II SOFTWARE!



**\$65<sup>95</sup>**  
APL/Iics  
School Edition  
Home Edition \$35.95  
Lab Edition \$139.95



**\$29<sup>95</sup>**  
APL/Iics\*  
School Version \$41.95 APL/Iics\*  
\$48.95 MAC



**\$49<sup>95</sup>**  
APL/Iics Comp/MAC  
Lab Pack \$99.90

\*APL and Iics versions are available for Original Math Blaster Plus only

**Educational Resources** • 1550 Executive Drive, Elgin, IL 60123 • FAX 708-888-8499/8689



• Checks & School P.O.s welcome • \$25 min. on charge cards • Free shipping over \$400 in U.S. • Under \$400 add 5% shipping with \$5 min. • Canada under \$200 add 10% with \$6 min. / over \$200, add 5% — also add 7% GST • Prices effective through July 31, 1993





SHAREWARE SOLUTIONS \* BY JOE KOHN

## FAIR SHARE

**T**he times, they are a-changin' . . . " Bob Dylan could have sung that tune for Apple II software buyers. The days when you could visit a local store and see hundreds of new Apple II software titles are long gone. Are II users demoralized? No way! To many of us, the change is thrilling — and challenging. We don't need all that slick packaging and advertising to entice us to buy: The future of Apple II software is shareware, freeware, and public-domain software. Software once worth \$100 is now available virtually for the price of a blank disk.

The Apple II led the revolution that brought low-cost computing power to the people. Now it's on the leading edge of an even more-revolutionary movement that has software mail-order and retail-store sales personnel quaking in their wingtips: Freeware and shareware are changing the way you can get Apple II software.

To join the revolution, join an Apple II user group. And buy a modem. That \$100 investment lets you connect your Apple II to a wealth of software through the phone lines. Once you get connected you'll soon be chanting the rallying cry of the software-marketing revolution: "Freeware, shareware, freeware, shareware . . ."

### What's Your Share?

Whether you like educational or productivity programs, utilities or games, it's all out there as freeware, shareware, and public-domain software. All types are readily available from individual Apple II users, user groups, on-line networks, and electronic bulletin-board systems (BBSes), which don't restrict you from making duplicates of programs from their software libraries and passing them around. But you should know the distinctions before you start copying.

Programmers who put their software into the public domain retain no legal rights to it. You can copy it, modify it,

and incorporate it as you like into other programs. Freeware authors, on the other hand, retain the copyright on their works. In effect they "license" you to use, copy, and distribute their software freely, but you're not supposed to modify or incorporate any part of the software into other programs without explicit permission from the author.

Freeware and public-domain software authors don't expect any monetary payment for their efforts. But don't be misled into thinking that just because a program is free of charge it's poorly written or useless. Some of the greatest Apple II

### NO FREE LUNCH

Shareware is a wonderful system: You get to try a program before you buy, and the price is usually a fraction of the cost of a commercially available package. Shareware authors benefit, too, because they can reach many potential buyers at minimal cost. But the success of shareware distribution is totally dependent on the honesty of the user community. Imagine the trust a programmer must have to spend many long weeks writing a program and then distribute it on the honor system. If you use shareware, please don't betray that trust.

— J.K.

software in recent times is freeware. **ShrinkIt**, for example, is a freeware file-compression utility written by Andy Nicholas. It's so widely used it's considered the de facto standard in its genre.

Although their software is freely distributed like freeware and public-domain software, shareware authors expect dollars for their efforts. But, unlike commercial software manufacturers, shareware authors grant you a limited license to try out their copyrighted software for a specified period of time, usually a week to a month, at no charge. At the end of that trial period, satisfied users are expected, on their honor, to remit payment of a small shareware registration fee — usually between \$5

and \$20 — to the author. (If you're not satisfied with the program, you simply stop using it.) When the author gets the fee, he or she often sends printed documentation, notices of updates, or samples of other shareware.

### How to Get Your Share

Public-domain programs, shareware, and freeware are all available electronically via modem from **America Online**, **CompuServe**, **Delphi**, and **GEnie**, the large on-line information systems. (See the accompanying "Product Information" box.) Each on-line service maintains a library with thousands of Apple II software titles. Anyone with a subscription can download any of the library files and programs — transfer them from the service's computer to your own Apple II. The cost to you is the price of using the on-line service, plus the toll charge (if any) for the phone call.

Local computer clubs — Apple II user groups — are also excellent sources of freeware, shareware, and public-domain software. A user group can also be the least-expensive source: Some organizations charge a few dollars to cover copying expenses, with the proceeds going toward the group's operating fund, while others do it for free if you simply supply the disk. Many individuals and clubs also operate free BBSes, which, like commercial services, are accessible via modem and from which you can download software.

What's most helpful about user groups is that members can collectively examine many more freeware, shareware, and public-domain software titles than you could alone in a lifetime — providing shared experience to help you select the best software and avoid the worst. There are hundreds of Apple II user groups around the country. Call Apple Computer's **User Group Connection** toll-free (800-538-9696 x500) to find the one nearest you.

Publications like inCider/A+ also help you sort through the thousands of freeware, shareware, and public-domain titles available for your II. Take some time to browse the accompanying print gallery showing our picks for the ten best freeware and shareware programs — both new and classic — for the Apple II family and the IIGS.



# APPLE ][ PERIPHERALS • UPGRADES • SERVICE PARTS • HARD DISKS

## SCHOOL & UNIVERSITY P.O.s ACCEPTED! • SCHOOL QTY. DISCOUNTS AVAILABLE\*

### RAM CHIPS

**RAM Chips for your....**  
 Apple //e or ][+ 4164/4116..\$50c  
 Expanding your... Apple IIgs Memory Card, /E GS-RAM, /E RAMWorks, Super Expander & Compatibles  
 768K Exp. Set (24 41256).....\$24.00  
 41256.....\$1.25  
 Expanding Your GS Juice+, S&S /EGS RAM + / II, CV Tech or Chinook 4000  
 41024 (1 Meg).....\$4.00  
 Bank of 8.....\$32.00  
 Expanding Your /E GS-RAM Ultra or RAMPak4 GS  
 44256 (256x4).....\$4.00  
 Bank of 8.....\$32.00  
 Expanding Your OctoRAM, GS Sauce, Q-RAM GS, Pacemark 4 Meg RAM Card  
 1 Meg SIMM.....\$24.00  
 RAMFast / CV Tech RAM 1Meg Upgrade Set 2 441024-80.....\$40.00

### PC Transporter

101 Keyboard for PCT.....\$29.00  
 PCT IBM Keyboard Cable.....\$7.00  
 MS DOS 5.0 Package.....\$49.00  
 3.5" 720K Ad-on Drive.....\$59.00  
 4464 Zip /PCT Mem. Exp.....\$2. ea.

### Motherboards/Service Parts

II+,//e Power Supply Exch. \$35.00  
 ][+,//e P/S...No Exch.....\$45.00  
 IIgs Power Supply Exch.....\$59.00  
 IIgs Power Supply No Exch.....\$79.00  
 //c Replacement Ext P/S.....\$29.00  
 //c External Power Supply.....\$39.00  
 //e or //c M/B W/Exch.....\$89.00  
 //e or //c Motherboard.....\$129.00  
 //e Keyboard Exch.....\$45.00  
 II+ Keyboard.....\$29.00  
 II+ Motherboard.....\$49.00  
 //e, //c, / IIgs Case \$25./ \$35.00

### Refurbished Printers

C-Itoh ProWriter Jr (9 Pin).....\$89.00  
 ImageWriter I.....\$179.00  
 ImageWriter I (Wide).....\$199.00  
 ImageWriter II.....\$259.00  
 9 Pin Parallel Printer.....\$89.00  
 IW-III Ribbons.....6 for \$12.00  
**Print Heads**  
 IW-I (Exch Only).....\$35.00  
 IW-II (Exch. Only).....\$79.00  
 Epson 9 Pin Heads (Most).....\$59.00  
 We rebuilt print heads

### Accessories

Plastic KYBD Cover, ][+, //e.....\$2.95  
 //e Drive & Monitor Stand.....\$9.95  
 Apple //e Enhancement Kit.....\$49.00  
 16 Pin Joystick ][+,//e.....\$9.95  
 9 Pin Joystick, IIgs.....\$12.95  
 Mouse Pad (Static Free).....\$2.95  
 Koala Pad.....\$29.00  
 Apple //e Card (Mac LC).....\$89.00

### Modems

USR 1200 Modem (NEW).....\$19.00  
 Hayes SM1200 (Refurb).....\$29.00  
 NEC 2400 Refurb External.....\$59.00

### PERIPHERAL CARDS

Zip GS 7Mhz / 8K Cache.....\$139.00  
 Zip Chip 8 Mhz (//e, //c).....\$139.00  
 Super Serial Card.....\$52.00  
 Iteasy IW-II 32K Buffer.....\$30.00  
 20 Pin 5.25" Disk Cont.....\$39.00  
 19 Pin 5.25" Disk Cont.....\$45.00  
 ][+ 80 Column Card.....\$45.00  
 GrafStar II Graphic Parallel.....\$35.00  
 Graphic Parallel (Grappler).....\$45.00  
 AEC SCSI Card.....\$59.00  
 16K Language Card (][+).....\$17.00  
 No Slot Clock.....\$23.00  
 Vision Plus Enhanced IIgs Video Digitizer. B&W & Color!.....\$209.00

### Cables & Switch Boxes

METAL, GBBS Sysops. HST/v.32bis hardware hndshk cables! (Specify).....\$16.95  
 DuoDisk Replacement Cable.....\$19.00  
 19 Pin Drive Converter.....\$14.00  
 IIgs,e,c to ImageWriter I/II.....\$9.95  
 Laser 128 Parallel Cable.....\$14.95  
 Fullnet Connector.....\$14.95  
 Switch Boxes.....\$19.00 - \$29.00  
 ADB Replacement cable.....\$9.95  
 SCSI Cable, 25-50 or 50-50.....\$9.95

### APPLE CHIPS & ROMS

Call for Chips Not Listed!  
 //e Related  
 IOU/MMU 344-0010/0020.....\$29.00  
 ROM 342-0303 or 0304.....\$19.00  
 ROM 322-0134 or 0135.....\$9.00  
 ROM 342-0133 or 0265.....\$9.00  
 Keyboard ROM 342-0132.....\$9.00  
 HAL 342-0170.....\$15.00  
 KYBD Encoder AY3600PRO.....\$29.00  
 6502.....\$3.00  
 65C02.....\$7.00  
**//c Related**  
 IOU/MMU 344-0011/0021.....\$29.00  
 ROM 344-0272.....\$9.00  
 ROM (3.5" Drive) 344-0033.....\$29.00  
 TMG or GLU.....\$15.00  
 65C02.....\$7.00  
 6551.....\$3.00  
 IWM 344-0041.....\$29.00  
 Keyboard Map 342-0132.....\$9.00  
 Keyboard ROM 342-00265.....\$9.00  
**IIgs Related**  
 WDC65C816-7 (Dip).....\$49.00  
 VGC 344S0046-C (Upgrade).....\$29.00  
**II+ Related**  
 ROM Set (C0-F8).....\$29.00  
 Other II+Chips..\$3.00 to \$7.00 Call

### Manuals & Software

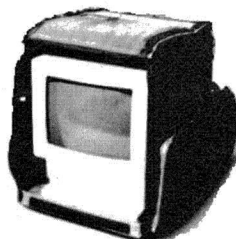
MouseWrite 1.5.7.....\$9.95  
 Copy ][ Plus V.8.x.....\$14.95  
 ProDOS Users Disk & Man.....\$15.00  
 PartyQuiz (4 Player).....\$19.95  
 Misc. Software, Games, Utils,  
 More. \$5.95 to \$19.95. Ask For List.  
 Apple Manuals Avail. Ask For List

### Bulk Disks

5.25" DSDD Disks 100 for.....\$16.00  
 3.5" DSDD Disks 50 for.....\$17.50  
 3.5" DSHD Disks 10 for.....\$6.50

## IIgs Carry Case \$19.95

This case will fit a whole IIgs system. Monitor, System Saver/Hard Disk, 3.5" drive, keyboard, cables and more! Folds up when not in use. Has side handles, leash & wheels. Very Sturdy Construction



# ALLTECH ELECTRONICS Co.

602 Garrison St. Oceanside, CA 92054

9-6 PM Mon.-Fri. • 9-5 PM Sat.

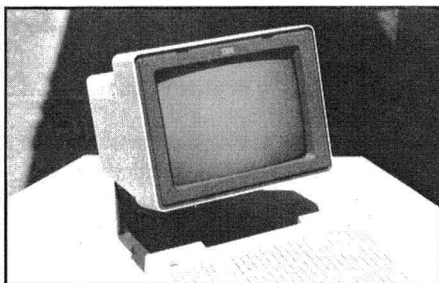
Orders Only:

# 800/995-7773

All other Inquiries: & Tech Support: 619/721-7733

Fax (School PO's, Quotes, Info.): 619/721-2823

BBS (FutureNet Site #30) 300-9600v.32: 619/721-0705



### Monitors

IIgs Compatible (Atari) RGB Monitor.....\$149.00  
 AppleColor RGB, IIgs (Refurb).....\$225.00  
 Apple Monitor ][ or /// (Refurb).....\$49.00  
 Apple Monitor //c (Refurb).....\$79.00  
 Apple Color Comp or Color 100 (exch).....\$109.00  
 Apple Color Composite (Refurb).....\$199.00  
 CGA Monitor w/RGB Option for //c.....\$149.00  
 Composite Green (Refurb).....\$35.00  
 Color Composite (Not for 80 Col Txt).....\$69.00

## SEQUENTIAL SYSTEMS

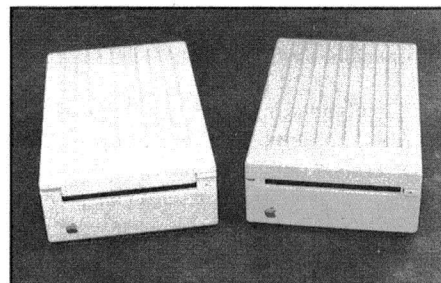
Sequential Systems RAM-GS 4096K.....\$139.  
 Meg 80 Z (1 Meg, Apple //e).....\$79.00  
 Q:Talk LTO (AppleTalk & 32K for IW-II).....\$69.00  
 RAM //c with 1024K (//c or //c+).....\$119.  
 bit Mouse card \$49.00.....with mouse.....\$65.00  
 SuperCOMM \$54.00.....SuperCOMM /c \$45.00

### RAM Cards

Coming Soon! //e AEC 1-4 Meg SIMM Card!  
 Extended 80 Column Card.....\$25.  
 Super Expander //c (Older //c's, 1024K).....\$119.  
 GS SuperRAM 4 Meg with 1 Meg.....\$74.  
 GS Super RAM w/2 Meg \$99.00. 4 Meg \$149.  
 CV Tech Memory Board 4 Meg \$205. 5-8Call

### SCSI Hard Disks

40 Meg External \$219.00 w/AEC Card.....\$259.  
 80 Meg Ext.....\$279.00 w/Apl SCSI.....\$379.  
 SyQuest 44.....\$299.00 SyQuest 88.....\$399.  
 Apple High Speed SCSI.....\$104.  
 RAMFast SCSI 256K \$169.00 / 1 Meg.....\$199.  
 SCSI Case & P/S for 3.5" or 5.25" HH.....\$49.  
 SCSI Case & P/S for Full Height 5.25".....\$69.

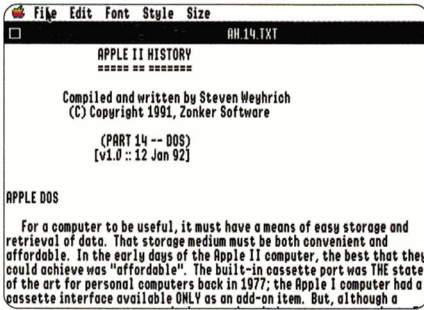


### Disk Drives

5.25" Generic Full Height (Refurb).....\$59.00  
 5.25" Generic Full Height w/19 Pin.....\$69.00  
 5.25" Apple Disk II (Refurb) add \$10.00 for above.  
 5.25" AMR HH (Mac LC, ROM 03 IIgs).....\$109.00  
 Apple DuoDisk 5.25" Exch.....\$129.00  
 Apple DuoDisk 5.25" (Refurb).....\$159.00  
 Apple UniDisk 3.5" (NEW).....\$159.00  
 AppleDisk 5.25" (Refurb).....\$165.00  
 Apple 3.5" 800K Drive Service Exchange \$95.00

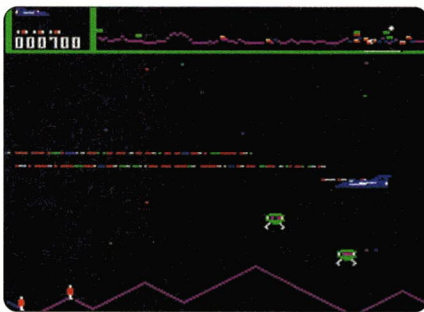
CA Residents please add 7.75% Sales Tax • COD Orders, Cash/Certified Funds Only • Minimum Shipping & Handling Charge \$5.00 (This covers most orders) • Some products are refurbished products and carry a 120 day warranty. • New products are covered by a one year warranty. All Repairs are warranted for 120 days. • Some RAM Chips may be new but pulled, all RAM has a one year warranty. • NO Returns without an RMA number, please call before shipping anything back to us. • A 20% Restocking Fee is applied to all returns due to incompatibility or unneeded product or Products purchased in error. Please be sure what computer you have before placing an order. • Educational P.O.s Accepted, Others on AOC only. • Prices and availability subject to change at any time without any notification whatsoever. \*Discounts on certain merchandise only and min. Qty Applies.





**Apple II History: fascinating reading for computer buffs of all ages.**

**A**pple II History was created by Steve Weyhrich as copyrighted freeware for the II family. It's a fascinating, well-rounded, and well-written electronic book — an ongoing project detailing the history of the Apple II computer. Its 23 chapters to date offer an insightful look at the Apple I, II, II Plus, IIe, III, IIc, IIc Plus, and IIGS, as well as peripherals, system software (DOS, ProDOS, and GS/OS), computer programming languages, software, magazines, and telecommunications.



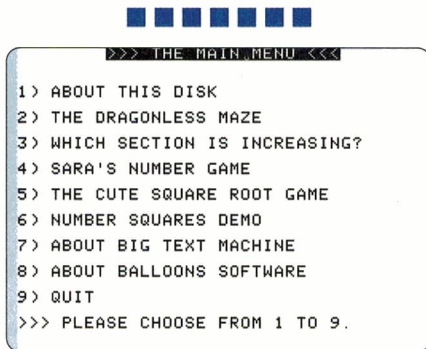
**Defender: outstanding fast action, arcade-style, on your small screen.**

**D**efender is Joe Holt's classic Apple II public-domain version of the popular arcade game. Its joystick-controlled split-screen interface puts you in the pilot's seat of an interceptor spaceship equipped with laser-guided bombs and artillery galore. It's a non-stop action game, as wave upon wave of alien spacecraft try to destroy you. A quick trigger finger and a watchful eye on the radar display might just earn you a place in the Defender all-time high-score Hall of Fame. With great animation and sound effects, Defender will keep you up night after night, month after month, just as it has thousands of Apple II players over the past five years.



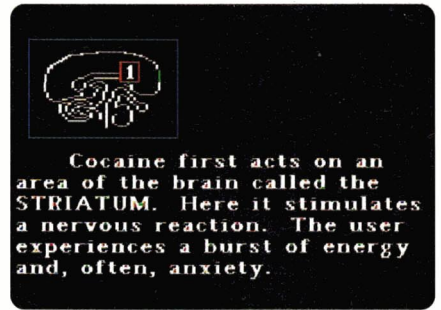
**Legends: weird-and-wonderful characters keep you on your toes.**

**L**egends of the Three Kingdoms was written by Steven Swanson of SJS Software for the Apple II family. This \$9.95 shareware program is a colorful and imaginative "swords and sorcery" fantasy/adventure game that casts you as the one person who can defeat an assortment of goblins, ogres, ice bats, flame ants, and blood frogs; invoke magic spells and conjure up packs of wolves; find the Orb of Truth; and return peace to the warring kingdoms. Upon payment of the shareware fee, you'll receive the all-new **Legends II** adventure scenario and the **Legends Builder** program, which lets you create your own public-domain hi-res adventure games.



**Arithmetic Games: helping kids develop a new attitude toward math.**

**M**ental Arithmetic Games by noted Educator and author Phil Shapiro of Balloons Software is a fun Apple II freeware math program for grades 2 through 4. With this one children can learn tricks for multiplying large numbers in their heads. According to Shapiro, "Children [ordinarily] have to wait until junior high before learning math's little shortcuts." Besides, the program makes math fun and sparks kids' interest in how numbers work.



**Newton's Apple: making science real for kids. Above, The Effects of Cocaine.**

**N**ewton's Apple is a freeware project funded by DuPont Corporation in conjunction with the National Educational Television series of the same name. Created by professional programmers at TelEd, this remarkable series of seven educational disks for the Apple II family translates scientific discoveries into real-life applications. Appropriate for K-12 classroom use, subject areas include Bridges and Tension, The Effects of Cocaine, Probability, Mirrors, Inertia, Neon Lights, and Tooth Decay.



**Bulla: Shoot anything that moves — but beware the creepy crawlies.**

**B**ulla 1 is just one of the many works-in-progress left behind when the French programming group Free Tools Association (FTA) disbanded. This GS freeware offering includes eight demo modules featuring stunning animation, rotating vector balls, scrolling text messages, music, an amazing rotating can of Coke, and the Scrolling Bulla Game. Although impressive to look at, the game is unfinished: no adversaries or scoring module. An unidentified programmer, however, used the accompanying source code to generate **Wonder Bulla in Terrific Land**, two Mario Brothers-style games. Which of you will create Bulla 3 with sound and music?



## PRODUCT INFORMATION

### America Online

Quantum Computer Services  
8619 Westwood Center Drive  
Vienna, VA 22182  
(800) 227-6364

\$7.95/month service fee  
plus \$6/hour connect time  
five hours free first month,  
two hours free each month  
thereafter

### CompuServe Information Service

P.O. Box 20212  
5000 Arlington Centre Blvd.  
Columbus, OH 43220  
(800) 848-8199

\$8.95/month unlimited  
connect time Basic\*Services  
extended services  
\$8/hour 1200/2400 bps,  
\$16/hour 9600 bps

### Delphi

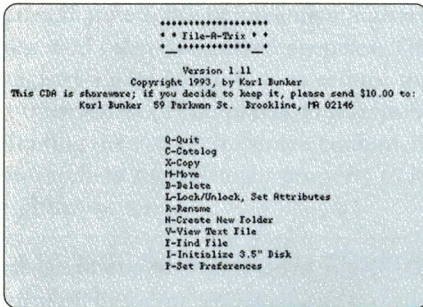
General Videotex Corporation  
1030 Massachusetts Avenue  
Fourth Floor  
Cambridge, MA 02138  
(800) 695-4005

\$10/month 4 hours usage  
\$4/hour thereafter  
20/20 Advantage \$19 enrollment  
\$20/month 20 hours usage  
\$1.80/hour thereafter

### GEnie

General Electric  
Information Services  
401 North Washington St.  
Rockville, MD 20850  
(800) 638-9636  
\$4.95/month plus  
2400 bps \$12.50/hour prime time  
(8 a.m. to 6 p.m.  
Eastern time weekdays),  
\$6/hour non-prime time  
9600 bps \$24.50/hour prime time,  
\$18/hour non-prime time

JOE KOHN IS A CONTRIBUTING EDITOR FOR *INCIDER/A+*. IF YOU'RE HAVING TROUBLE FINDING ANY OF THE PROGRAMS DISCUSSED IN THIS MONTH'S COLUMN, SEND A SELF-ADDRESSED, STAMPED ENVELOPE TO HIM AT 166 ALPINE DRIVE, SAN RAFAEL, CA 94901.



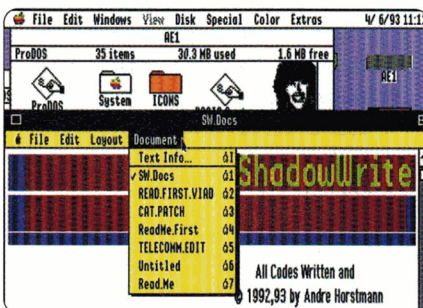
**File-a-Trix:** disk-management options galore to enhance your productivity.

**File-a-Trix**, a \$10 GS shareware program by Karl Bunker, is a CDA (classic desk accessory) that lets you find, manage, view, and print disk files, as well as format disks and create new folders, from within virtually any Apple II application. If you've ever had to quit AppleWorks GS because you forgot to format a data disk or started playing a new shareware game before reading the documentation, you'll certainly appreciate this one — it's one of the most useful and versatile utility programs ever released for the IIGS.



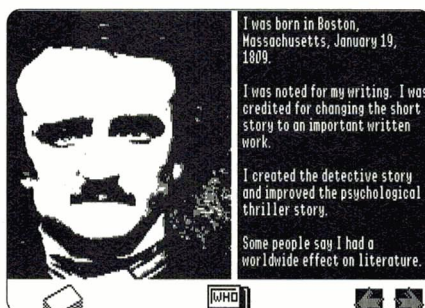
**SpyHunter:** thrills, chills, and fast-action race-car combat.

**SpyHunter GS**, freeware by Shane Richards of New South Wales, Australia, is a joystick-controlled race-car game with a twist: All the other GS-controlled contestants are trying to run you off the road while flaming, crushing, and machine-gunning you. Fifteen types of enemy cars are after you; fortunately, you have some weapons of your own, including the ability to drop oil slicks and to fire lasers, smart bombs, and missiles. Complete with smooth animation, music, and sound effects, SpyHunter GS is explosive fun for all ages.



**ShadowWrite:** the most-versatile free GS word processor available anywhere.

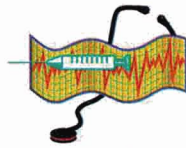
**ShadowWrite**, created by André Horstmann, a Swiss programmer with Bright Software, is an amazing, full-featured freeware word-processing package for the GS. It's a combination NDA (new desk accessory) and System 6 Finder extension that lets you work on up to eight Teach, text, or source documents at the same time while running any other GS/OS desktop application. ShadowWrite also includes a rich set of ancillary utilities that strip control characters, high bits, and unwanted carriage returns, plus an encoder/decoder to protect your valuable text from prying eyes. Far and away, it's the best free word processor available for the GS.



**Who Am I? Here's a clue:**  
"Once upon a midnight dreary . . ."

**Who Am I?** is Joel Helton's freeware HyperStudio-based interactive history lesson for the GS. This one's a real visual and educational gem: It combines a dozen scanned portraits by the Civil War-era photographer Mathew Brady with pertinent information about famous mid-19th-century literary and political personages. Students examine the historical clues and identify the characters. (The program provides answers when students respond incorrectly.) As "coffee-table" software for history buffs, *Who Am I?* is captivating. As educational software, it's a top-rated adjunct to social-studies courses.





## APPLE CLINIC



# MOST WANTED

Let's lead off the roll call with some advice about preventive medicine — then we'll get to the nuts-and-volts.

By CYNTHIA E. FIELD, Ph.D.

### HOT STUFF

RECENTLY A LAW-ENFORCEMENT agency asked us to help identify the rightful owner of an Apple II system recovered in a sting operation. No problem, we thought. Assuming the original owner sent in a product-registration card, we figured Apple Computer would be able to link up the police with the unfortunate individual whose Apple was lifted.

Wrong! An Apple spokesman told us that it's virtually impossible to track down the owner of an Apple computer, particularly one purchased before 1990. Seems our favorite *computer* company's registrations are archived on *microfilm*. Worse, the information is classified by owner's name and not by hardware serial number.

The Apple representative suggested that the detectives write to the **Apple Product Registration Processing Center** (Apple Computer, Inc., P.O. Box 814049, Dallas, TX 75381-9931), but he wasn't hopeful. A search, we were told, would be extra-

ordinarily time-consuming. (We'll keep you posted on that front.)

Meanwhile, you can and should take proactive measures to protect your computer system — and other household valuables, as well:

- **First, take a complete inventory of your equipment.** Create a handwritten document or electronic database describing each piece of hardware, including make, model, and serial number. It's a good idea to record the purchase date and price, too. When you file the inventory (a fire safe or safety-deposit box are two good locations), include photographs or a videotape of the equipment as well as bills of sale and receipts.

- **Second, engrave each piece of equipment with an identifying number.** Marked goods are less desirable because they're more difficult to fence. (Contact your local police or sheriff's department to learn about programs such as **Operation**

**ID.**) There are a couple of good reasons why you *shouldn't* use your Social Security number. For one thing, you don't want it to fall into criminal hands. For another, it's easier for law-enforcement officers to return recovered property to you if you use your driver's-license number. This information is readily available to police through your state's motor-vehicle registry. Use an inexpensive engraving tool — you should be able to buy an electric engraver for less than \$10 at a local hardware store. Print your state's abbreviation followed by your driver's-license number. Some police departments even have engravers you can borrow.

- **Place a warning sticker on your equipment.** Put another one on a window near the front door of your house — it can deter theft.

- **Depending on the level of security you need, consider other protective measures such as cables and locks.** We describe these and other security measures more fully in the article "Maximum Security" (October 1992, p. 39).

- **If your Apple II is stolen, report the theft immediately to the Stolen Computer Registry.** The Registry is a free service offered by the **National Computer Exchange** (NACOMEX), a leading used-computer broker. According to Robert Zises, president of NACOMEX, the Stolen Computer Registry maintains a relationship with most major insurance companies, including Liberty Mutual and Safeware, a computer-insurance firm. If a stolen Apple II is insured by a participating company, says Zises, the insurer provides notice of the theft automatically to the Stolen Computer Registry. Individuals, companies, and schools can register directly by listing the make, model, and serial numbers of stolen computers and peripherals on a special form provided by the Stolen Computer Registry. Information in the registry's database is made available to legitimate professional



sales channels, law-enforcement authorities, and other authorized agencies. The registry's goal is twofold: to reduce the attractiveness of computers to thieves by limiting the market for stolen equipment and to help return stolen property to its rightful owner.

### LET'S BE CAREFUL OUT THERE

#### Stolen Computer Registry

P.O. Box 1490  
Madison Square Station  
New York, NY 10159  
(212) 777-1291  
(212) 777-1290 fax

## LOCK UP

I'VE UPGRADED TO SYSTEM 6 FOR my Apple IIGS, but I'm running into a problem trying to load **synthLAB**, the music application that comes with the operating system. I have one 3.5-inch drive and 3.25 megabytes of RAM. I start up my GS with System 6, but when I try to load synthLAB, I have to swap numerous disks. My computer invariably locks up.

**Ron Walters**  
Astoria, OR

Short of buying a hard-disk drive, Ron, here's a method that will eliminate the need for disk swapping when you run synthLAB. You've got a lot of memory in your GS, so put it to good use as a **RAM disk**.

Before setting up a RAM disk, copy **Tool035** from the synthLAB disk to the **Tools** folder within the **System** folder on your **System** disk. Also copy the **SL Icons** file from the synthLAB disk to the **Icons** folder on your **System** disk.

If your **System** disk is full, prune it by removing one or two nonessential font files. Just be sure you perform surgery on a copy of the **System** disk, not the original.

Restart your GS with the **Tool035**-icon-enhanced **System** disk. Pull down the **Apple** menu and select **Control Panels**. Open the **RAM** option and set the RAM disk to **2048K** with a **RAM cache** of **512K**.

Close the Control Panel. Pull down the **Special** menu, choose **Shut Down**, and restart your machine. As you may know, you have to restart the GS for some Control Panel changes to take effect.

Double-click on the **RAM-disk** icon, which appears on the desktop. (It looks like a miniature circuit board.) Double-clicking opens the RAM disk's window.

Insert the synthLAB disk into the 3.5-inch drive. Double-click to open the **synthLAB** window. Use the mouse to select two items: **synthLAB** and the **Seq.and.Instr** folder (which contains musical sequences and instruments).

Click on the **synthLAB** application and then shift-click (hold the shift key down while clicking) on the **Seq.and.Instr** folder. Shift-clicking lets you drag the two items to the RAM-disk window simultaneously.

After copying's done, remove the 3.5-inch synthLAB disk from your 3.5-inch drive; in its place insert the **System** disk. Double-click on the **synthLAB** icon in the **RAM-disk** window to start the application. Before you know it, you'll be jammin' with your GS.

Unfortunately, every silver lining has a cloud, Ron. The contents of a RAM disk are volatile; they vaporize when you turn off your computer.

That means each time you want to make music on the GS, you'll have to open the **RAM-disk** window and recopy synthLAB and its associated files from the 3.5-inch disk to the RAM disk.

## SPEEDING TICKET

I JUST BOUGHT TWO APPLE II computers. Neither the ambiguous **User's guides** that came with the systems nor the local Apple reps can answer my questions. I know I can buy accelerators to speed up my computers, but first things first. What's an **MHz**?

**Brian "Lost in Stockton" Terrill**  
Stockton, CA

Unfortunately, Brian, ambiguity is the name of the game when it comes to microprocessor-chip speed — which is measured in **MHz (megahertz)** — and the actual speed of your Apple II, which is a composite of several variables. In the past few years, computer vendors, particularly in the world of IBM PC clones, have begun to use the simplistic microprocessor speed as a marketing tool. Is it any wonder people are confused?

Technically **1 megahertz** equals **1 million cycles per second**. At first blush, you might conclude that the larger the number of megahertz the faster the system. Maybe yes, maybe no.

On the PC side, for example, a 50-megahertz PC with an 80486 chip does operate

faster than a 20-megahertz 486. But paradoxically, a 20-megahertz 486 runs faster than a 20-megahertz 386. (Among other things, the 80486 has more transistors to control information flow.) In short, megahertz may be a reliable indicator of system speed only if you're comparing computers with the same microprocessor. You can't compare apples with oranges.

In the Apple IIe and IIc, the 6502 or 65C02 microprocessor runs at 1 megahertz. By contrast, the 65C02 chip in the IIc Plus runs at 4 megahertz. And, as you may know, depending on the setting you choose in the machine's Control Panel, the GS' 65C816 chip runs in either **Normal** (1 megahertz) or **Fast** (2.8 megahertz) mode. But numbers alone don't tell the story.

That's because chip speed is only one part of a computer's efficiency equation. As you mention, Brian, you can speed up operations by installing an accelerator card in your Apple II. True, the accelerator replaces the computer's original microprocessor with a faster version of the same chip. But accelerator cards speed up your system in yet another way: They incorporate a bank of RAM (**random-access memory**) chips to create a **RAM cache**. **Stash** would have been a better (albeit low-tech) term because an accelerated Apple II stores frequently used parts of a program temporarily in the RAM cache.

Other hardware variables that can affect system speed include the kinds of disk drives you use. Writing to and reading from a hard drive occur much faster than writing to and reading from a floppy-disk drive, for instance.

The type of software you use is another variable. GUI (**graphical user interface**) software makes heavy demands on the Apple IIGS (or Mac or PC, for that matter), while text-based programs such as AppleWorks 3.0 (a.k.a. AppleWorks Classic) seem to fly, especially on an Apple IIc Plus.

The bottom line? If you use megahertz to evaluate a system's speed, you're seeing only part of the picture. We can tell you from experience that, depending on the applications we use, a 2.8-megahertz GS can work faster than a 16-megahertz Mac LC, while the Mac beats the dickens out of a 16-megahertz 386 PC running Windows. But a 50-megahertz 486 PC leaves them all choking on its dust.



## SERVING TIME

I BOUGHT MY APPLE IIGS IN 1989. Will I be able to get a new lithium battery when this one goes dead? And will I be able to replace it myself?

**Ernest C. Duval**  
Saratoga Springs, NY

Time is probably running out for the battery in your GS, Ernest. Battery life depends on a number of factors, including how often (and for how long) your GS is turned off. Rather than wait for the inevitable day when the battery poops out, order a replacement now. Nite Owl Productions' **Slide-On** battery boasts a ten-year shelf life. (We keep a replacement handy so we can replace the replacement we installed in our GS a couple years ago.)

Nite Owl Productions says installation is easy. Kinda — if you're not timorous about opening your GS and wielding a scalpel, you can remove the old battery and install the new one without being a trained professional. Remove the power supply first. (It pops out.) Then use scissors, wire snips, or fingernail clippers to cut the old battery-wire leads.

The new battery slides onto the old leads. The whole process takes less than five minutes (if you have a good idea of what you're doing). But we'd recommend that first-timers ask a friend to supervise the operation and lend a hand, if necessary.

### POWER UP

**Slide-On**  
Nite Owl Productions  
Slide-On Battery Dept.  
5734 Lamar Ave.  
Mission, KS 66202  
(913) 362-9898  
\$14.95 plus \$2 shipping

## FRESH START

I'M THE FINANCIAL DIRECTOR OF a soon-to-be-opened preschool in Michigan. I look forward to the job, but I'm trying to find software to help overcome the tremendous amount of paper shuffling that accompanies such a position.

**Jerry Peplinski**  
Uby, MI

Although you tell us you use an Apple IIGS, Jerry, we can't think of a better program for running a preschool than

**AppleWorks 3.0**, which, as you know, works on virtually any Apple II. The program's word processor, with built-in spell checker and mail merge, can help you prepare tuition statements and other documents. The database manager is fast and flexible — two features that every busy administrator appreciates. You can use this module to keep student and financial records. And the AppleWorks spreadsheet module is just what you need to prepare yearly budgets or cash-flow projections.

You can create the word-processing layouts, databases, and worksheets you need from scratch — millions of AppleWorks users do. But because you'll be busy enough just preparing for opening day at your new preschool, you should consider purchasing predesigned templates, such as the **OfficeWorks** package offered by K-12 Micromedia Publishing.

OfficeWorks includes ready-made forms, databases, and worksheets. Templates include Accounts Payable Ledger, Balance Sheet, Check Register, Daily Reminder, Income Statement, Invoice, Payroll Register, and Purchase Order. In short, OfficeWorks includes just about everything a preschool finance office would need.

OfficeWorks templates work with AppleWorks 3.0, so you'll need to invest in that program, too. But, according to Tony Schweiker of K-12 Micromedia Publishing, you can also use the templates with **AppleWorks GS**, version 3.0's big brother.

### CHECKING THE BOOKS

**AppleWorks 3.0**, \$249  
**AppleWorks GS 1.1**, \$299  
Claris Corporation  
5201 Patrick Henry Drive  
Santa Clara, CA 95052-8168  
(800) 628-2100 orders  
(408) 727-8227 customer relations  
(800) 800-8954 fax answer line  
(800) 735-7393 voice answer line

**OfficeWorks**  
K-12 Micromedia Publishing  
6 Arrow Road  
Ramsey, NJ 07446  
(800) 292-1997  
(201) 825-8888  
(201) 825-0582 fax  
requires AppleWorks  
\$49.95

## LIFER

RECENTLY I PURCHASED AN ADB (Apple Desktop Bus) mouse for my GS. When I use this optical mouse

(which I really prefer) instead of the Apple mouse, I have to click the mouse button once for no apparent reason before I can click again to select a menu item, open a window, or launch a program from the System 6 Finder.

According to the box the mouse came in, MSC Technologies, Inc., is the manufacturer, but the address and phone number listed are no longer valid. Apparently the firm has moved, sold out, or gone out of business (which would no doubt seriously affect the lifetime warranty I received).

Do you know what the situation is or how I can contact the company?

**John M. Leggett**  
Milwaukee, WI

According to a technical-support representative at Mouse Systems Corporation, some of the company's older ADB mice have a keyboard timing error.

Translated, that means that on your Apple IIGS, John, the keyboard (which is also an ADB device) and the optical mouse aren't in sync.

By clicking the mouse at the Finder you're putting a signal on the ADB bus that synchronizes the two ADB devices. That's why everything works fine after you give your system that first wake-up call.

Mouse Systems has corrected the problem by incorporating a new "pacemaker" into current versions of **Little Mouse ADB**.

As for that lifetime warranty you mention: Call the company for a return authorization number. They'll swap your old mouse for a new one, free.

### MOUSING AROUND

**Little Mouse ADB**  
Mouse Systems Corporation  
47505 Seabridge Drive  
Fremont, CA 94538  
(510) 656-1117  
(510) 656-4409 fax  
\$121.49

APPLE CLINIC IS A FORUM FOR ANSWERING YOUR QUESTIONS ABOUT APPLE II AND MAC HARDWARE AND SOFTWARE. WRITE TO APPLE CLINIC, *INCIDER/A+*, 80 ELM STREET, PETERBOROUGH, NH 03458, AND ENCLOSE A SELF-ADDRESSED, STAMPED ENVELOPE. BECAUSE OF THE VOLUME OF LETTERS, HOWEVER, WE'RE UNABLE TO RESPOND TO ALL QUESTIONS INDIVIDUALLY.



# MS-DOS APPLEWORKS\*

\*inCider A+ Magazine, August, 1991

# SuperWorks™

## INTEGRATION FOR THE NEXT GENERATION OF PC USERS

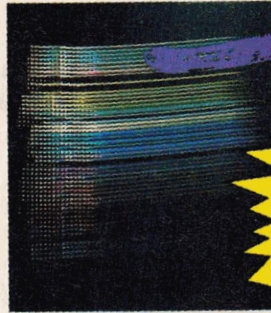
UNITED STATES NATIONAL DEBT -- 1970 TO 1985

| Year | Population  | Debt                | Per Capita Debt |
|------|-------------|---------------------|-----------------|
| 1970 | 222,815,000 | \$1,222,000,000,000 | \$5,480         |
| 1975 | 228,815,000 | 1,572,000,000,000   | 6,870           |
| 1980 | 234,815,000 | 2,272,000,000,000   | 9,710           |
| 1985 | 240,815,000 | 3,142,000,000,000   | 13,050          |

Main Menu

ADD FILES

| Name     | Type of File   | Size | Date      | Time    |
|----------|----------------|------|-----------|---------|
| WTF001.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |
| WTF002.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |
| WTF003.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |
| WTF004.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |
| WTF005.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |
| WTF006.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |
| WTF007.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |
| WTF008.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |
| WTF009.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |
| WTF010.M | Word Processor | 56   | Mar-18-91 | 9:05:28 |



**NEW**  
**VERSION 2.0**  
 NOW WITH SPELL CHECKER,  
 EMS SUPPORT, GRAPHICS,  
 PCX DISPLAY, AUDIO SUPPORT  
 AND MUCH MORE.

**WHAT ARE THE EXPERTS SAYING?**

"MS-DOS APPLEWORKS" \*inCider/A+ 8/91"

What do you say to an "MS-DOS clone" of Appleworks 3.0? Remarkable Technologies' SUPERWORKS (\$199), has caused more than one double-take around here. SUPERWORKS functions like Appleworks on any IBM PC except that it's faster. If you use Appleworks and can train your fingers to find their way around an MS-DOS keyboard, you can use SUPERWORKS. It even incorporates some features for which Appleworks users pay extra.

★★★★ inCider Magazine, November 1991

Miami Herald/Craig Crossman 8/12/91

"Known as SUPERWORKS, this Appleworks clone does almost everything Appleworks does and more. If you know how to use Appleworks, you can use SUPERWORKS without picking up a manual. SUPERWORKS brings the functionality of Appleworks to the MS-DOS world while leaving behind many of its limitations."

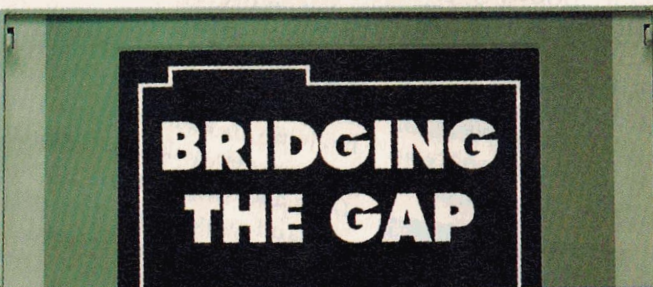
Remarkable Technologies announces a breakthrough product which now delivers AppleWorks power on an IBM PC or compatible. SuperWorks lets AppleWorks users step up to a PC with AppleWorks files, utilizing an AppleWorks work-alike integrated package.

New features provide full & complete integration of all capabilities including; spreadsheet (3-D capability), database (the easiest to use and one of the most powerful anywhere), word processing with spell checker, improved communications package, new and improved graphics, new SWAT macros, the best in the industry and much more.

SuperWorks uses only 180K on diskette and it's the only integrated package developed for the notebook.

As a special introductory offer to inCider readers, SuperWorks is now available at the special low price of \$199.00. SuperWorks has a regular retail price of ~~\$400.00~~.

- ENTIRE PROGRAM USES ONLY 180K ON DISKETTE
  - ONLY INTEGRATED PACKAGE FOR NOTEBOOKS
- 30 DAY MONEY BACK GUARANTEE**






 **SUPERWORKS BRINGS APPLEWORKS FUNCTIONALITY TO THE PC** 



**Special introductory offer**

Please send me SuperWorks for only \$199.00 (plus \$5.00 S&H).

Indicate Disc Size:  5 1/4" Size  3 1/2" Size

     EXP. DATE \_\_\_\_\_

CARD NUMBER \_\_\_\_\_

SIGNATURE \_\_\_\_\_

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

Mail to: Remarkable Technologies, 245 Pegasus Ave., Dept. IM693, Northvale, New Jersey 07647-9971

Circle 33 on Reader Service Card.

REMARKABLE TECHNOLOGIES, 245 PEGASUS AVENUE, NORTHVALE, NJ 07647 • TO ORDER CALL TOLL-FREE: 800-782-1955

FOR TECHNICAL INFORMATION: 201-767-5522 • FAX: 201-767-7227

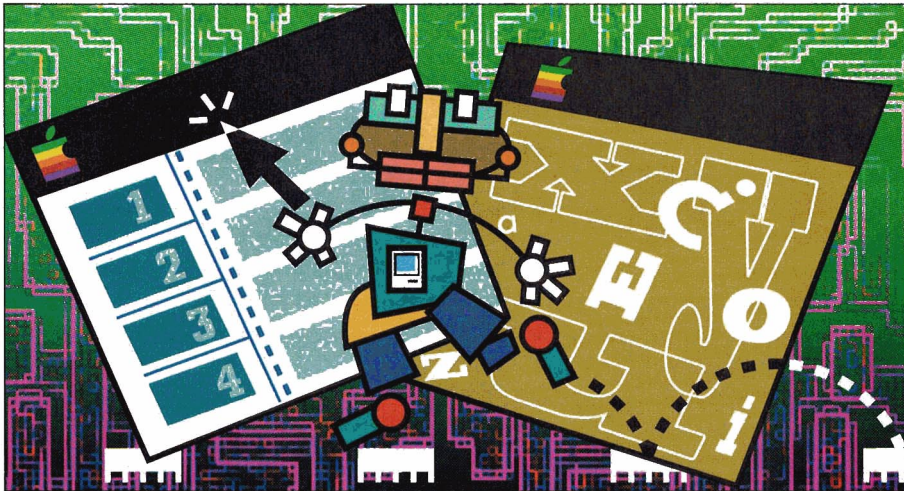
CALL FOR NETWORK AND SITE LICENSING



# REVIEWS



TROY VISS



## SWITCH-IT! 1.0.2 VS. THE MANAGER 1.0

Here's a question for the "power users" among you: Which top-of-the-line Apple computer lets you switch instantly between programs — without going through the hassle of quitting one and booting the next? It's the Apple IIGS, of course. Yes, courtesy of System 6, multitasking "for the rest of us" has finally arrived.

Switch-It! and The Manager both let you keep open as many GS desktop applications at one time as you can fit into available random-access memory

(RAM). The more RAM, the more programs. When we say *desktop applications*, we're talking about 16-bit programs showing a menu bar across the top of

the screen like the Finder, with a rainbow apple near the left end of the menu bar, and with pull-down menus. Most authentic GS programs conform to the desktop metaphor. Neither The Manager nor Switch-It! lets you run 16-bit and 8-bit programs — such as AppleWorks 3.0 or Publish It! 4 — simultaneously, although The Manager lets you run 8-bit applications one at a time when no 16-bit applications are open.

### IMPROVING ON A CLASSIC

Most Apple II users have already experienced instant program switching, thanks to integrated products like AppleWorks and AppleWorks GS, which let you move from one module to another, from word processor to database to spreadsheet and back again.

The Manager and Switch-It! take it a step further, letting you toggle instantly among virtually all desktop applications. You can, in effect, build your own custom integrated program from your favorite stand-alone applications, adding and subtracting modules to suit whatever you're doing at the moment. Of the several dozen programs tested for this review, more than half support the Clipboard, making it easy to cut and paste among programs the same way you cut and paste among AppleWorks modules. In addition, Switch-It! comes with two new desk accessories (NDAs) — *ClipIt* and *ScrapMaster* — which help you cut and paste among programs that don't support the Clipboard.

There's a limit to all this good news, though. Both programs are constrained by something called *bank-zero* (sometimes called *zero-page*) memory. This vital area of RAM is small, with only 38K available for applications. Most programs, like the Finder, use about 4K of it, but a few popular GS programs use more. AppleWorks GS, for example, uses 16K of this area, and HyperCard IIGS uses 20K. With the advent of genuine multitasking on the GS, we can anticipate that most popular programs will be rewritten or patched to use a minimum amount of bank zero.

### ★ ★ ★ ★ ★ SWITCH-IT! 1.0.2

**Sequential Systems, Inc.**  
1200 Diamond Circle  
Lafayette, CO 80026  
(800) 759-4549 sales  
(800) 999-1717 customer service  
(303) 666-4549  
(303) 665-0933 fax

- program switcher
- 1.75MB Apple IIGS
- 4MB recommended
- ROM01 or ROM03
- System 6.0
- one 3.5" drive
- hard drive recommended
- \$69.95

### ★ ★ ★ ★ ★ THE MANAGER 1.0

**Seven Hills Software Corp.**  
2310 Oxford Road  
Tallahassee, FL 32304-3930  
(904) 575-0566  
(904) 576-9415 technical support  
(904) 575-2015 fax  
**SEVENHILLS America Online, GENIE  
75300,1743 CompuServe**

- multiple-application environment
- 2MB Apple IIGS
- 4MB recommended
- System 6.0
- hard drive recommended
- \$69.95



Since memory usage is so critical, The Manager includes a unique utility called *The Manager Memory Map 1.0*, which displays a detailed accounting of memory status, including how much bank-zero memory is left, how much RAM is available, and how much RAM each open application is holding hostage.

Switch-It! comes with a new desk accessory called *Memory Bar NDA* so that inquiring minds can keep an eye on how much RAM is left. Too bad *Memory Bar* doesn't indicate how much bank-zero memory remains, because that's probably the limiting factor for how successfully you can use Switch-It! or The Manager.

Still another problem is that some applications ask the GS *Memory Manager* for a chunk of bank-zero RAM and assume the request was granted, without waiting for feedback. If The Manager or Switch-It! has a program open and a rogue application swipes some of the bank-zero memory already in use, a system hangup or crash almost always results.

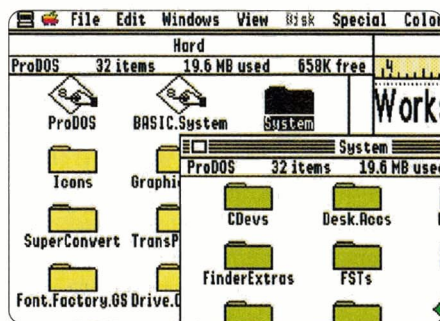
Here's a temporary fix: Use such applications one at a time and start them first. That way the program can grab the bank-zero memory it wants and the programs you boot after it can request the RAM they need from what's left. Both Seven Hills and Sequential Systems are notifying programmers of this quirk; rewriting problem programs is the ultimate answer to conflicts that result from sharing bank-zero memory.

To work properly, both The Manager and Switch-It! assume that each application's author observed certain programming standards. Both programs try to accommodate nonstandard programming, and for nearly all popular desktop applications they succeed. Both products come with lists of compatible programs; The Manager lets you tag programs as incompatible so that you don't launch them accidentally within The Manager and provoke a system crash.

### CRITICAL DIFFERENCES

Now to the nitty-gritty: The most important difference between the two programs is that Switch-It! is a *switching* program while The Manager is a true *multitasking* program. With either The Manager or Switch-It! you can keep several desktop applications open and

ready to go the instant you switch to them. (Switching to another application is as easy as selecting from Switch-It!'s *Switch* menu or The Manager's main menu. With The Manager, you can also switch between programs by clicking in an open application's window.) But The Manager offers an additional capability: You can keep one application active in the foreground while other applications are working simultaneously — not just waiting — in the background. For example, while you're bringing your electronic checkbook up to date in the foreground, your communications program in the background might be executing a macro that downloads your e-mail auto-



### The Manager brings MultiFinder-style convenience to the Apple IIGS.

atically and has it waiting for you when the checkbook finally balances.

How does it do that? By taking advantage of the fact that computers spend most of their time waiting. Your GS can execute almost 3 million instructions per second. The CPU (central processing unit) uses a certain fraction of those instructions for "maintenance" activities even when it's idle, and, granted, processing a single keystroke requires many instructions. Still, most of the time your GS is simply lounging on top of your desk. The Manager detects unused processor time and makes it available to background applications.

### PLUS AND MINUS

The Manager's documentation is typical of Seven Hills products — plain English accompanied by helpful illustrations and impressive attention to detail. The manual includes a tutorial, an index, and a complete reference section that walks you through installation. (It goes into the *System* folder of your boot

drive or runs from a 3.5-inch disk.) Supplemental documentation on disk is good — there's even a demo program on multitasking.

By contrast, Switch-It!'s unpolished, text-only manual and errata sheet assume you're familiar with the Finder. There's no index or tutorial. Like The Manager, Switch-It! installs on the boot volume of your hard disk or runs from its own 3.5-inch disk. The manual recommends installing Switch-It!'s accompanying NDAs as well as the application itself. With System 6 so fat it's popping the rivets off an 800K disk, it would have been helpful to include instructions on weeding out the *System* disk to make room for Switch-It!'s desk accessories.

### PICKS AND PANS

Switch-It! and The Manager are both nifty, stable programs with great promise. Prospective buyers should think about how often they move back and forth between desktop and non-desktop applications — inconvenient with either of these programs, but especially so with Switch-It!. If you simply installed Switch-It! on your hard drive, threw away the manual, and just played with it until you figured out what works and what doesn't, you'd end up with a 16-bit switcher program — sort of a "no frills" version of The Manager. But why would anyone use Switch-It! when for the same money you can have an elegant program with sizzling possibilities and multitasking talent?

You don't save much disk space — Switch-It! is 68K while The Manager is 71K — and both programs have the same problems with bank-zero memory and nonstandard programming. Neither can run programs the other can't. Both programs retail for \$69.95, so price has nothing to do with your decision. But everything in The Manager's shrink-wrap is seamless, while Switch-It! is a jumble.

Undoubtedly the biggest thing to consider is The Manager's multitasking ability. I predict GS owners are going to see some eye-popping things done with multitasking in the near future. At least for the time being, The Manager is the only way to get in on the fun.

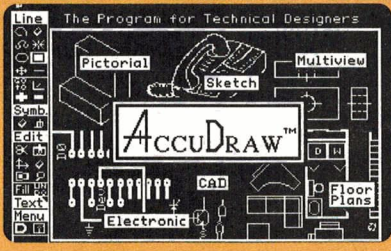
**Jon McCreight  
Princeton, MN**



## ACCUDRAW 1.1B

Kitchen Sink Software, Inc.  
903 Knebworth Court  
Westerville, OH 43081  
(800) 235-5502  
orders, catalog requests  
(614) 891-2111

- computer-aided-design program
- 64K Apple IIe/IIc/IIc Plus/IIgs
- mouse recommended
- \$99.95 includes *Electronic* or *Floor Plan* module
- \$99.95 plus \$10 per computer school site license
- \$299 network version



AccuDraw could almost be considered two programs in one: a low-end CAD (*computer-aided design*) program for junior-high-school students plus a moderately powerful drawing program for individuals with serious design requirements. Whatever your needs, rest assured that AccuDraw is both powerful and well documented — but troublesome bugs and lack of support for high-resolution printers and plotters mar an otherwise impressive performance.

Built around standard hi-res graphics and text screens, AccuDraw runs on virtually any Apple II. GS users and others with RGB (*red/green/blue*) monitors may find it more comfortable to do long-term drafting projects on a monochrome monitor, because even after you change the GS Control Panel's *Display* setting to *monochrome*, purple and green "ghosts" shadow some screen elements. Although a standard mouse is recommended, the program also supports keyboard, optical (A+) mouse, joystick, game paddles, KoalaPad, or TouchWindow.

### PROCEDURAL DETAILS

Most of AccuDraw's utility and setup functions are located on a *Main Menu*. This text-based screen features the menu itself, a *Help/Tool* window, and a display showing current file information. The

program boots to this screen and returns to it whenever you invoke the *Menu* command from the program's graphics-based drafting-mode screen.

An *Icon Tool Menu*, similar to the tool palettes included in other Apple II or Mac graphics programs, is located on the left-hand side of the drafting screen. Several erasers and an *Undo* tool let you edit your work easily, while the snap-to feature helps inexperienced users plot points more accurately.

A special "prompt window" at the bottom of the screen displays the status of a selected drawing tool and lets you choose a tool modifier by typing a status code. Eleven line codes are available; number 5, for example, lets you create dotted lines. The prompt window also displays the cursor's location as *x* and *y* coordinates and shows type of movement allowed (horizontal, vertical, or both), plus graphics symbols currently available. In addition, it houses AccuDraw's *Calcpad*, where you can perform standard four-function computations and those involving Applesoft math expressions, such as *SIN* (*sine*) or *SQR* (*square root*).

To label your drawings, you can use the program's built-in *AccuFonts* as well as bit-mapped Beagle fonts and so-called GS fonts of up to 6K file size. Other attractive features include rotating text, symbols, or geometric primitives (shapes) and drawing multiple lines simultaneously. In short, you can create impressive designs and use virtually any English or metric scale, including model-railroad scales.

### FEATURES AND FLEXIBILITY

In fact, AccuDraw has a lot of features in common with mainstream CAD programs. For one thing, you can embellish selected parts of your design with standard or custom fill patterns. Among other shared functions are the ability to draw multiple layers and to use special graphics libraries containing architectural, engineering, and landscape drawing symbols. AccuDraw comes with *General*, *Furniture*, and *Landscape* libraries and your choice of an *Electronic* or *Floor Plan* library (also available separately).

Despite many similarities to other drafting software, however, AccuDraw isn't a "true" drawing or CAD program because it doesn't treat the graphics you

create as discrete objects you can select and edit individually. Instead, you edit parts of your drawing by first capturing an area with AccuDraw's *Edit Box*. (It works like a paint program's marquee tool), then erasing it or copying it to the Clipboard. You can also alter the selection's appearance by invoking mirror, flip, and inverse functions. A "fat bits" mode lets you zoom in for touch-ups.

With one eye on the future, Kitchen Sink Software has configured AccuDraw to accept two specialized types of program extensions currently under development: *D-Mods* and *SAC Tools*. *D-Mods* are modules that accommodate specialized applications such as interior design. *SAC Tools* are small utilities reminiscent of GS desk accessories — a flow-chart aid, for example. Registered users of AccuDraw will be notified automatically when these extensions are released.

### UNTAPPED POTENTIAL

AccuDraw doesn't support high-resolution printers or plotters. Instead, the program uses an integrated version of Beagle Bros' Triple Dump dot-matrix printer routines. The software supports some two dozen popular printer families and 29 interfaces, but maximum print resolution is only 72 dpi (*dots per inch*), provided by an ImageWriter I or II.

Creating a drawing at maximum resolution means scrolling around a composite AccuDraw image that covers nine screens. By contrast, single-screen drawings sport only 24-dpi resolution and suffer from a bad case of "the jaggies" when printed. To the program's credit, printouts at either 24- or 72-dpi resolution feature precise dimensions.

AccuDraw sports some nifty features, including a built-in screen saver and file-access security system. Unfortunately, the program still has some rough edges. I experienced a number of lockups, crashes, and corrupted files during the review process. Then, too, the user interface is somewhat quirky. A little work on the manual and on the program itself — including the addition of support for high-resolution printers and plotters — would earn this promising drawing program for Apple IIs high marks.

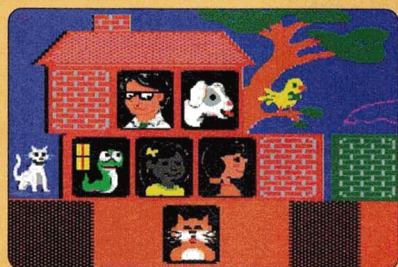
Garry Howard  
Calgary, Alberta, Canada



## TALKING FINGERS 1.1

Media Learning Center  
50 Acacia Avenue  
San Rafael, CA 94901-8008  
(415) 456-4853

- typing and writing-skills enhancement
- 128K Apple IIe/IIc/IIc Plus/GS, Mac LC with Apple IIe Card
- Echo Speech Synthesizer recommended
- \$149 single user
- \$399 5-pack, \$499 8-pack
- \$1200 site license
- \$1.50 each extra Trophy disks
- \$34 each extra manuals



Picture a tiny child with fingers perched on the keyboard, staring intently at an Apple II screen, oblivious to the commotion in the surrounding room. She sounds out words as they appear and then types them. Impossible? Not with Talking Fingers, a phonics-based whole-language typing and writing curriculum for 5- to 12-year-olds developed by neuropsychology experts at Media Learning Center. Given an appropriate environment, this unique program can both excite your students and help them become better writers.

Talking Fingers includes 40 units focusing on the 40 speech sounds: 21 consonants, five short vowels, five long vowels, five digraphs, and four diphthongs. Through structured lessons and game-style activities children learn to associate the *fff* sound with the *F* key (pressed with the “pointer” finger on the left hand), for example, and the *aaa* sound with the *A* key (pressed with the “pinkie” finger on the left hand). As they become familiar with other keys, children learn to blend sounds such as *fa*, *faf*, *fat*, and *fat cat*. Eventually, children learn to write complete sentences.

The program’s “say-touch” approach features cartoon-style characters like Jik, the little boy who “lives” in the keyboard under the *J* key. In Talking Fingers, the

left- and right-hand sides of the keyboard are two houses. Characters whose names begin with a particular sound live in a room (key) on one of the house’s floors (rows). As children master each sound and its associated keystroke(s), they can begin to write progressively longer stories of their own.

In *Sound Games*, one of three Talking Fingers activities, children aged 5 to 8 learn to associate beginning, middle, or ending letter sounds, syllables, or whole words with colorful images on screen. For instance, in one lesson the child presses the *H* key each time a picture of an object that begins with an *H* appears. Matching words include *head*, *hat*, *hippopotamus*, *hamburger*, and *hive*. When you make a match, music plays and Gup the Guppy leaps out of his fishbowl. Students can progress to the next lesson after achieving an accuracy of 70 percent or another level set by the teacher.

*Typing Challenges*, a keyboard activity for children aged 6 to 12, combines speech sounds with touch-typing skills. An Echo speech synthesizer sounds out the letter, letter sequence, or word on screen. The child vocalizes the sounds and types the target sequence on the keyboard. In time, the student should be able to type anything he or she can say.

As the child types letters corresponding to the target sound, an animated story character moves along the bottom of the screen. Jik walks, Al the Alley Cat sashays, Tuk the canary flies. When you finish typing a complete line of text, the character performs an animation. Tuk the yellow canary transforms himself into a true-blue, all-American eagle, for example. When you make a mistake, clue hands pop up to show the correct key. These lessons are fun, but would be better if the target letters or words remained visible while the child typed.

### EXTRAS

*Discovery TextWriter* was a favorite activity of the elementary-school students who tried Talking Fingers with me. Because this word processor isn’t integrated into the lesson sequence, you can use it whenever you feel children have mastered sufficient keyboard skills. The Echo speech synthesizer pronounces words either as the child types each one

on screen or in sequence as a whole story. Speech quality is robotic; creating a long vowel sound means pressing the open-apple key together with the vowel key. Children can type upper- and lower-case letters in a large or small font. *Discovery TextWriter* was a big hit with my students — kids love typing and having the computer read the text back.

When you’re ready to print your work, Talking Fingers reminds you to save your stories first, but you’ll need to keep a supply of preformatted disks handy. Talking Fingers seems to support only a single disk drive; I couldn’t use the program disk in one drive and access a student disk in a second drive.

Children use individual *Trophy* disks to save their progress in *Sound Games* and *Typing Challenges*. As children complete lessons, an Incredible Trophy Machine manufactures colorful visual rewards, including gold nuggets and toys. A teacher-management system lets you view or print student progress reports. The manual separates lesson plans by grade and includes reproducible handouts, visual aids, and stories and songs about the program’s characters.

### MAKING A COMMITMENT

The documentation suggests that children spend a half-hour each day honing their Talking Fingers skills, including a 10-minute warm-up followed by 20 minutes at the computer. Monitoring finger placement, vocalizing phonics, and ensuring that each student understands disk-handling techniques are all critical to the success of the program. Lack of screen prompts means that teachers must make sure each student understands what to do next.

A classroom teacher must be highly motivated to use this program. A lab is probably the best setting. If you’re a special-needs teacher or speech therapist working with small groups of children, Talking Fingers can work wonders. But a teacher who has access to perhaps one or two computers in a room with 25 students would find it impossible to devote class time to Talking Fingers without the assistance of devoted, well-trained parent volunteers. □

Midge Frazel  
Bridgewater, MA



# THE APPLE II REPORT

- **MUST BUY!**
- **FORGET IT**
- **WORTH A SECOND LOOK**

## ● COLLEGE EXPLORER 1993

**The College Board**  
**45 Columbus Ave.**  
**New York, NY 10023-6992**  
**(212) 713-8149**

- updated college-search software
- 1992-93 edition
- 128K Apple II or 64K Apple IIe with extended 80-column card
- \$125

With nearly 3000 two-year and four-year American colleges to choose from, how do you know which one is right for you? The College Explorer database contains information on 2800 accredited two- and four-year institutions. You input the selection criteria you think are important (location, major, size, sports, advanced placement, and so on); the software then generates three lists of candidates. You can narrow the search by figuring in additional profile requirements. The program lets you print college descriptions and profiles, plus selection lists. Information is updated annually. If you're college bound and you want help making the right choices, College Explorer will point you in the right direction.

## ● HISTORY MAKERS

**MECC**  
**6160 Summit Drive North**  
**Minneapolis, MN 55430-4003**  
**(800) 685-6322, (612) 569-1500**

- new U.S. history education program
- 128K Apple II
- color monitor recommended
- \$59

Historians have long ignored significant contributions by this country's non-white ethnic populations. MECC's History Makers provides a more-balanced approach to our cultural heritage. It uses a quiz-game format to teach students about the important achievements of 200 African, Hispanic, Asian, and Native American men and women. The object of the game is to identify four mystery people. Challengers ask questions, then analyze the computer's responses to name the famous personage. They earn points for each correct answer. An on-line database offers research assistance. This engaging software adds a new dimension to conventional textbook instruction.

## ● IT'S ABOUT TIME

**Troll Associates**  
**100 Corporate Drive**  
**Mahwah, NJ 07430**  
**(800) 526-5289, (201) 529-4000**

- new early-skills time/calendar program
- 48K Apple II
- \$39.95

If you want kids to be familiar with both analog and digital timepieces, try It's About Time. This program features three separate activities. The first two (*Once Upon a Time* and *You're on Time*) use colorful animation and sound effects to teach children in kindergarten through grade 2 the difference between hours and minutes, a.m. and p.m., plus analog and digital time. The third activity, *Calendar Fun*, lets you create and print simple monthly calendars marked with holidays and special dates. Because this interactive program contains no games, though, kids will tire quickly of disk activities.

## ● MAKE-A-FACE: FUN WITH BASIC SHAPES

**Troll Associates**  
**100 Corporate Drive**  
**Mahwah, NJ 07430**  
**(800) 526-5289, (201) 529-4000**

- new shapes-based creativity package
- 48K Apple II
- \$39.95

In the tradition of Mr. and Mrs. Potato Head (Random House) and Spinnaker's FaceMaker, Troll's Make-a-Face encourages kids aged 3 to 6 to design weird-looking faces for optional coloring off line. Children begin by scrolling through a list of backgrounds to find the perfect facial form for their drawing; choices include a variety of leaves, fruits, and vegetables. Next, they add geometric shapes. When the design is finished, they can choose a color or pattern to highlight the background and print their completed pictures. Make-A-Face is a simple but effective drawing program designed to give children practice with basic figures. It works with keyboard, joystick, or mouse.

## ● ON THE STREET WHERE YOU LIVE

**Toucan/Queue**  
**338 Commerce Drive**  
**Fairfield, CT 06430**  
**(800) 232-2224, (203) 335-0906**

- new writing and creativity package
- 128K Apple II
- \$49.95

With this new desktop publisher, kids write, illustrate, and publish "banner"-sized books up to 99 panels (90 feet) long. Completed designs print horizontally in three different sizes: "miniature" for comic-book pages, "standard" for panels measuring 8.5-by-11 inches, and "large" for double-sized sheets. Each story may contain as many as three backgrounds. Kids can lay out every panel with text or text mixed with graphics, chosen from the software's clip-art library and positioned anywhere on screen. Images consist of a variety of people, animals, vehicles, and props. Backgrounds typify several neighborhood scenes (a park, a carnival, downtown, a playground, and so on). A printed *Art-at-a-Glance* guide conveniently displays thumbnail representations of all available backgrounds, clip art, and fonts. This innovative program encourages creativity while making writing fun.

## ● SKILLS BANK II

**Skills Bank Corp.**  
**15 Governor's Court**  
**Baltimore, MD 21244**  
**(800) 451-5726**

- new interactive math- and language-skills builder
- 128K Apple IIe
- requires 80-column card
- Macintosh version available
- \$375 first subject
- \$250/subsequent subject (up to four)
- \$1245 five subjects

Skills Bank II consists of several curriculum-based activities organized by subject (math, reading, and writing, for example) and designed to reinforce basic skills. The full package contains 286 lessons, 49 quizzes, and 55 tests on 77 disks. Each lesson provides a general review with examples and follow-up questions. Hints are available if needed. Teachers may assign specific lessons, quizzes, and diagnostic tests, or let students choose their own. Alternatively, the computer can test students and assign work based on results. Management options let teachers track performance, assign lessons, and generate seven types of documents (including student profile, class summary, parent letter, and administrator report). The comprehensive Skills Bank series lets students review rules and concepts in a wide range of subjects. It's suitable for upper elementary school or high-school remediation.

— Carol S. Holzberg, Ph.D.  
Contributing Editor



## MEMORY & EXPANSION

CV-Technologies  
**CV-RAM 4mb \$208 8mb \$260 8mb \$348**  
 100% DMA Compatible

**SEQUENTIAL SYSTEMS**  
 RAM IIC \$128  
 RAM 80 64K/80 COLUMNS \$24  
 4MB/80 APPLE IICS \$58  
 Meg 802 1mb/80 Apple IIC

### Memory Upgrades

The SIMMs  
 1Mb x 4 DRAM for RAMFast \$39  
 1Mb x 1 DRAM for GS-RAM Plus \$39  
 The ZIP memory for GS-RAM IIC \$45  
 256k x 4 DRAM for GS-RAM Ultra \$45  
 256k x 1 DRAM for Apple Card \$15

## ACCELERATORS

### ZIP TECHNOLOGIES

7MHz/8K cache .....\$137.00  
 8MHz/16K cache .....\$173.00  
 9MHz/32K cache .....\$228.00  
 ZIP 8000 8MHz for IIC \$135.00

### AE Applied Engineering

TransWarp GS w/32K .....\$289.00  
 TWGS 32k Upgrade.....\$85.00

### VITESSE

**Quickie Special .....\$199**

Get a **\$20 discount** off your next purchase from LRO with the purchase of the Quickie Special!

## AE APPLIED ENGINEERING

**AE Vulcan Gold 40.....\$589**  
**AE Vulcan Gold Upgrades \$ 47**

**AE 5.25" for LC or A2.....\$189**

**AMR 5.25" for LC or A2..\$119**

**AE SuperDrive .....\$218**

1.44/800K 3.5" Floppy Drive for A2 & Mac  
 -AMR and AE 5.25" drives are daisy chainable !-

### MODEMS

Zoom 2400bps External w/cable - \$99

Zoom 2400bps ReadyLink  
 Bundle w/cable - \$139

AE Datalink 2400 Internal Modem - \$129

AE Datalink 2400 Internal w/ReadyLink - \$149

## SEQUENTIAL SYSTEMS

**RAM GS (4 megs/GS) .....\$128**

100% DMA compatibility and includes complete diagnostic utilities

**Meg 80Z (1meg/80cols./IIC) .-\$ 58**

Includes RamDisk Software

### THE SMALL PRINT

No Credit Card Surcharge. Standard shipping charges for UPS Ground Priority Mail 3%, minimum \$5. No COD surcharge on orders over \$300, under \$300 add \$5. Call for additional restrictions. Illinois residents add 6.5% sales tax. No sales tax for out of state purchases. Returns of hardware for up to 30 days with an RMA#. Returns past 30 days, accepted without RMA#. Returns are at our discretion. Incomplete product returns are at our discretion. Product returns are at our discretion. This advertisement is © 1983 by LRO Computer, Sales and Fitzbin Consulting Group for purposes of copyright and legal ownership of intellectual property or content. All rights reserved. Void where prohibited. \*Continental USA only.

Orders over \$300 automatically upgraded to Airborne Express®

**30 DAY MONEY-BACK GUARANTEE**

### AE PC-TRANSPORTER

PC-T w/640k .....\$229

GS or IIC Installation Kit..\$31

TransDrive 5.25" .....\$189

Dual TransDrive 5.25" & 3.5" \$289

PC-T 101 key add-on .....\$89

IBM style keyboard . \$99

## HARD DRIVES/SCICARDS

Our NCS Pro SCSI Hard Disk drives have all of these great features:

- 2 year warranty
- High impact ABS case (not flimsy plastic material)
- Dual SCSI connectors for easy daisy-chaining
- Access indicator light
- Convenient power connector and on/off switch
- Easy terminal, SCSI ID selector
- External SCSI ID selector

We also include the latest system software for your Apple Iigs or Macintosh. If you order an NCS Pro for the Iigs you also get 30+ megs of shareware and utilities at your disposal. Mac users get 12+ megs of shareware and utilities. Works great for the Apple IIC, too.

And if you're still not satisfied, just return the drive by taking advantage of our no-hassle return policy. You'll receive a full refund (less shipping and handling) and services with a smile.



### NCS Pro Drives

085 ELS .....\$278

Q127 ELS .....\$338

Q170 ELS .....\$368

Q240 .....\$478

Q525 .....\$978

Q1050 .....\$1,599

### NCS Pro Removable Drives

NCS Pro R45mb. \$428 NCS Pro R90mb. \$558

All removable drives include one cartridge. Extra 44/68 carts are \$68/\$108

### Hard Disk Controllers

C.V. Technologies. The fastest Iigs SCSI card with expandable cache and upgradable SCSI drive support. NOW even better at.....

**RAMFast GS w/256K \$139 (w/cable - \$149 w/o)**

**RAMFast GS w/1MB \$189 (w/cable - \$199 w/o)**

**RAMFast ROM UPGRADE \$15 (REV. C OR D)**

**APPLE HIGH-SPEED SCSI CARD \$99 (w/cable - \$109 w/o)**

SCSI interface for the IIC or Iigs

## MULTI-MEDIA HARD DRIVE BUNDLES

### DRIVE BUNDLES

NCS Pro Multimedia Package include all of the following:

-C.V. Tech Ramfast GS w/256K

-Roger Wagner HyperStudio

-Sequential Ram GS w/4mb.

Plus your choice of Hard Drive:

-Pro 850 Bundle \$628.95

-Pro 1270 Bundle \$675.95

-Pro 1700 Bundle \$699.95

## SOFTWARE

### SEQUENTIAL SYSTEMS

**Switch-It! \$48.00**

The Mac has it, now your software does too. This is a Multifinder type environment which allows you to run several applications at once and switch between them in an instant. Compatible with practically all GS/OS programs. Requires GS/OS 6.0 and 4mb for optimum performance (2mb minimum).

**Receive \$10 discount when you purchase Switch-It! and a RAM GS.**

**DREAMWORLD \$58.00**

**DREAMGRAFX \$58.00**

**ECON TECHNOLOGIES**

Universe Master.....\$ 68.00

AutoArc.....\$ 24.00

*Roger Wagner Publishing*

HyperStudio.....\$ 97.00

**WestCode SOFTWARE**

Pointless.....\$ 46.00

InWords.....\$ 78.00

*Vitesse*

Salvation Supreme.....\$ 85.00

Harmonie (printer drivers).....\$ 32.00

**InTrec**

**ProTerm 3.1 NEW.....\$ 78.00**

**TimeWorks**

Publish It! v4.0.....\$ 48.00

**New Concepts**

PRISM GS.....\$38.00

**Seven Hills Software**

Shoobox.....\$ 34.00

Express.....\$ 24.00

Kangaroo.....\$ 28.00

Manager.....\$48.00

**Apple Computer, Inc.**

GS/OS System 6.0.....\$ 39.00

HyperCard GS.....\$ 69.00

**MISC**

**Heavy Duty Replacement**

**Power Supplies**

Iigs Power Supply.....\$ 69.00

Ile Power Supply.....\$ 59.00

SCHOOL, UNIVERSITY & GOVERNMENT P.O.S WELCOME!

# (800) ASK-4120

FAX ORDERS: (815) 338-4332

TECH SUPPORT: (815) 338-8746

INTERNATIONAL: (815) 338-8658

ILLINOIS RESIDENTS: (815) 338-8685

605 W JACKSON ST WOODSTOCK IL 60093



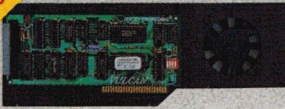
COMPUTER SALES



# Preferred Computing

**System 6.0!**

**Vulcan**



The Cadillac of Apple hard drives, given a "5-star" rating by *InCider*. Vulcan comes complete with a heavy-duty power supply, 16-bit ultra-fast controller, built-in CDA, pseudo-slotted, and support for GS/OS, ProDOS, DOS 3.3, Pascal 1.3 & CP/M.

— Up to 9 times faster at the same low price —

**Vulcan 40MB.....\$569**  
**Vulcan 100MB.....\$849**

**APPLE IIc ONLY**

Z-Ram Ultra 1 Memory Card with 512K .....\$99

**APPLE II+ ONLY**

16K Pocket Rocket Memory Card.....\$69  
 Lower Case ROM Chip.....\$19  
 ViewMaster 80 Column Card.....\$119

**APPLE IIc ONLY**

Extended 80 Column Card with 64K .....\$79  
 RamWorks III Memory Card with 0K.....\$119  
 RamWorks III Memory Card with 256K.....\$139  
 RamWorks III Memory Card with 512K.....\$169  
 RamWorks III Memory Card with 1MB.....\$229  
 RamWorks III Memory Card with 1.5MB.....\$319  
 512K Expander Piggyback Card with 512K.....\$139  
 Digital Prism RGB (digital RGB option).....\$99

**APPLE II+, IIc ONLY**

TransWarp Accelerator Card.....\$89  
 Heavy Duty Power Supply.....\$69  
 Phasor Sound Card.....\$69

**APPLE IIGS ONLY**

GS-Ram Memory Card with 0K.....\$39  
 GS-Ram Memory Card with 1MB.....\$89

**SPECIAL! -- Used Apple IIGS 1MB memory boards with 256K installed. Great condition. 30 day warranty \$39!**

GS-Ram III Memory Card with 0K.....\$89  
 GS-Ram III Memory Card with 1MB.....\$139  
 GS-Ram III Memory Card with 2MB.....\$189  
 GS-Ram III Memory Card with 3MB.....\$249

**Fax in Your School P.O.!**  
**(214) 247-8151**

|  |       |
|--|-------|
| GS-Ram III Memory Card with 4MB .....        | \$299 |
| Vulcan 40MB Hard Disk.....                   | \$569 |
| Vulcan 100MB Hard Disk.....                  | \$849 |
| Vulcan Gold Cache Upgrade .....              | \$49  |
| Conserver Drive Cable.....                   | \$19  |
| TransWarp GS Accelerator with 8K Cache.....  | \$199 |
| TransWarp GS Accelerator with 32K Cache..... | \$289 |
| TransWarp GS 32K Cache Upgrade.....          | \$79  |

**APPLE II+, IIc, IIGS**

**Storage Media**

|  |       |
|--|-------|
| AE 3.5" 800K Disk Drive.....                   | \$209 |
| AE 5.25" Disk Drive. with 20 Pin .....         | \$149 |
| AE 5.25" Drive Controller.....                 | \$59  |
| IIc/IIGS External Drive Cable(DB19).....       | \$19  |
| IIc Controller Card 20 Pin Adapter Cable ..... | \$19  |

**Memory**

|                                |       |
|--------------------------------|-------|
| RamFactor RamDrive 0K .....    | \$69  |
| RamFactor RamDrive 256K.....   | \$89  |
| RamFactor RamDrive 512K .....  | \$109 |
| RamFactor RamDrive 1MB .....   | \$139 |
| RamCharger Battery Backup..... | \$139 |

**Applied Engineering 5.25" Drive**



Æ's half-height, 5.25" disk drive works with Apple II's and IIc emulation card on Mac LC's. Comes with daisy-chain port and extra adapter cable.

**Æ 143K 5.25" Drive.....\$149**

|  |       |
|--|-------|
| RamCharger Gell Battery .....          | \$29  |
| Z-80 plus CP/M Card with Software..... | \$139 |

**Printer Interfaces, Clocks,**

|  |      |
|--|------|
| Parallel Pro Parallel Interface with Cable ..... | \$79 |
| Serial Pro (serial card & clock).....            | \$89 |
| TimeMaster H.O. Time Card .....                  | \$79 |

**Communications**

|                                     |       |
|-------------------------------------|-------|
| DataLink Internal 2400 bps.....     | \$149 |
| DataLink Express with V.42bis.....  | \$199 |
| DataLink Express Mini 8 cable ..... | \$19  |
| ReadyLink Software.....             | \$59  |

**Memory Chips**

|                                   |      |
|-----------------------------------|------|
| 256K DRAMs (set of 8, 120ns)..... | \$24 |
| Memory for the GS Ram III .....   | \$24 |
| Memory for the GS Ram Plus .....  | \$59 |
| Memory for the GS Ram Ultra ..... | \$59 |

**Software Upgrades**

|                                      |      |
|--------------------------------------|------|
| AppleWorks 3.0 Expander v 1.3.2..... | \$15 |
| Vulcan Utilities 1.4.7 .....         | \$15 |
| Time Patch ProDOS 8 v 1.9.....       | \$15 |
| PC Transporter 2.0.5 .....           | \$15 |

**MAC CORNER**

**Applied Engineering 3.5" Drive**



Finally, a low cost, fully compatible 3.5" 800K drive for both the Macintosh and the Apple II. Features high quality Sony drive, molded cable and daisy-chain port.

**Æ 800K 3.5" Drive.....\$209**

**Æ 3.5" Mac Plus Drive.....\$299**

**Mac Classic II, Performa 200**  
 FastMath Classic II w/68882-16MHz.....\$105

**Mac LC, LCII, Performa 400, Color Classic**


|                                  |       |
|----------------------------------|-------|
| TransWarp 4325 .....             | \$319 |
| TransWarp 4325f, 25Mhz FPU.....  | \$419 |
| TransWarp 4333v .....            | \$409 |
| TransWarp 4333vf, 33Mhz FPU..... | \$509 |
| TransWarp 4340 .....             | \$359 |
| TransWarp 4340, 40Mhz FPU.....   | \$489 |

**Mac LC III**  
 LC III Math Chip 25MHz FPU.....\$99  
 LC III Power Supply ..... \$92 |

**Mac PowerBook**

|   |       |
|---|-------|
| DataLink PB for PowerBook.....                | \$499 |
| Axcell (Cellular Phone Interface).....        | \$269 |
| Axcell (Motorola Cellular Interface).....     | \$359 |
| Æ PowerBook Battery Charger/Conditioner ..... | \$99  |
| Æ PowerBook Auto Adapter.....                 | \$65  |

**GS-Ram III**



Applied Engineering's GS-Ram III uses the new low cost, high performance 1MB x 4 chips to ensure low power consumption and less heat. It expands to 4MB and its compact size (4" x 2.5") leaves plenty of room for other peripherals.

|                             |              |
|-----------------------------|--------------|
| <b>GS-Ram III 1MB .....</b> | <b>\$139</b> |
| <b>GS-Ram III 2MB .....</b> | <b>\$189</b> |
| <b>GS-Ram III 3MB .....</b> | <b>\$249</b> |
| <b>GS-Ram III 4MB .....</b> | <b>\$299</b> |

**PC TRANSPORTER CORNER**

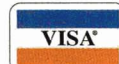


**Over 10,000 sold.**

PC Transporter enables your Apple II+, IIc, or IIGS computer to run any MS-DOS program made for the IBM PC, XT or IBM clone. Supports CGA graphics and extended 101 key IBM keyboard.

|                                   |              |
|-----------------------------------|--------------|
| <b>PC Transporter (768K).....</b> | <b>\$229</b> |
| IIGS Installation Kit .....       | \$29         |
| IIc/II+ Installation Kit .....    | \$29         |
| 360K 5.25" Add-on Drive .....     | \$129        |
| Digital RGB Adapter Cable.....    | \$19         |
| IIGS Mono Adapter Cable.....      | \$19         |

**1-800-327-7234**



To FAX Your Order, Call 1-214-247-8151  
 Tech Support/Customer Service Call 1-214-484-5464  
 Monday-Friday 1:00 to 5:00 PM CST

**Preferred Computing**

©1993 Preferred Computing. Visa, MasterCard and COD orders accepted. Order by phone, mail or FAX. Institutional and Government Purchase Orders welcome. Special and Sale items may be limited in quantity. Prices and specifications are subject to change without notice. Please verify product compatibility before ordering. Texas residents please add 8.25% sales tax.

Sales Hours: Monday-Friday 9:00 AM to 6:00 PM CST.  
 P.O. Box 815828 • Dallas, Texas 75381 • FAX (214) 247-8151

**Three Reasons to Buy Preferred**

- 15-Day Money Back Guarantee** on hardware purchases returned in new condition. Sorry, no refunds on software.
- In-Stock Same Day Shipping.** Items ordered before 3:00pm CST weekdays ship the same day. UPS and Federal Express Next Day Service available.
- We Carry Both Apple II and Macintosh Products.** Whatever your needs, we carry a full line of Applied Engineering hardware and software.



JUNE 1993

**INSIDE...**

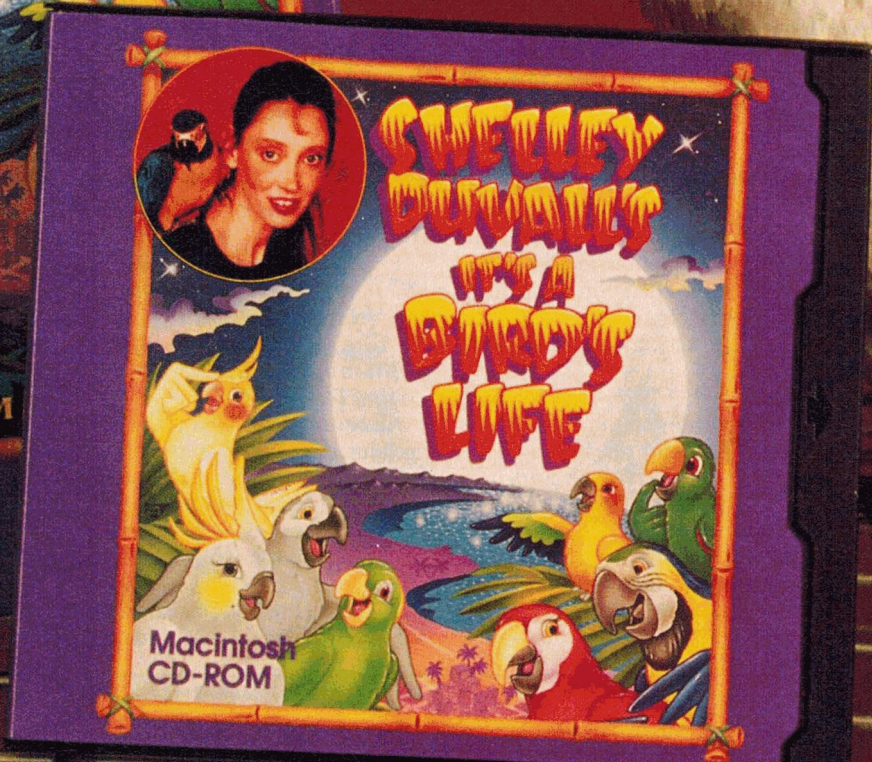
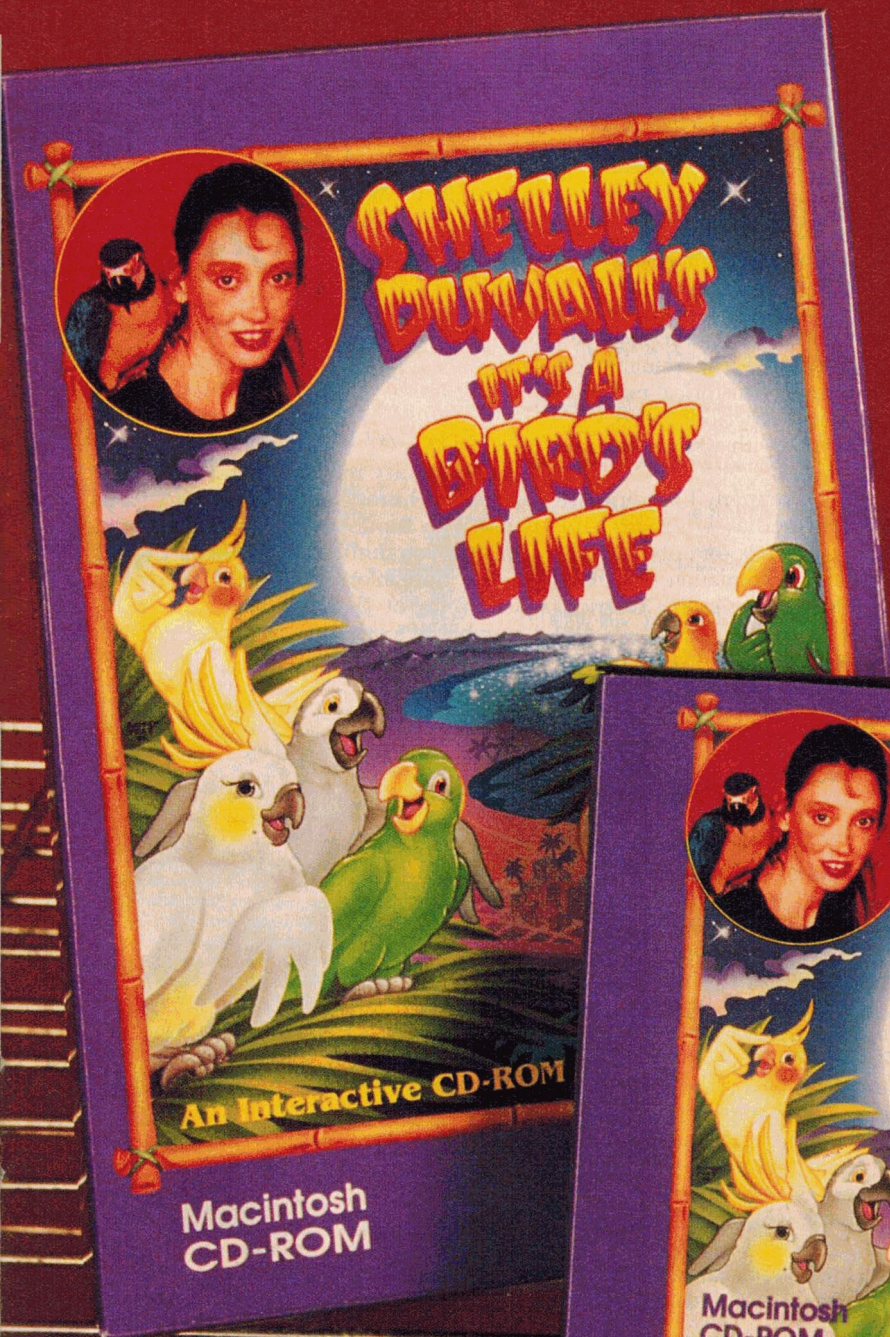
News.....28

New Products .....30

Reviews .....32

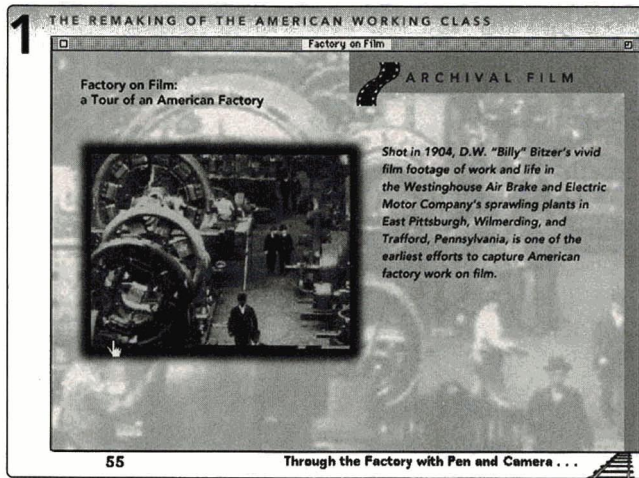
# A+MAC

Actress Shelley Duvall and friends offer Mac users a parrot's-eye view of avian lore and legend (Reviews, p. 32).





## HISTORY COMES ALIVE



■ Film from the early 20th century is just one part of the vast archive of historical material available on CD-ROM from Voyager.

away from the presidents and generals, and returning it to the working people, who really built America. The print version of *Who Built America?* (Pantheon Books, 1992) tells the story of 200 years in two volumes, using plenty of photographs, movies stills, and first-person narratives. The Voyager CD-ROM history of the Gilded Age, however, shows more than a book could tell:

■ You can listen to the popular music of the time — ragtime, folk songs, spirituals, campaign songs, and work songs, or hear the stirring words of Booker T. Washington.

● You can watch documentary film of events such as the sinking of the *Maine*, immigrants arriving at Ellis Island, and the digging of the Panama Canal, or see early and influential features such as *The Great Train Robbery*.

■ You can study photographs by Jacob Riis and Lewis Hine that showed America “how the other half lived,” or news photos, illustrations, advertisements, or cartoons from period newspapers.

■ You can read the primary documents — the newspaper editorials and the Congressional testimony, the personal letters and the court decisions — and make your own historical analysis.

As primary material for a course in American history or as enlightening reading, *Who Built America?* might change the way you think about history.

For more information, call The Voyager Company at (310) 451-1383, or circle number 325 on the Reader Service card.

— P.S.

Do you remember what happened in the United States between 1876 and 1913? In school you may have studied the Spanish-American War (1898) or the Oklahoma Land Rush (1898). Maybe your great-grandparents told stories about the Blizzard of '88, the Galveston Hurricane of 1900, the San Francisco Earthquake of 1906, or the Dayton (Ohio) Flood of 1913. If all you recall is a gilded age in which America built itself, **Who Built America?** (\$99.95) should prove instructive and entertaining.

As interesting as the historical events were some of the technological milestones. Edison Photography had been around for decades, but the Kodak camera invented

in 1888 made taking pictures simple for all. Edison invented the phonograph in 1878 and the motion picture in 1890. In other words, many of the pieces of what we call *multimedia* first saw the light of day between 1876 and 1913. As a result, a treasure chest of primary historical materials is available from that period. And now it's available to anyone with a Macintosh and a CD-ROM drive.

The Voyager Company has joined its talent for multimedia — mixing film, phonograph recordings, and photographs in an entertaining presentation — with the expertise of the scholars at the American Social History Project, 12 teachers and researchers dedicated to taking history

## AT THE MOVIES

The first QuickTime feature film on CD-ROM, given the technical limitations of Apple's video storage standard, was fated to be short and in black-and-white. But when the 90-minute movie is the Beatles' **A Hard Day's Night** (\$39.95), the limitations only make the product better.

Richard Lester's 1964 Beatles film inspired the creation of all music videos and many movies and television shows since. It's still entertaining, and now *A Hard Day's Night* has added interest as a historical document.

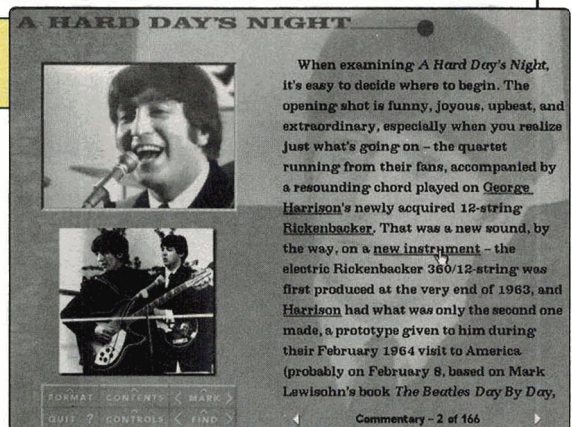
*A Hard Day's Night* is the first major theatrical release to be presented complete and uncut in Macintosh format. Voyager's *A Hard Day's Night* — the

CD-ROM — combines digitized audio, video, and text in innovative ways.

Every Beatles fan with a Mac should enjoy reading the script, the annotations, and an essay by film historian Bruce Eder explaining the importance of *A Hard Day's Night*.

All 90 minutes of the critically acclaimed film and its soundtrack, including 12 songs, are on the disc, as are the theatrical trailer, clips from Richard Lester's other movies, and a prologue that was added when *A Hard Day's Night* was rereleased in 1983.

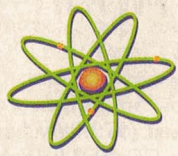
*A Hard Day's Night* is available from many video stores in addition to the



usual computer-software outlets, for a suggested retail price of \$39.95. For more information, call The Voyager Company at (310) 451-1383, or circle number 326 on the Reader Service card.

— P.S.





# HyperStudio

For the Apple IIGS, and now the MAC!



Currently used in tens of thousands of sites, HyperStudio is **classroom-proven**, and has won many awards, including those sponsored by Apple Computer, Inc., the American Library Association, and others.



**FUN FOR ALL AGES!**

**LEARNING HAS NEVER BEEN SO MUCH FUN!**

With HyperStudio, nothing gets in the way of your creativity. You can create a "giraff-abra", give him your own sound, even wings and make him fly!



**IT'S EASY TO USE!**



## Turn Serious Multimedia Into Child's Play!

HyperStudio® is the first award-winning program to show that creative multimedia can be as simple as a paint program! Express yourself with its full color built-in paint tools, text editing, animation – even speech recording & playback! HyperStudio is home and classroom-proven, and puts all the great aspects of multimedia in your own hands, including QuickTime™ and laserdisc control, all at an affordable price! HyperStudio is the easy new way to be creative – and have lots of fun too!

There are plenty of clip-art and sounds included, plus you can create your own or import them from other programs.

*You can make me talk!*



**COOL RESULTS!**



(Mac LC screen image)

"Multimedia isn't just a repackaged encyclopedia. It's a creative tool that makes possible what education is all about: Learning by doing."  
- Roger Wagner

**HOW TO GET IT!**

Discover for yourself just how much fun multimedia can be with HyperStudio. For more information, contact your favorite software supplier, or call us direct at (800) 421-6526.



Complete HyperStudio package available for only \$179.95



**Roger Wagner PUBLISHING, INC.**

1050 Pioneer Way, Suite P  
El Cajon, CA 92020  
619/442-0522  
FAX 619/442-0525

HyperStudio is a registered trademark of Roger Wagner Publishing, Inc. Apple IIGS, Macintosh and QuickTime are registered trademarks of Apple Computer, Inc.



## NEW HARDWARE



## PORTABLE CD PLAYER

Apple's **PowerCD CD Player** (price undetermined at press time) comes from Apple's Personal Interactive Electronics division — the folks who are bringing you the Newton "palmtop" computer — and, unlike Apple's other CD-ROM drives, this one's designed for consumers.

PowerCD is a three-in-one compact-disc player for Macintosh CD-ROMs, Kodak Photo CD discs (digitized versions of 35-millimeter photos or negatives) displayed on a television or Macintosh screen, and audio compact discs, as well. It's a lightweight unit and operates on batteries, making it ideal for travelers with PowerBooks. For more information, call Apple at (408) 996-1010 or circle number 327 on the Reader Service card.

## LOUD AND CLEAR

Everybody with a CD-ROM player knows the problem: If you attach external speakers to your player, the sounds coming from your Mac seem tinny by com-

parison. Plug the speakers into the Mac, and you can't hear the CD sound at all.

Apple's **AppleDesign Powered Speakers** provide an elegant solution: a unique dual-input mixer that blends the sounds coming from two different sources. Not only can you listen to CD audio and synthesized Mac sounds at the same time — a must for multimedia fans — but the speakers are magnetically shielded, as well, so that you can use them beside your computer monitor without creating an unintentional light show. In addition, the speakers are focused for the person listening at the keyboard, not everybody in the neighborhood.

The AppleDesign Powered Speakers are available wherever Macs and Performas are sold, for a suggested retail price of \$179. To hear more — in stereo — call Apple at (408) 996-1010, or circle number 328 on the Reader Service card.

## LINK UP

The price of brand-name modems is dropping fast: The Hayes **Accura 2400 Modem for Macintosh** offers free Smartcom telecommunications software, operates at 2400 bits per second (bps), and costs only \$89.

If you're looking for a fast fax modem, the new **Accura 144 + Fax 144** costs only \$339 and includes a 14,400-bps data modem and a fax modem, as well as Smartcom Fax software (send and receive). All modems in the Hayes Accura line are designed for personal use in the home and small office and meet all industry standards.

Accura modems are available in stores nationwide. To locate a dealer near you, contact Hayes at (404) 840-9200, or circle number 329 on the Reader Service card.



LARRY DUNN

## NEW SOFTWARE

## BERLIN WALL CD-ROM

**Seven Days in August** (\$79.98) is an interactive multimedia CD-ROM documentary that takes you back to the Berlin of 1961, when the Berlin Wall was built in a week that set the borders of the Cold War.

Seven Days in August makes its own history by publishing a roundtable discussion among major participants in the events from both sides — including McGeorge Bundy, the American National Security Advisor at that time, and Valentin Berezkov, former Soviet ambassador to Berlin.

Thousands of *Time* magazine photographs, interviews with contemporaries in Germany and the United States, and an archive of rare documents capture history as it was written. For more information, call Warner New Media at (818) 955-9999 or circle number 330 on the Reader Service card.

## QUICK ON THE DRAW

**Mighty Draw** (\$49.95) creates pie charts, column charts, bar charts, flowcharts, organizational charts, graphs, schematics, diagrams, fliers, newsletters, greeting cards, advertisements, logos, clip art, and more.

This object-oriented drawing program contains libraries of hundreds of figures and graphics you can copy, resize, move, or rotate — including symbols for animals, maps, trees, buildings, vehicles, people, electronics, computers, and even children's clip art. You can also import PICT files.

For more information, call Abracadata at (503) 342-3030 or circle number 331 on the Reader Service card.

## DRAW IT YOURSELF

**Expert Draw** (\$49.95) is a simple, affordable object-oriented drawing program. Its professional tools include

- If you add or remove items often from the *Apple* menu, it gets slow opening up your hard disk, the *System* folder, and the *Apple Menu Items* folder. Why not **create an alias of the Apple Menu Items folder**? Use *Make Alias* under the *File* menu on the desktop, and pop it into the original *Apple Menu Items* folder. Call it something like *Menu Control*, and you can have the *Apple Menu Items* folder open in a flash.



lines, ovals, and polygons, and commands such as move, stretch, scale, rotate, flip, nudge, group, and ungroup.

Expert Draw's libraries ease the production of drawings for students, designers, and home workers; you can create and store your own personal libraries to meet your needs.

This drawing program offers full 24-bit color support, and can import or export Paint, PICT, or QuickTime images. For more information, call Expert Software at (305) 567-9990 or circle number 332 on the Reader Service card.

## WONDERFUL CD-ROMS

Each compact disc in the National Geographic **Wonders of Learning CD-ROM Library** combines vivid photographs with sound effects and narration to captivate beginning readers.

Produced in conjunction with Discis Knowledge Research of Toronto, Wonders of Learning examines natural science and geography in 23 separate books on five CD-ROMs: **A World of Animals, Our Earth, The Human Body, A World of Plants, and Animals and How They Grow** (\$89.95 each, \$395 complete set). At the click of a mouse, you can explore the human body, hear a whale sing, watch a seed sprout, hear a butterfly munching a leaf, and much more. For more information, call the National Geographic Society at (800) 368-2728 or circle number 334 on the Reader Service card.



## CIVILIZATION SIMULATION

**Pax Imperia** (\$69.95) is different: It's a game of empire building that takes human nature into account. You begin with a single planet, expand your empire, and span the galaxies as your civilization grows. You control economy, technology, military affairs, diplomacy, and exploration. It's a strategic simulation that asks you to allocate resources all across your empire.

What sets Pax Imperia apart from similar world-building games such as Civilization and SimCity is that this one encourages human interaction — even if you play alone, you'll need a good understanding of human nature to succeed. Pax Imperia also encourages team play, at a single Mac or on a network. It should prove to have been worth the wait; for more information, call Changeling Software at (203) 623-1963 or circle number 333 on the Reader Service card.

## MUSIC TEACHER

David Sonnenschein, music professor and conductor, has created **The Anatomy of Music** (\$179.95), a set of seven compact discs of great music and Macintosh software presenting the major classical forms — minuet, rondo, sonata, concerto, and symphony. A music student can explore each form at the click of a mouse and see its structure on the Macintosh as it plays.

The Anatomy of Music makes visible the relationships among different forms, as well as the structure of individual pieces. See the music — and let your students see what all the fuss is about. For more information, call Tom Snyder Productions at (617) 926-6000 or circle number 336 on the Reader Service card.

## LOW-COST MULTIMEDIA

Create multimedia on a budget with **Shoe String** (\$95) — it works with HyperCard, ClarisWorks, or any other program that includes a graphics module, to display text, scrolling text, graphics, and movies in beautiful full color, complete with sound.

Shoe String was designed for the beginning user. You can run a slide show, interact with a slide show, or create one of your own — as a teaching aid, a business report, or a software demonstration.

Thanks to Shoe String, anybody can create multimedia. For more information, call ActaSoft at (818) 996-6731 or circle number 337 on the Reader Service card.

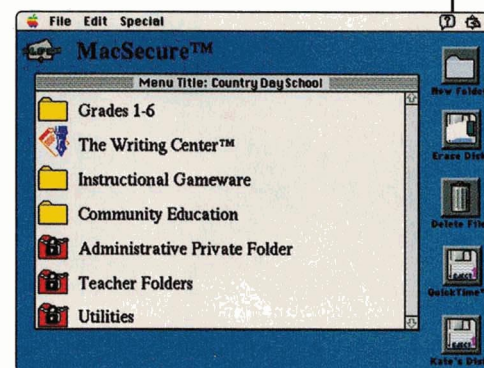
## PERFECT PAPERS

With **Perfect Copy**, students can hone their own language skills as they proof-read and correct 500 different and interesting articles.

Perfect Copy is designed to eliminate extensive teacher supervision: Students read text on the Mac's screen and request rules of punctuation, grammar, and style that might pertain to the article. The software offers clues to highlight material that may need editing.

Perfect Copy's articles appeal to a wide range of students. The teacher can assign material for youths, teens, or adults, and specify the difficulty of the rules the program will teach. It's suited to a whole-language framework, as students assimilate skills by actually using them.

A single Perfect Copy is priced at \$59.95; site licenses are available at discounts to schools, from Logicus Inc. (Nobleton, Ontario, Canada). For more information, call (416) 859-4287 or circle 338 on the Reader Service card.



## SAFE MACS

If you're worried about the safety of files and folders on your Mac, make your system **MacSecure** (\$99.95). This menu-management and desktop/hard-drive security software is perfect for teachers, students, and administrators who want to share applications and files with other users — but also want to protect their data.

A teacher or administrator simply creates a custom menu to help students or other users find the files they need in a direct and simple manner. MacSecure also sports a simple user interface with large buttons in full color and custom background colors. Password protection for any file is available. MacSecure also includes the virus-protection program Disinfectant.

For more information, call Learning Performance Corporation at (612) 854-2730 or circle number 335 on the Reader Service card.

■ If you want to **open a number of documents in one folder** with, say, your favorite word processor, you're out of luck — most standard *Open* commands open only a single file.

But if you're using **System 7**, it's a simple trick to drop into the Finder, locate the folder containing the files, select them all, and choose *Open* from the Finder's *File* menu — or press Command-O.





■ *It's a Bird's Life* has a good story, nice illustrations and songs, interesting activities, and lots of information, but it's s-l-o-w.

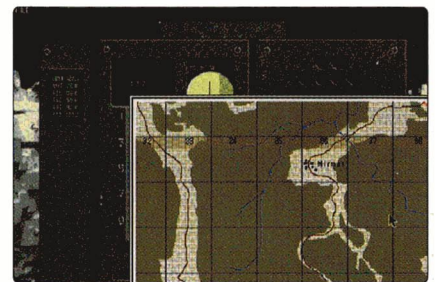
click on the screen to return to the story, which takes almost as long to reload.

The program's interface is also somewhat inconsistent. Sometimes, you click on a picture to start things; at other times, you don't click at all. This quirk, combined with slow response time, makes it hard for children know whether they're clicking properly or not.

It's a Bird's Life is packed with valuable information and educational activities, but its snail's-pace reaction time make it very frustrating to use. If you have a very fast CD-ROM drive, you'll no doubt give the program high marks; otherwise, you're likely to find it more trouble than it's worth.

Guy Wright  
Temple, NH

## M4: SHERMAN TANK SIMULATOR



★★

**Deadly Games**  
312 East 23rd St.  
New York, NY 10010  
(212) 475-2377

- color or gray-scale monitor
- hard drive
- 4MB RAM
- System 6.0.7 or later
- includes headphones
- \$54.95

You're on the front lines — in command of a brand-new M4 tank. You and your crew are ready to roll into the Ardennes to meet the enemy. They forgot to tell you a few things in boot camp, though. First, it's a dangerous assignment, because the M4 with its 70mm gun and minimal armor is no match for German tanks. Even with armor-piercing shells, a 70mm cannon can't penetrate the front of the Tiger, Panther, or Jagdpanzer, and a single hit can destroy the M4. Forget about driving the enemy all the way back to Berlin — your immediate goal is just to stay alive.

It's a Bird's Life is an interactive children's book on CD-ROM that youngsters can read by themselves or have Shelley Duvall's voice read aloud. The story centers around a flock of parrots who make the long, hard journey from Los Angeles to South America after their home is destroyed by fire.

Each of the book's 60 pages is colorfully illustrated; many of the pictures accompanying the text include objects and characters that children can click on

to see animated sequences, hear sounds and conversations, or uncover surprises. Children also can click on confusing words or phrases to hear simple definitions of those terms.

In addition, It's a Bird's Life contains a wealth of enjoyable activities, including clever sing-alongs, jigsaw puzzles, coloring, connect the dots, and a world map offering information on birds. When you click on a continent on the world map, the program lets you select among four or five types of parrots that live in that region. Clicking on a particular parrot brings up an illustration of the bird, as well as information about it.

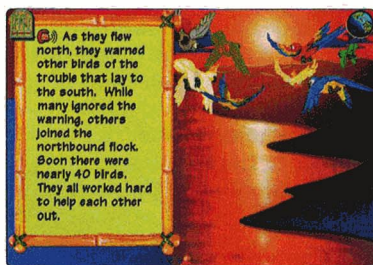
### SLOW FLYING

It's a Bird's Life contains an entertaining story, good illustrations, nice songs, interesting activities, and lots of information, but it also has a few serious drawbacks. At the top of the list is the program's painfully slow pace. Things proceed so slowly, in fact, that after a child has clicked on an item, he or she is likely to think that the click didn't register and so click again, because the program takes so long to activate a choice.

For example, if you want the program to define a word in the text, you must click on the highlighted word and wait — one, two, three, four; the screen fades to gray — one, two, three, four; and a new screen appears with the message "Searching for definition" — one, two, three, four. Then, that screen fades to gray — one, two, three, four; a screen with the definition appears — one, two, three, four; and finally Duvall reads the definition aloud. The child must then

★★★★

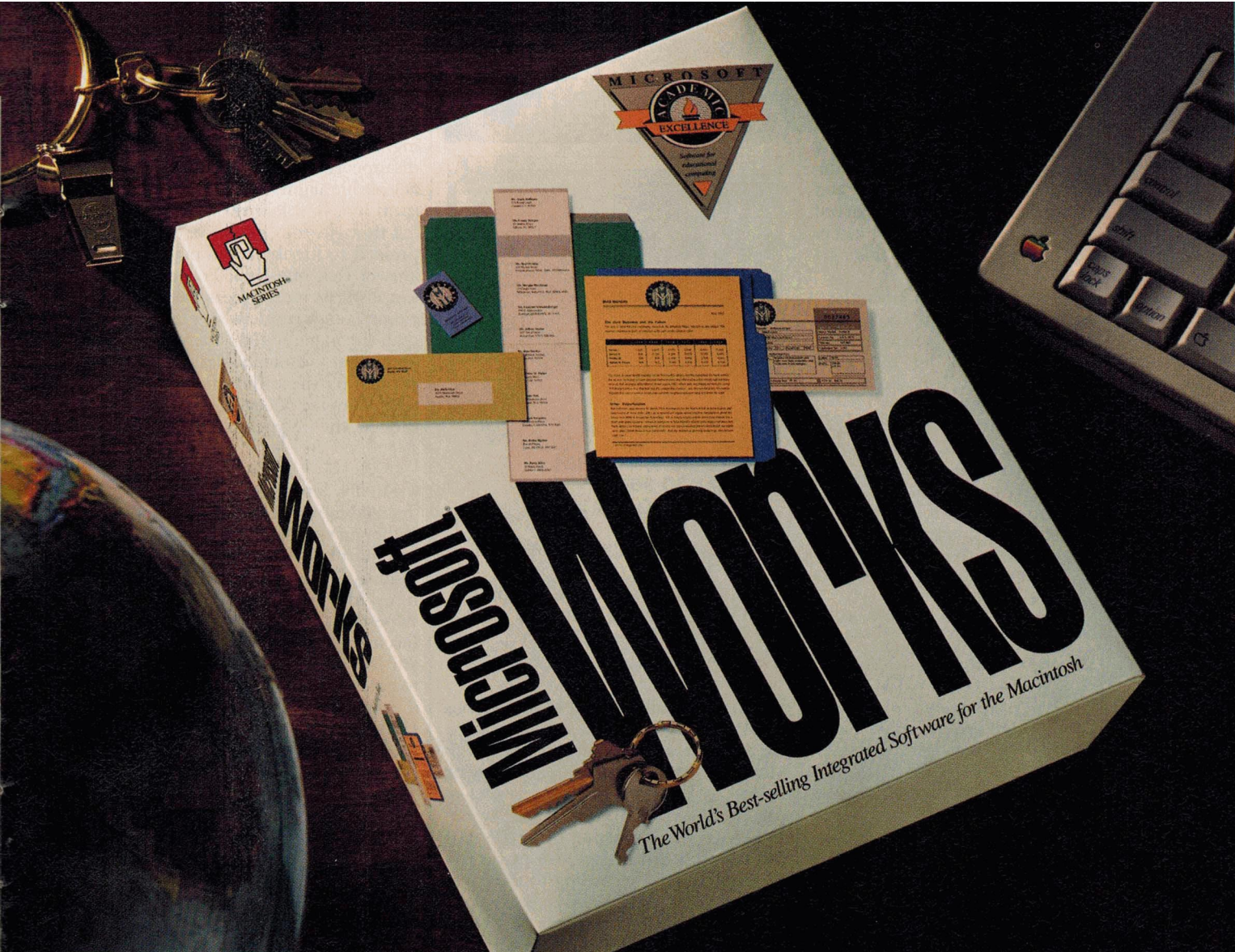
## SHELLEY DUVALL'S IT'S A BIRD'S LIFE



**Sanctuary Woods  
Multimedia Corp.**  
1006 Government Street  
Victoria, BC V8W 1X7, Canada  
(604) 380-7582

- color Mac
- System 6.07 or later
- 256-color monitor
- 4MB RAM
- CD-ROM drive
- \$59.95





## WHEN YOU LISTEN TO THE TEACHER, YOU MOVE TO THE HEAD OF THE CLASS.

We've really been doing our homework. Because teachers like you said your classrooms needed easier-to-use software tools for all kinds of jobs from A to Z.

That's why Microsoft® Works 3.0 for the Macintosh® now has fast, simple mailing labels and great templates designed specifically for educational tasks. We've also added a page-layout tool, optional foreign language dictionaries, footnotes, and much more.

With so many timesaving features, this comprehensive program might be the only new school supply you'll need all year long.

Whether you're updating records on the database, calculating grades on the spreadsheet, or having students write essays on the word processor, all the tools you need are in one integrated package.

And there's lots of online Help, training, and support materials to make this smart program simple for you and your students to learn. Even the price gets a gold star.

So find out why your help has made this the leading teacher's aid in its class, and in yours.

**Microsoft**  
Making it easier



Your tank's limitations become apparent very quickly; you soon learn that you can't wade in and slug it out with the enemy's tanks. If you try, you'll lose. Sure, you can get in a lucky shot every now and then, but the plan of attack is to proceed slowly, pick your battles, and when you're outgunned (which is most of the time) get the hell out of Dodge.

M4 comes on two disks and includes a set of headphones. Although the manual reads more like an army parts manifest than software documentation, read it carefully, because in this realistic simulation every detail is important.

Your radio is your only link to headquarters and the other services you need. You can use it to request artillery and tactical air strikes to soften up sectors before you ride in. It can also provide weather information and reconnaissance reports of enemy activity in your area (though poor radio reception may garble the words sometimes).

### MOVE OUT!

The main screen displays a digitized picture of the inside of a real M4 tank. You choose type of ammunition — armor-piercing shells, high-velocity armor-piercing shells, armor-piercing discarded sabot shells, high-explosive shells, or white phosphor shells (smoke screens). Available choices vary according to the model of M4 to which you're assigned.

If your crew members survive a few battles and become more experienced, they'll improve in their ability to help you identify enemies and aim your guns.

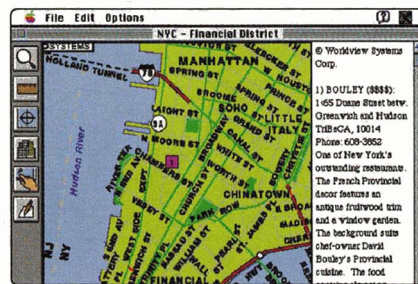
M4 makes good use of digitized audio to simulate the fog of battle — that confusion and uncertainty that make "military planning" an oxymoron. But missing or intermittent samples of sounds and graphics detract from the game. For the most part, the graphics images are good, but not outstanding. The program offers minimal animation: a turning turret; sequences that involve the tank moving out, firing, moving, or being hit; and enemy movement during battles.

Unfortunately you don't have many maneuvering options, and the battles are fairly static. It would be nice — and more realistic — if you could alter terrain features to tactical advantage and have a few more options during combat than advancing to "hulldown" (which makes you a smaller target but notifies the enemy of your presence) or retreating.

Once you learn the basics of survival, the game becomes repetitive, the battles more frustrating than exciting, and the foggy audio just plain annoying. M4 is a good idea, but doesn't take it nearly far enough to be enjoyable in the long run.

**Guy Wright**  
Temple, NH

## LOCAL EXPERT



★★  
**Strategic Mapping**  
3135 Kifer Road  
Santa Clara, CA 95051  
(408) 970-9600

- System 6.0.7 or later
- 500K RAM
- city maps 500K to 1MB each
- \$99
- 1 to 2 additional cities \$25 each
- 3 to 7 additional cities \$20 each
- 8 or more cities \$18 each

You've probably heard of the famous *Michelin Guides*, those little books that tell tourists everything they need to know about a particular country or region — famous attractions, places to eat, the lowdown on hotels, and so on. Local Expert claims to offer all that information (and more) on just a few floppies. In fact, according to the cover letter I got with the review materials, Local Expert lets travelers get off a plane in an unfamiliar city and know where to find everything they might need — from shoe stores to jazz joints.

### BAD DIRECTIONS

Once you've installed Local Expert — a major undertaking with three high-density disks — you encounter problems. Each copy of Local Expert includes an extensive collection of regional and world maps, but zooming in on the area you're interested in can be difficult.

If you look at the eastern seaboard of the U.S. map, for instance, you won't see Philadelphia or any other city in Pennsylvania listed. Considering what's been said lately about Americans' knowledge of geography, I think it's a mistake to assume that most people who want to find Philly will be savvy enough to click on the area showing Boston and New York City.

Even when you can find the right area, though, you sometimes run into problems when you close in on it. Often you see a display containing a dozen or so boxes that appear to be interlocking, and it's hard to click on exactly the right box.

I also found most of the tools a pain to use. I could draw a circle on a map easily,

making it bigger or smaller, and the map told me how much of a radius I was covering. But as soon as I let go of the circle, it disappeared. Why doesn't the program at least highlight the area, so that you can study it at your leisure?

I thought the "extensive" help menu praised so highly in the manual might answer that question. Forget it. It's as simplistic as most others I've seen, providing even fewer details on tool functions than the manual. (In all fairness, I must admit that the manual does a good job of explaining the different tools. When I tried following one of its how-to scenarios, though, the instructions didn't work.)

### GET LOST!

Finally, let me tell you about all that detailed information you can supposedly gather on specific cities. To get such info, you must buy an individual **CityMapSet** (\$18 to \$25 each, although one comes free with your initial purchase of Local Expert). Strategic Mapping sent me three sets to explore: New York, San Francisco, and Tokyo. I hit the first snag just trying to get into New York. When I clicked on that icon, I was presented with a map of the United States and Mexico. To get to the file, I had to select *Open MapSet* from the *File* menu and choose *New York*.

Once I finally "arrived" in each city, I uncovered dozens of problems with the listings. I've never been to Tokyo, but I find it hard to believe that the only "family" restaurants in town are Denny's and Shakey's. And I hardly think many local experts on Tokyo would choose to eat there. Is that where Japanese families go?

As for New York, one thing that really irks natives like myself is the tendency of outsiders to equate New York City with Manhattan, which is just one of the city's five boroughs. I really wasn't pleased, therefore, when I brought up the Brooklyn/Staten Island area of the city map and found that almost all of the restaurants listed were — you got it — in Manhattan.

C'mon, folks. Couldn't you at least have included Brooklyn's famous Nathan's Hot Dogs in the deli/take-out category? Actually, I did notice one Brooklyn establishment listed under American restaurants: Gage & Tollner, a widely known steak house. By that time, however, I was searching for Staten Island.

All in all, Local Expert deserves a big thumbs down: It's hard to use (assuming you can even run it) and the "detailed info" on specific cities is laughable and, indeed, often misleading. Personally, I'm going to stick with my *Michelin* — or maybe the AAA guide. □

**Wendy J. Meyeroff**  
New York, NY



# Charter Discount Offer

## MACCOMPUTING

### The Magazine that Helps You Get the Max from Your Mac

**M**acComputing brings you everything you need to get the most from your Macintosh. Whether you use an LC, Classic or Performa, learn how to take advantage of *all* your Mac's capabilities. Be up-to-date on the hottest software for small office and personal productivity, education and entertainment. Get affordable solutions to all of your computing needs.

#### MacComputing: What it's got

- Dozens of product reviews so you'll know what'll work best for you
- Critical product ratings scaled from 1 to 10
- Hot-off-the-press new product announcements
- Unbiased, reliable product comparisons to help you buy smart
- Hints and tips for beginners and experts
- Practical solutions to your technical needs
- Useful hands-on projects with step-by-step guidance
- Respected authors and Mac experts



#### MacComputing: What it's not

- Bewildering – it's written in clear, real-people language, not "computerese"
- Expensive – it's only \$19.95!
- Hard to get – just complete the mail-in coupon below or fax your order to 603-924-9384.



## Yes!

I really want  
MacComputing,  
The Personal  
Macintosh®  
Resource!

- 1 year (12 issues) of *MacComputing* for only \$19.95. **I save 58%!**
- 2 years (24 issues) of *MacComputing* for only \$32.95. **I save 65%!**
- Bill me later!

Name \_\_\_\_\_

Address \_\_\_\_\_

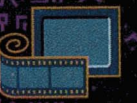
City/State/Zip \_\_\_\_\_

536A

Foreign orders must be prepaid in U.S. funds with additional postage. Add \$13.40 for Canada (includes GST); \$12.00 for Mexico; \$45.00 for all other countries per year. Basic annual subscription is \$27.95. Savings based on annual newsstand price of \$47.40. Allow 8-12 weeks for delivery.

MacComputing • PO Box 802 • Peterborough, NH 03458







# MACWORLD Expo/Boston

## AN EXPO FOR EDUCATORS

At The World Trade Center and Bayside Exposition Center; Tuesday, August 3 - Friday, August 6, 1993

### What Is MACWORLD Expo, And Why Is It Important To Educators? ●

MACWORLD Expo is the world's largest showcase for the Macintosh computer. As a comprehensive exhibition and conference, MACWORLD Expo demonstrates uses and applications for the Macintosh in a wide variety of settings. Recognizing the unique partnership between education and the Macintosh, MACWORLD Expo has assembled a complete package of education/Macintosh-related seminars and exhibits. *MACWORLD Expo promises you one-stop-shopping for information and ideas that are already transforming the field of education.*

### Sixteen Conference Sessions Devoted Exclusively To Education ●

One of the features of MACWORLD Expo is its program of conference seminars that take an in-depth look at specific Macintosh topics. Guided by a distinguished faculty comprised of those who truly lead the Macintosh industry, the seminars offer insights that are simply not available anywhere else. As an expanded series within the MACWORLD Expo/Boston Conference Program, sixteen seminars devoted exclusively to education offer an unprecedented opportunity for educators, administrators, and students to learn about new and classic applications of the Mac as a teaching tool. Session titles include:

#### FOR K-12 EDUCATORS:

- HyperCard
- The Macintosh Student Showcase
- Programming Support for Software Developers
- Math and the Mac
- BBSes and Networks to Facilitate Education
- Desktop Publishing
- Shareware and Public Domain Software

#### FOR UNIVERSITY AND GRADUATE SCHOOL EDUCATORS:

- Desktop Publishing on College Campuses
- How to Develop and Staff Computer Labs
- HyperCard in Higher Education
- Programming Support
- Shareware and Public Domain Software
- Cutting Edge Enabling Technologies in Basic Research
- Internet Support and Research

If you're not familiar with some of the above terms, don't worry; you will be after this conference. You can expect to come away from MACWORLD Expo/Boston smarter, more productive, and inspired!

### The Exhibition ●

The Conference seminars are just part of the story at MACWORLD Expo/Boston. There's also an amazing exhibition covering 300,000 square feet of space at Boston's World Trade Center and Bayside Exposition Center. Over 400 companies will have the latest hardware, software, peripherals and services on display. In addition to education, you'll see Macintosh applications in Networking, Spread-sheet analysis, Databases, Research, Word processing, Accounting, Law, CAD/CAM, Forecasting, Design, Publishing, Illustration, Animation, Music, Programming, Entertainment and Multimedia (to name but a few.)



### The MacResource Center ●

When visiting MACWORLD Expo/Boston, be sure to assign yourself to the MacResource Center. Sponsored by Apple Computer, Inc., A+ Publishing and MACWORLD Expo, the Center is a place for Macintosh-using educators to take a break from the show floor, discover new software solutions and review the *MACWORLD Expo Guide for Educators*. Visit the Center and you may be eligible to win free software, Apple gifts, or a new PowerBook computer.

### Don't Miss Out on Incredible Preregistration Savings ●

Preregistration savings are available NOW for MACWORLD Expo/Boston! You can save \$30 on all Conference Sessions and Exhibits (\$100 now vs. \$130 at the door), or \$10 on Exhibits-only admission (\$20 now vs. \$30 cash only at the door). To receive your discount registration information, complete and return the attached coupon today. *Then get ready to see why MACWORLD Expo is the Expo for Educators.* Preregistration deadline 6/29/93.

Send completed coupon to: MACWORLD Expo/Boston, Mitch Hall Associates, 260 Milton Street, Dedham, MA 02026;

or FAX us at 617-361-9074. Or, if you prefer, call us toll free at 800-945-3313

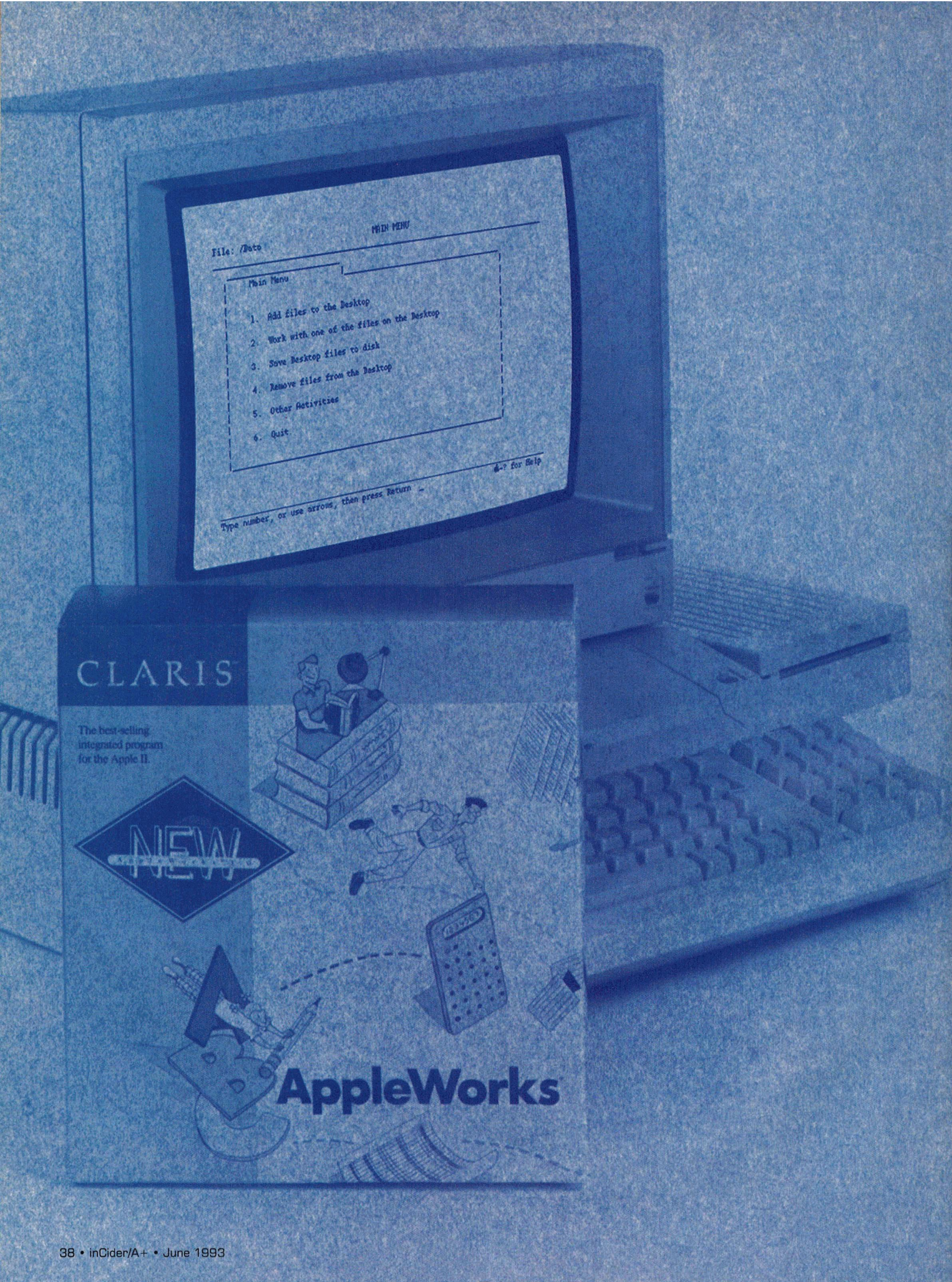
MACWORLD  
EXPOSITION  
BOSTON '93

Yes, send me discount preregistration information about attending MACWORLD Expo/Boston 1993

Yes, send me information about securing exhibit space in the MacResource Center.

Name \_\_\_\_\_  
Organization \_\_\_\_\_  
Address \_\_\_\_\_  
City/State/Zip Code \_\_\_\_\_  
Telephone \_\_\_\_\_ FAX \_\_\_\_\_





File: /Data

MAIN MENU

Main Menu

1. Add files to the Desktop
2. Work with one of the files on the Desktop
3. Save Desktop files to disk
4. Remove files from the Desktop
5. Other Activities
6. Quit

⌘-? for Help

Type number, or use arrows, then press Return

CLARIS

The best-selling integrated program for the Apple II.



AppleWorks



# II ESSENTIALS: APPLEWORKS

By Warren S. Williams, Cathleen Merritt, and Keith Bernhard

*In the third part of our ongoing series on Apple II basics, we take a look at the most-popular word-processing, database-management, and spreadsheet software available for your system — all in one convenient package.*

**A**ppleWorks — the integrated word-processing, spreadsheet, and database-management software now published by Claris Corporation — was a breakthrough when Apple Computer announced the program almost a decade ago. Until that time, you had to use separate packages to do your writing, maintain ledgers and budgets, and manage collections of information. Those programs were often difficult to use, and combining information from different applications was cumbersome.

AppleWorks was an early attempt at “integrated” programming — a package that made it easier to transfer information among different types of documents. AppleWorks works like three programs. When you load a text document file, it works like a word-processing program; like a database manager when you load a records file; like a spreadsheet when you work with numbers. You can even cut words and numbers from one kind of file and paste them into another kind (to a limited degree). AppleWorks’ three-in-one approach was so successful that nine years after its introduction, it

remains one of the best-selling programs for the Apple II line. It was the origin of the “cut and paste” ability built into every Macintosh program, and it has inspired imitators such as Microsoft Works on the IBM PC and Mac platforms.

## **NEW WAYS OF THINKING**

AppleWorks makes it easy to be productive, because it’s simple to learn and offers most of the features you need to prepare written documents, perform calculations, and store data. Furthermore, AppleWorks’ integration makes it possible to combine these different types of information into a single document. The power and flexibility of the program encourages you to think about managing all kinds of information differently.

For example, unlike typing, which commits your words to a fixed location on a single sheet of paper, word-processing programs create documents on an endless page. You can magically lift sections of text and move them to other places in the document; you can change your mind and revise your





Figure 1. AW word-processor file. Embedded commands control document's format.

document easily (Figure 1). When you finish writing, you can check your spelling and use AppleWorks' built-in commands to format the document for a finished look.

Many of your computing needs require calculations. For example, you might use your computer to tote up how much it

would cost to add a new room to your house or office — or you might wonder whether you should refinance your home. You can lay out these problems on a "spreadsheet" — a grid of empty cells you can fill with words, numbers, and formulas to perform the necessary calculations (Figure 2). Learning how to map out a question in grid form can change the way you think about solving problems.

Many computing tasks require you to store, sort, and find different pieces or types of information. For example, you might use your computer to keep track of names, addresses, and telephone numbers. AppleWorks' database module stores your information in separate "records," each of which contains information about one person, place, or thing. You can use AppleWorks' finding and sorting capabilities to select the records you want (Figure 3). For

## READER SERVICE INDEX

| Reader Service |                              | Page        |
|----------------|------------------------------|-------------|
| 103            | Alltech Electronics Co. Inc. | 13          |
| *              | Applied Engineering          | CV4         |
| 64             | Arminius Publications        | 46          |
| 87             | Bible Research Systems       | 46          |
| 45             | Caloke Industries, Inc.      | 46          |
| 47             | Christella Enterprises       | 46          |
| 220            | Educational Resources        | 11          |
| *              | GE Ridge Services            | 46          |
| 53             | Learn & Earn                 | 41          |
| 44             | LRO Computer Sales           | 25          |
| *              | M.P. Computer Micro Systems  | 46          |
| *              | MacComputing                 | 35          |
| 248            | Memory Plus Distribution     | 4           |
| *              | Microsoft                    | 33          |
| *              | Mitch Hall Associates        | 36,37       |
| 16             | OEM Corporation              | 46          |
| 59             | Perfect Solutions Software   | 46          |
| *              | Preferred Computing          | 26          |
| 136            | Quality Computers            | CV2,2,5,6,7 |
| 39             | Quinsept, Inc.               | 46          |
| 7              | Ramco Computer Supplies      | 47          |
| 33             | Remarkable Technologies      | 19          |
| 49             | Robert Merrill               | 47          |
| 32             | Roger Wagner Publishing Inc. | 29          |
| 48             | San Fresland Software        | 47          |
| 55             | Sharp Concept                | 43          |
| 29             | Shreve Systems               | 45          |
| 291            | Softdisk                     | 1           |
| 23             | Software of the Month Club   | 47          |
| 36             | Sun Remarketing              | 47          |
| 56             | TMS Peripherals, Inc.        | CV3         |

### WHEN YOU NEED HELP

One of the advantages of using a popular program like AppleWorks is the number of resources available to answer your questions and help you when you get stuck.

**Claris Corporation**, the developer of AppleWorks, provides technical support at no charge when you call (408) 727-9054. You pay long-distance phone rates, however. The telephone queue can be long, so be patient when you call.

The **National AppleWorks Users Group** (NAUG) is one of the nation's largest organizations of computer users. NAUG provides extensive support for the AppleWorks community by publishing *AppleWorks Forum*, a 32-page monthly journal filled with tips, templates, and suggestions to help you use the program more effectively. If you have a modem, you can use your telecommunications software to dial NAUG's electronic bulletin-board service, (615) 359-8238, where you can get answers to your questions and download files that work with AppleWorks. You don't have to be a NAUG member to dial into the BBS, although certain services are available only to members.

NAUG also offers a "**Members Helping Members**" program that can put you in touch with more than 150 fellow AppleWorks users who will gladly provide you with free telephone support.

Another national source of AppleWorks aid, if you use the popular TimeOut series of enhancements, is **TimeOut Central**, a bimonthly disk of tips, tricks, and news. It's edited by Randy Brandt of JEM Software, author of TimeOut UltraMacros.

But we suggest you start locally. If there's a local Apple II user group in your area, you're certain to find members willing to answer your questions and help you get started. To locate a group in your area, call Apple Computer's **User Group Connection** at (800) 538-9696 x500.

— W.W.



# A P P L E W O R K S

| File: INCOME   | REVIEW/ADD/CHANGE |             | Escape: New Year |
|----------------|-------------------|-------------|------------------|
| A              | B                 | C           | D                |
|                | This Year         | Last Year   | Difference       |
| 1) Income      |                   |             |                  |
| 2) Salary      | \$42,000.00       | \$37,000.00 | \$5,000.00       |
| 3) Dividends   | \$12,000.00       | \$9,000.00  | \$3,000.00       |
| 4) Interest    | \$975.00          | \$1,500.00  | (\$1,775.00)     |
| 5) Total Inc   | \$54,975.00       | \$47,500.00 | \$7,475.00       |
| 6) Expenses    |                   |             |                  |
| 7) Mortgage    | \$1,300.00        | \$1,200.00  | \$100.00         |
| 8) Utilities   | \$1,300.00        | \$1,200.00  | \$100.00         |
| 9) Insurance   | \$2,800.00        | \$2,900.00  | (\$200.00)       |
| 10) Total Exp  | \$5,300.00        | \$4,010.00  | \$1,290.00       |
| 11) Net Income | \$49,675.00       | \$43,490.00 | \$6,185.00       |
| 12) Total      | \$54,975.00       | \$47,500.00 | \$7,475.00       |

A1  
Type entry or use DA commands DA-? for Help

Figure 2. AppleWorks spreadsheet showing personal-budget calculations.

example, you can store information about your movie videotapes and then search for films starring Steve Martin. Or you might maintain a record of telephone calls to clients or a list of family birthdays and anniversaries, and search in seconds for just the record you want.

## FAMILY TREE

Claris Corporation, which markets AppleWorks, now offers two editions of the product. Version 3.0 of the 8-bit AppleWorks

program (popularly called "AppleWorks Classic") is the seventh iteration of the product originally created by Robert Lissner and marketed by Apple Computer in 1984.

You can run **AppleWorks 3.0** on any Apple IIe, IIc, IIc Plus, or Apple IIGS computer equipped with 128K or more of random-access memory (RAM) and at least one 5.25-inch disk drive. This product produces only black- and-white documents, so you don't need a color monitor. (AppleWorks shows up in black-and-white on a color screen.)

AppleWorks Classic doesn't use a mouse (although some third-party products add mouse capabilities to AppleWorks). But you'll appreciate having more memory in your computer (512K of RAM is a practical minimum to use with AppleWorks 3.0), and you should use either a 3.5-inch disk drive or a hard drive to eliminate disk swapping as you work.

Quality Computers' (originally Beagle Bros') **TimeOut** series of additions to AppleWorks Classic can expand AppleWorks' power in ways you've never dreamed of. For example, you can add a

File: MAILLIST REVIEW/ADD/CHANGE Escape: F2 for Home; entry

Selection: All records

Record 5 of 9 (9 selected)

---

First Name: Len Phone: (714) 255-1044  
 Last Name: Beraha: D  
 Street: 45 Brington Road  
 City: Dana State: NJ Zip: 14727

---

Type entry or use DA commands DA-? for Help

Figure 3. Name-and-address file data.

spelling checker to early versions of AppleWorks, or a grammar checker, or a thesaurus. You can automate frequently used commands and mundane tasks with **UltraMacros**. **SuperFonts** lets you use fancy typefaces; **Telecomm** lets you connect to on-line services without leaving AppleWorks. Other TimeOut programs handle everything from making outlines to printing. Clear Night Software also publishes a number of helpful AppleWorks enhancements, such as the utility **DoubleData**, which increases the database's capacity.

What's Faster Than a Speedy Car Wash? More Fun Than a PTA Bake Sale?  
 Able to Leap Huge Expenses With a Single Fund\*Raiser Activity?

## L\*EARN\*ING SYSTEM™

### 'Penny Arcade' School Fund\*Raiser Learning Tournament System

Multiple Level /Increasing Difficulty: Grades 4-6 • 7-8 • 9-12  
 Variable Speed • Arcade Hall of Fame (Up to 48 Students) • Individual & Team Cooperative Learning

AVAILABLE FOR: Apple II (5 1/4" Disk Only) • Macintosh (800 K Required)  
 Official Software of the LEARN & EARN "Penny Arcade" L\*EARN\*ATHON School Fund\*Raiser Activity

INTRODUCTORY OFFER: SYNONYMS: 1.1

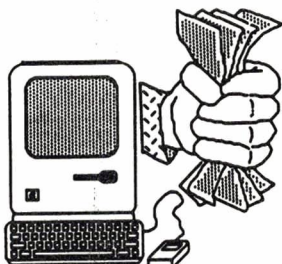
**\$6.95** (reg. \$10.95)

1500 WORD L\*EARN\*ING SKILL\*BUILDER

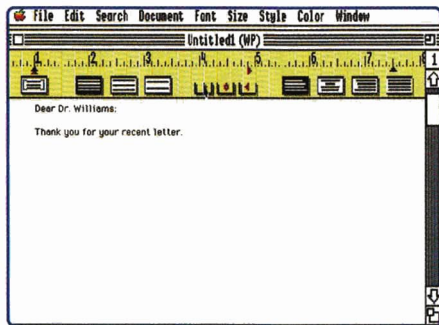
To Order Introductory Disk & School Fund\*Raiser Information:  
 Send \$ 6.95 (Plus \$1.00 Shipping & Handling) and Sales Tax If Applicable To:

**LEARN & EARN P.O. Box 1068 Capitola, CA 95010**

**"L\*EARN\*ING MAKES CENT\$"**







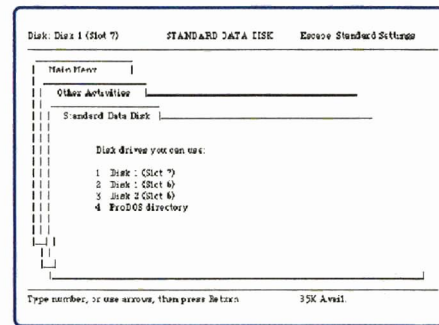
**Figure 4.** AWGS word-processor screen. Note “Mac-style” menus and graphical interface.

**AppleWorks GS** is a totally different, more-powerful, graphics-based program requiring an Apple IIGS computer equipped with at least one 3.5-inch disk drive and 1.25 megabytes of RAM. (For practical purposes, plan on using at least two 3.5-inch disk drives or a hard drive.) AppleWorks GS offers attractive color output if you have a color monitor. The

differences between the program’s Classic and GS versions become obvious when you compare the AppleWorks GS word processor screen in **Figure 4** with the AppleWorks Classic equivalent in **Figure 1**.

Aside from the similarities in their names and AppleWorks GS’ ability to read Classic files, the two products have little in common. AppleWorks Classic makes fewer demands on your computer, so the program requires less hardware and runs faster than AppleWorks GS. But AppleWorks GS offers an attractive Macintosh-style interface, gives you mouse control of your cursor, and offers additional features, including page layout, drawing, and telecommunications capabilities.

You can tell which version you own by launching the program. If your system starts with a screen that says *Apple II ProDOS*, you’re using AppleWorks Classic. The version number appears on the start-up screen below the box that says *AppleWorks*



**Figure 5.** Configuring AppleWorks for your system: Select a disk drive for data storage.

*Integrated Software.* AppleWorks GS displays its product name clearly on the startup screen. If it doesn’t say *AppleWorks GS 1.1*, you have an earlier version of the product.

## GETTING STARTED

If you have a single 5.25-inch or 3.5-inch disk drive and an ImageWriter printer, you can run AppleWorks right out of the box. Use a disk utility program to make copies of the AppleWorks disk(s) (never use your original program disks), put the copy in your computer, and turn it on.

If you have any other hardware, you’ll have to configure AppleWorks for your system. Let’s assume you’re using version 3.0. Start by configuring the program to recognize your disk drives and printer:

1. With the *Main Menu* on the screen, select option 5, *Other Activities*, and press Return.
2. From the *Other Activities* menu, choose option 6, *Select standard settings for AppleWorks*, and press Return.
3. From the *Standard Settings* menu, choose option 5, *Select standard location of data disk*, and press Return.
4. From the *Standard Data Disk* menu, select the drive you’ll use to store your data and press Return (**Figure 5**). (Advanced users will probably store their data in subdirectories.)
5. Now tell AppleWorks which printer you’ll use. With the *Standard Settings* menu still on screen, select option 6, *Specify information about your printer(s)*, and press Return (**Figure 6**).
6. From the *Printer Information* menu, select option 2, *Add a printer*, and press Return.

## INTEGRATED SOFTWARE CAN’T DO IT ALL

**A**ppleWorks is a powerful program, and its special strengths lay in its ease of use and breadth of capabilities. But be aware that integrated programs can’t offer the depth of features you may find in dedicated “stand-alone” products.

You may find that word-processing programs such as **BeagleWriter** (Quality Computers), **WordPerfect** (WordPerfect Corporation), or **Apple Writer** (freeware) include more formatting or ease-of-use options than AppleWorks; that stand-alone spreadsheet programs such as **SuperCalc** (now discontinued) can handle bigger computational tasks; and that dedicated database programs such as **DB Master** (freeware) offer more-complex organizational capabilities. But none offers integration, and, except for a couple of word processors, none is currently supported by its manufacturer.

Keep in mind also that although AppleWorks’ modules offer three of the most widely used productivity tools, your Apple II can perform many tasks not programmed into AppleWorks. For example, you can design professional-looking newsletters and fliers with a page-layout program such as Timeworks’ **Publish It! 4.0** for all Apple IIs or Seven Hills Software’s **Graphic-Writer III** for the GS. Both programs import AppleWorks 3.0 word-processing files as well. Greeting cards and signs are easy to publish with Broderbund’s **New Print Shop** or **Print Shop IIGS**.

We think you’ll want to start your “computing career” with AppleWorks. But you should also plan to use a variety of programs as you get comfortable with the power of your Apple II system.

— W.W.



## SHOULD YOU UPGRADE?

Whether or not you should upgrade to the latest version of AppleWorks depends on your needs and hardware. Version 1.0 of AppleWorks Classic contained many “bugs” that made it unreliable. If you use AppleWorks 1.0, you should upgrade.

AppleWorks 1.1 through 1.3 included fixes for bugs and minor enhancements to the product. Version 2.0 added “mail merge” capabilities, and version 2.1 offered faster spreadsheet operations. AppleWorks 3.0 includes a spelling dictionary and dozens of new features not offered in earlier versions of the program.

If you have a hard disk, a 3.5-inch disk drive, or 512K or more of RAM in your computer, you should probably get AppleWorks 3.0. Otherwise, you can work happily with an earlier version of AppleWorks, especially by customizing your copy with TimeOut and other add-ons. Upgrades to AppleWorks 3.0 from earlier versions of AppleWorks Classic cost \$79.

AppleWorks GS users with version 1.0 should upgrade to version 1.1. As with most first-release products, AppleWorks GS 1.0 contained serious bugs and operational problems. Early buyers weren't satisfied with the product; you'll find version 1.1 a vast improvement. Upgrades from earlier versions of AppleWorks GS cost \$29. AW Classic owners can upgrade to AppleWorks GS for \$99. — W.W.

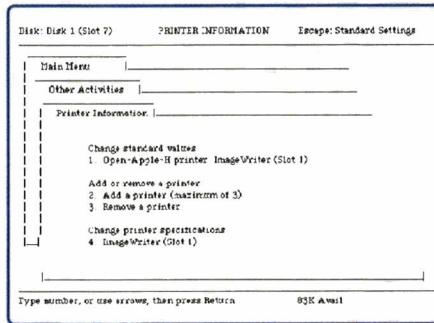


Figure 6. First step in configuring AppleWorks for your particular printer model.

Don't remove *ImageWriter* from the printer list. A bug in AppleWorks 3.0 makes printing unreliable if you remove that selection, even if you add it back later.

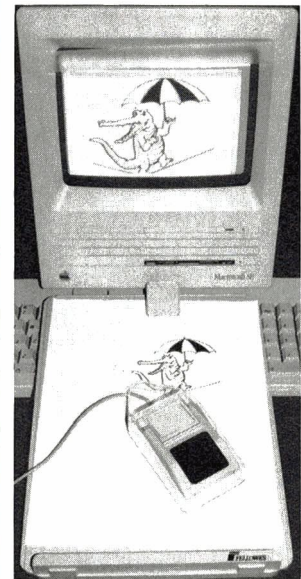
7. Use the up- and down-arrow keys to highlight the printer you're using (Figure 7), then press Return. If your printer isn't on the list, check the manual that came with the printer to see whether it can emulate one of the Epson models. If so, tell AppleWorks you have an Epson printer connected to your system. AppleWorks can handle almost any model, but installing a custom printer is beyond the scope of this article. If you're a beginner, you'll need some assistance. Check with your local Apple user group or with one of the **National AppleWorks Users Group's** 150 “Members Helping Members” volunteers to see whether someone can walk you through this process.

8. Type in a name for the printer — the name that will appear on your *Printer* menu whenever you print a document. Then press Return.

9. Tell AppleWorks which slot or port you used to connect the printer to your computer. If you don't know, select *Slot 1* and press Return. If your machine doesn't print, return to this screen and change the setting to *Slot 2*.

10. AppleWorks will display the *Add a Printer* menu with the default settings for your printer. Select option 2, *Accepts top-of-page commands*, and press Return. Then type a *Y* in response to the *Change the value?* question at the bottom of the screen. That lets you print correctly on index cards and short pieces of paper.

11. Press the escape key to return to the *Printer Information* menu. If you use a 5.25-



### “Sharp Tracer”

1. Trace Drawings – Logos – Artwork & Schematics.
2. Features 2 Power Lens with a bull's eye
3. Use with Paint – Draw & CAD–CAM programs.
4. Made of Optical Grade Acrylic. Same resin as prescription glasses.
5. A “Fun Challenge” that every one can enjoy!
6. Fits all Apple mice!

Only \$12.00

### Premium Life Cartridges

- |                        |        |
|------------------------|--------|
| 1. Apple Imagewriter   | \$9.00 |
| 2. Epson LQ 1000       | \$9.00 |
| 3. Epson LQ 2500       | \$9.00 |
| 4. Epson LQ 800        | \$9.00 |
| 5. Epson MX 100        | \$9.00 |
| 6. Epson MX 70         | \$9.00 |
| 7. IBM Proprinter 4201 | \$9.00 |
| 8. NEC 8023            | \$9.00 |
| 9. Panasonic 1080      | \$9.00 |
| 10. Panasonic 1124i    | \$9.00 |
| 11. Seikosha SP1000    | \$9.00 |
| 12. Star NX 1000       | \$9.00 |
| 13. Toshiba P1000      | \$9.00 |
| 14. OKI 182 (& others) | \$9.00 |
| 15. Citizen 120D       | \$9.00 |

Ask about other models (Check, Visa, M.C., M.O.)  
Add \$3.00 shipping in U.S.  
Buy 2 or more, shipping is free!  
All shipping outside U.S.—add \$7.00 for Air Mail Small Packet

ORDERS: (800) 795-2198

Or write:

Sharp Concept  
1653 Calmin Drive  
Fallbrook, CA 92028  
(dealer inquiries welcome)



## NAVIGATING AROUND APPLEWORKS

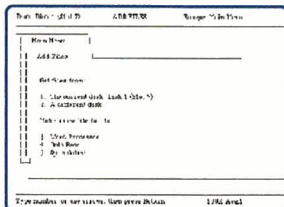


Figure A. Hierarchical files.

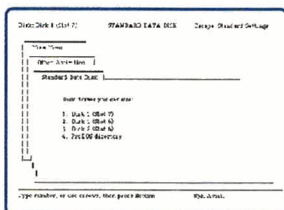


Figure B. Nested menus.



Figure C. Press OA-? for help.

One of the many features that have contributed to AppleWorks' success over the years is ease of use. The program operates within a hierarchical structure that simplifies navigation (Figure A); well-designed on-screen menus help you find your way around the program's operations (Figure B). Within a module, you use easy mnemonic key-stroke commands (for example, Open apple-P means *print*, Open apple-C means *copy*) and follow on-screen prompts to perform your work. And you can press Open apple-? at any time to use AppleWorks' on-line help system (Figure C).

— W.W.

inch copy of AppleWorks, the program will ask you to do some disk swapping. Follow the directions at the bottom of the screen.

12. You can configure AppleWorks so that pressing the Open apple-H (OA-H) key combination prints a copy of whatever is on your screen. But you must tell AppleWorks which printer to use when you press OA-H. From the *Printer Information* menu, select option 1, *Open apple-H printer*, and press Return.

13. Select the printer you want to use when you press OA-H, and press Return.

14. Press OA-Q and then the escape key to return to the AppleWorks *Main Menu*. Once again, AppleWorks might ask you to swap disks; just follow the on-screen prompts.

## READY TO GO

Those are the basics — you've configured your system and now it's time to explore. You can figure out a lot about the AppleWorks word processor on your own. Try different commands as you work — particularly Open apple-O command, which gives you access to most of the program's formatting options.

The AppleWorks spreadsheet and database modules are less intuitive, but with some study, you can master both of them. The AppleWorks documentation and

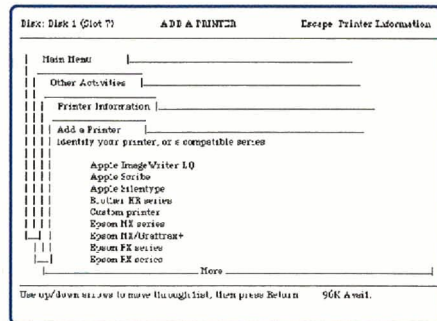


Figure 7. Select a printer type.

AppleWorks books from third-party sources can help. Two pamphlets are our favorites: *How to Get Started with the Spreadsheet Module* and *How to Get Started with the Data Base Module* (\$9.25 and \$6.50, respectively, from NAUG). Explore and enjoy. You're using one of the most-popular productivity programs in the history of computing. □

DR. WARREN WILLIAMS, PROFESSOR OF EDUCATIONAL TECHNOLOGY AT EASTERN MICHIGAN UNIVERSITY, IS PRESIDENT OF THE NATIONAL APPLEWORKS USERS GROUP (NAUG) AND AUTHOR OF MORE THAN 150 ARTICLES IN VARIOUS COMPUTER PUBLICATIONS. CATHELEEN MERRITT IS DIRECTOR OF NAUG AND EDITOR OF *APPLEWORKS FORUM*. DR. KEITH BERNHARD IS AN ASSOCIATE PROFESSOR OF VISUAL COMMUNICATIONS AND TECHNOLOGY EDUCATION AT BOWLING GREEN (OHIO) STATE UNIVERSITY.

## PRODUCT INFORMATION

**AppleWorks 3.0**, \$249  
**AppleWorks GS 1.1**, \$299  
 Claris Corp.  
 5201 Patrick Henry Drive  
 Santa Clara, CA 95052-8168  
 (408) 727-8227

**AppleWorks Forum**  
 National AppleWorks  
 Users Group  
 Box 87453  
 Canton, MI 48187  
 (313) 454-1115  
 \$31 a year

**DoubleData**  
 Clear Night Software  
 51 Bowen Road  
 Paris, CA 92571  
 \$40

**GraphicWriter III**  
 Seven Hills Software  
 2310 Oxford Road  
 Tallahassee, FL 32304-3930  
 (904) 575-0566  
 \$149.95

**The New Print Shop**, \$49.95  
**The Print Shop IIcs**, \$59.95  
 Brøderbund Software  
 500 Redwood Blvd.  
 P.O. Box 6121  
 Novato, CA 94948-6121  
 (415) 382-4400

**OmniPrint**  
 Kitchen Sink Software  
 903 Knebworth Court  
 Westerville, OH 43081  
 (800) 235-5502  
 \$49.95

**Publish It! 4.0**  
 Timeworks Inc.  
 625 Academy Drive  
 Northbrook, IL 60062  
 (708) 559-1300  
 \$149.95

**TimeOut Central**  
 Resource Central  
 P.O. Box 11250  
 Overland Park, KS 66207  
 (913) 469-6502  
 \$48/year bimonthly

**TimeOut DeskTools**, \$32.95  
**TimeOut DeskTools II**, \$32.95  
**TimeOut FileMaster**, \$32.95  
**TimeOut Grammar**, \$49.95  
**TimeOut Graph**, \$52.95  
**TimeOut MacroEase**, \$25.95  
**TimeOut Outliner**, \$42.95  
**TimeOut PowerPack**, \$32.95  
**TimeOut QuickSpell**, \$40.95  
**TimeOut ReportWriter**, \$48.95  
**TimeOut SideSpread**, \$32.95  
**TimeOut SpreadTools**, \$40.95  
**TimeOut SuperFonts**, \$42.95  
**TimeOut SuperForms**, \$42.95  
**TimeOut Telecomm**, \$42.95  
**TimeOut TextTools**, \$32.95  
**TimeOut Thesaurus**, \$32.95  
**TimeOut UltraMacros**, \$40.95  
 Quality Computers  
 20200 Nine Mile Road  
 P.O. Box 665  
 St. Clair Shores, MI 48080  
 (313) 774-7200



# Apple II / Macintosh

Your #1 Source for Apple® Parts & Systems!!



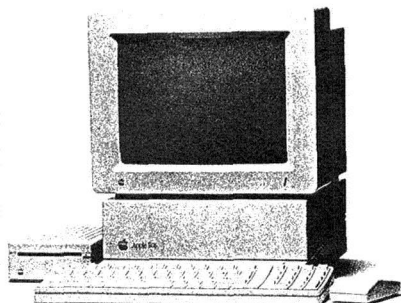
Genuine Apple 3.5 drive  
Only.....\$169.

## Apple II Parts

|                             |       |
|-----------------------------|-------|
| II+ keyboard.....           | \$29. |
| All+/Ile power supply.....  | 59.   |
| Allc keyboard.....          | 79.   |
| Allc platinum keyboard..... | 89.   |
| Allc logic board.....       | 129.  |
| Allc case.....              | 19.   |
| Allc logic board.....       | 179.  |
| Allc keyboard.....          | 69.   |
| Allc case.....              | 19.   |
| Allgs case.....             | 39.   |
| Allgs logic board.....      | 249.  |
| Allgs power supply.....     | 89.   |
| Allgs keyboard.....         | 99.   |

## Apple II Specials

|                                   |       |
|-----------------------------------|-------|
| LC/ Ile Emulation .....           | \$99. |
| Applied Eng. Datalink 1200 modem. | 49.   |
| Iigs RGB monitor (genuine Apple). | 229.  |
| Iigs 3.5 floppy.....              | 169.  |
| Iigs 5.25 unidisk.....            | 169.  |
| Apple personal modem 1200.....    | 49.   |
| 3.5 Unidisk(NEW).....             | 159.  |
| Ilc monochrome monitor.....       | 89.   |
| Imagewriter I (w/cable).....      | 179.  |
| Iigs 256k memory expansion board. | 49.   |
| Ile 64k/80 col board.....         | 45.   |



**Apple Iigs system** includes:  
1.25-meg of RAM, RGB monitor,  
Apple 3.5 drive, keyboard and mouse.  
Only.....\$749.



**Macintosh SE** includes:  
1-meg of RAM, 20-meg internal hard  
drive, keyboard and mouse.  
Only.....\$499.

## \*\*Worlds least expensive color Macintosh!!\*\*

(includes Mac LC, 2-meg RAM, 40-meg hard drive,  
color monitor, 800k drive, keyboard, and mouse)

**Mac LC 2/40.....\$849.**

### Exchange Specials

|                            |        |
|----------------------------|--------|
| Iigs logic.....            | \$199. |
| Ile logic.....             | 99.    |
| Ilc logic.....             | 99.    |
| Mac Plus logic.....        | 99.    |
| Mac SE logic.....          | 99.    |
| Mac Plus power supply..... | 75.    |
| Mac SE analog bd.....      | 75.    |
| Mac SE power supply.....   | 99.    |
| Mac LC logic bd.....       | 299.   |

### Mac CPU's

|                      |        |
|----------------------|--------|
| Mac Plus.....        | \$349. |
| Mac Classic 1/0..... | 589.   |
| Mac LC 2/0.....      | 649.   |
| Mac II 1/0.....      | 799.   |
| Mac IIcx 1/0.....    | 999.   |
| Mac Ilic 0/0.....    | 1599.  |
| Mac IIfx 0/0.....    | 1999.  |

### Apple II CPU's

|                       |      |
|-----------------------|------|
| All plus.....         | 99.  |
| Apple Ile w/128k..... | 199. |
| Apple Iic.....        | 249. |
| Apple Iic plus.....   | 299. |
| Apple Iigs.....       | 349. |



**School and Government P.O.'s accepted.**

**Shreve  
Systems**

1200 Marshall St Shreveport LA 71101  
FAX 318-424-9771 Tech. 318-424-7987

We buy Mac and Apple II equipment, large or small quantities.  
Please call our purchasing department. 318-424-9791

All equipment is used or demo unless  
otherwise stated.  
Equipment carries a 1-year warranty.  
Returns subject to a 15% restocking fee.

# 800-227-3971



# THE MARKETPLACE

## SUPER DEALS ON MACS & APPLES! BUY • SELL • TRADE • USED • NEW

|                                    |             |
|------------------------------------|-------------|
| Apple IIc/IIc+/IIe Systems from    | \$249.99    |
| Apple IIgs Color System            | \$874.99    |
| Apple Hi-Speed SCSI Cards          | \$104.00    |
| MAC+/Mac SE 1/20                   | \$425/\$649 |
| MAC II/Ixc/IIx/IIfx from           | \$1249      |
| MAC SE/30/Portable                 | \$1499/CALL |
| MAC Classic/LC                     | \$795/\$895 |
| MAC Classic II/LC II/IIc           | LOWEST      |
| MAC IIc/ 5/120 (NEW)               | \$2999      |
| MAC Powerbooks                     | CALL        |
| MAC Quadra 700/900/950             | LOWEST      |
| MAXTOR 120 Meg Hard drive          | \$329.99    |
| Imagewriter I/II from              | \$199.99    |
| Apple Talk Connectors (Mini-Din 8) | \$9.99      |
| All Peripherals (Apple & MAC)      | LOWEST      |
| Radius, RasterOps, AE, Outbound    | CALL        |

Also open evenings & weekends

### M.P.-COMPUTER MICRO SYSTEMS

655 W. Evelyn Avenue #2 • Mountain View, CA 94041  
(415) 960-1514 (VOICE) • (415) 968-0509 (FAX)

## Bible Software

Find any verse in the Bible, search for any word or phrase. Easily find the exact verse you need for your study. Build personal concordances to the Bible. We also offer a topical index and a Greek transliterator. For ProDos, Macintosh & MSDOS. Call for a FREE brochure.

**(800) 423-1228**

### Bible Research Systems

2013 Wells Branch Pkwy #304  
Austin, Texas 78728  
(512) 251-7541

## Apple II Public Domain

Request **FREE** catalog or send \$2 for demo disk and catalog (refundable). Categories include **Education, Utilities, Games, Business, Print Shop Graphics, Shareware, Eamon** and more. Buy as low as 80¢ per disk. A \$20 order gets 4 free disks of your choice and a \$30 order gets an even bigger surprise!

- In business since 1986
- Purchase Orders Welcome
- Next Day Shipping

### Caloke Industries (Dept. SK)

PO Box 18477  
Raytown, MO 64133



Circle 45 on Reader Service Card.

## Best Value In Apple II Series Public Domain & Shareware

Largest selection available anywhere, over 1200 BOOTable and MENU-Operated Program Disks, full of: **Entertainment • Business • Education • Utilities • Print Shop Graphics • AppleWorks • Eamone • Telecommunications • Variety • HAM Radio • novelty • GS. Specific • PRODOS. Specific...and More....!** Programs for Apple II+, IIc, IIc+, IIe, IIgs & Macs with IIe Simulator Card. Most are available in 5.25 and 3.5 Format. Low as \$1 A Disk. MC & VISA Accepted. Next-Day Shipping is available. Special offers for 'new' customers. Send \$2.00 for Christella's Descriptive Catalog and Demo Disk.....Be Pleasantly Surprised

### Christella Enterprise

P.O. Box 82205  
Rochester, Michigan 48308-2205



Circle 47 on Reader Service Card.

ONLY \$29.95  
NEW LOW PRICE!

## WIN LOTTERIES NOW!

LOTTO PICKER™ for Apple II is a must purchase if you are **SERIOUS** about winning larger jackpots and generating more frequent smaller winnings on a routine basis! **LOTTO PICKER** works by uncovering hidden biases in your lottery game and exploiting them in order to provide you with qualified plays to make. Your card will be loaded with numbers that have proven to be statistically significant for your lottery game. Works for all lotteries worldwide (including daily number games). \$29.95 (+\$4.55 s/h). NY residents please add applicable sales tax.

### SATISFACTION GUARANTEED!

Order 1-800-484-1062 s-code 0644



GE RIDGE SERVICES, INC.  
848 Rensselaer Ave.  
Dept. IC  
Staten Island, N.Y. 10309

FOR INFORMATION CALL 1-718-317-1961

!!!\$19!!!

## For all repairs.

Additional charge for parts and shipping. Maximum price quote guaranteed.

Apple II+, IIe, IIc parts repaired.

### ONE YEAR WARRANTY

Call for more information!

We buy dead Apple, Mac, and PCs

Hours: 12:00-5:00 PM ET  
6:30-10:00 PM ET  
MON-SAT

### Arminius Pubs. and Prods. Inc.

8519 Orchard Avenue  
Merchantville, NJ 08109  
(609) 662-3420

Circle 64 on Reader Service Card.



A quality source of your external SCSI hard disks, tape backups, and combo units. Apple, Mac, IBM compatible.

An exclusive manufacturer of all **FIRST CLASS PERIPHERAL SIDERS**. Also provide service, repair, and upgrade on existing models.

See our AD in the upcoming issues of this magazine.

1700 Forrest Way  
Carson City, NV 89706  
Sales: 800-982-3232  
Tech Spt: 702-687-2800

PLEASE MENTION THIS AD

Circle 16 on Reader Service Card.

## Perfect Solutions

|                    |            |            |            |
|--------------------|------------|------------|------------|
|                    | Computer   | w/Amber    | w/Color    |
| <b>LASER 128</b>   | <b>289</b> | <b>414</b> | <b>488</b> |
| <b>LASER 128EX</b> | <b>359</b> | <b>484</b> | <b>558</b> |

|  |   |
|--|---|
| Largest LASER Repair Center & Education Dealer | Joystick.....25   |
|  | No-slot Clock.....36  |
|  | Laser monitor stand...25                                    |
|  | Zoom 2400 Modem.....79                                      |
|  | Laser 128 Expansion Box.....55                              |
|  | Laser PC-4: IBM...199 Mac...219                             |
|  | PC4 to Apple II: "Bridge It" for AppleWorks 3.0....35       |
|  | Hard Drive w/card - Laser 128, IIe: 20 / 40 meg...289 / 339 |
|  | Mouse: for I/c w/card...89, for Laser 128, IIc, c+...70     |
|  | Safeskin Keyboard Protector for Laser 128.....20            |
|  | Laser 5.25 Drive...99 UDC...60 Laser 3.5 Drive...139        |
|  | Goldstar Amber Composite Monitor.....125                    |
|  | RGB 14" color + green + tilt & swivel for Laser.....210     |
|  | Magnavox RGB/Composite Color: IIe, IIc...288 IIgs...298     |
|  | Goldstar Super VGA 14" Color for Mac LC III.....299         |
|  | IIe Printer Card w/cable: Parallel...45 Super Serial...62   |
|  | ImageWriter I Compatible Printer...195 Wide carriage...325  |

LASER Experts **1-800-726-7086**

Memory School PO's, Charge & COD.  
RAM Chips: IIgs 1 meg...45 Laser & Apple 256K...18  
RAM Card: IIe...49 IIgs...49 IIc...69 Laser 128...29

Intern'l / Local Orders 12657 Coral Breeze Drive  
(407) 790-1070 W. Palm Bch, FL 33414

Circle 59 on Reader Service Card.

And your Earls and Viscounts. If you've got royal ancestors, we have the noble software that can help you trace them down. Family Roots and your Apple, IBM or Macintosh offer individual and group sheets, charts,

## Put up your dukes!

name indices, general search and text capabilities. Adapts to most disk drives, printers, and screens. Includes a comprehensive manual.

We have other genealogical software too.

Write or call today for more information and a free brochure.



### Quinsept, Inc.

P.O. Box 216  
Lexington, MA 02173  
Telephone: (617) 641-2930  
(800) 637-7668

American Express, Visa and MasterCard accepted.

\* Trademarks for Apple Computer Inc., International Business Machines.

Circle 39 on Reader Service Card.





| COLOR RIBBONS & PAPER                                  |        |         |         |
|--|--------|---------|---------|
| COLORS: BLACK, RED, BLUE, GREEN, BROWN, PURPLE, YELLOW |        |         |         |
| Ribbons Price/Each                                     | Black  | Color   | T-Shirt |
| Apple Image I & II                                     | \$2.75 | \$4.50  | \$6.50  |
| Apple Image II 4-CLR                                   |        | \$5.50  | \$10.00 |
| Citizen GSX140, 4-CLR                                  | \$4.00 | \$12.50 | \$15.00 |
| Epson MX-80  | \$3.25 | \$5.00  | \$6.75  |
| Okidata 182/192  | \$5.00 | \$7.50  |         |
| Panasonic 1180/1124                                    | \$5.00 | \$7.50  |         |
| Panasonic KXP 2123 4-CLR                               | \$6.50 | \$15.00 | \$20.00 |
| Star NX1000 4-CLR                                      | \$3.50 | \$6.25  | \$10.00 |
| Star NX1020 4-CLR                                      | \$6.00 | \$10.50 | \$15.00 |
| Star NX2420 4-CLR                                      | \$6.00 | \$12.00 | \$15.00 |

**COLOR PAPER:** 200 SHTS/ BRIGHT PK. \$10.90  
**PASTEL PK.** \$7.90 **BANNER PAPER** 45 FT. RL. \$8.95  
**CERTIFICATE PAPER:** \$9.95 PK.

**CUSTOM T-SHIRT, DESIGN YOUR OWN**



- HEAT TRANSFER RIBBONS
- TRANSFER PAPER FOR DOT MATRIX AND INK JET PRINTERS
- HEAT TRANSFER LASER TONER

Min. Orders \$25.00, Min. S&H \$6.00, Prices subject to change!

**RAMCO COMPUTER SUPPLIES**  
 P.O. Box 475, Manteno, IL 800-522-6922 or 815-468-8081

Circle 7 on Reader Service Card.

# FREE SOFTWARE

For Apple II, AppleGS, or \*Macintosh.  
 Choose from:  
 \*GAMES • KIDS  
 \*FONTS • \*CLIP ART  
 HOME AND BUSINESS

Receive 3/3.5" or 5/5.25" disks.  
 Pay a service charge of \$2.95 per collection. Credit cards only.

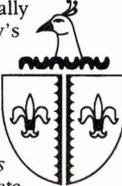
**Software Of The Month Club®**  
**619-931-8111 Ext 511**  
*Satisfaction Guaranteed Since 1985*

Circle 23 on Reader Service Card.

## FAMILY TREE

GENEALOGICAL RECREATION  
 FAST - FUN - EASY TO USE

Let **FAMILY TREE** automatically link together your family's history into an easy to operate (and fun to use) data file. Print a wide variety of charts, namelists, ahnentafels and group sheets to your printer or AppleWorks files. It even shows family relationships! Imports data from AppleWorks or LDS-PAF data files. For Apple enhanced Iie, Iic or IIGS. Truly a **BEST BUY** at this low, prepublication price of only \$49\*\*+2.50 S&H (CA add tax). With my 90 day satisfaction guarantee, you cannot lose! Specify 3.5 or 5.25 disk and send check or money order to the author:



**Robert M. Merrill**  
 6180 Via Real A-25  
 Carpinteria, CA 93013-2863

Circle 19 on Reader Service Card.

Great Prices on Used Macs

Big Savings CPUs Drives Monitor Modem Much More Call 1-800-821-3221

Super Savings Call for other computer prices Only \$395

# Free Catalog

## Used Apple Computers

**Apple //c, gs, Macs & More**

While all the others come and go, we keep doing what we do best. We've been refurbishing and selling used computers for ten years. Our quality control department assures you the best machine available for the money—or your money-back—guaranteed.

**Call Anytime**  
**1-800-821-3221**  
 PO Box 4059  
 Logan, UT 84323-4059  
 Fax: (801) 755-3311

**Sun Remarketing, Inc.**

Circle 36 on Reader Service Card.

## Don't miss Out...

...on the exciting new entertainment from **San Fresland Software** this summer!

Prepare yourself for the first chapter of a grand voyage, Skull Keep.

The town of Evenston has been under attack now for months by hordes of evil beings from the mysterious Skull Island. These villains have been violently robbing the townspeople of their wealth and lives for months.

You must sail to Skull Island to battle against numerous enemies in the midst of a life and death adventure. You have to find and destroy the headman of the invasions—before it's too late.

Lots of places are just waiting for you to unlock their mysteries. And action-packed sequels are following too!

**Send only \$15<sup>95</sup> for your copy today!**

San Fresland Software  
 P.O. Box 1049 • Talent, Oregon 97540  
 Send a check or money order. Always fast and free shipping. Needs 120K Apple Iie, c, or, or GS. Ages 11 & Up

Circle 48 on Reader Service Card.

## A+ Home Organizer

Don't be caught off guard when you need vital information fast!

Keep all your essential household information easily accessible with **A+ Home Organizer** for AppleWorks GS\* or ClarisWorks\*. Designed by *inCider/A+* columnist, Cynthia Field, **A+ Home Organizer** makes light work of maintaining detailed records of bank accounts, insurance policies, medical histories and more. These templates produce clear, concise documents in well-designed formats. Plus, they're so simple to use! Complete instructions are provided right on the disk.

**Great Value! Just \$29.95!**  
 Ten templates at a price that can't be beat!  
 That's less than \$3 per template.

Insurance Policies File • Address Labels  
 Home Inventory Organizer • Interest-Earning Accounts  
 Personal Balance Sheet • Vacation Planner  
 Mortgage Cost Worksheet • Friends & Family

MD residents: add 5% sales tax. Foreign air mail: add \$3.95. Foreign orders must be paid in U.S. funds drawn on a U.S. bank. AppleWorks is a registered trademark of Apple Computer, Inc. licensed to Claris Corp. Claris is a trademark of Claris Corp.

**Credit card orders call toll-free 1-800-582-7006**  
 (outside U.S. & Canada: 1-410-546-0261)

**A+ Special Products** PO Box 1641 Salisbury MD 21801  
 \*AppleWorks GS version #5025 \*Clarisworks version #5065 5368

*inCider/A+* is a publication of International Data Group, the world's largest publisher of computer-related information and the leading global provider of information services on information technology. International Data Group publishes over 185 computer publications in more than 60 countries. Thirty million people read one or more International Data Group publications each month. International Data Group's publications include: ARGENTINA's Computerworld Argentina, Infoworld Argentina; ASIA's Computerworld Hong Kong, Computerworld Southeast Asia, Computerworld Malaysia; AUSTRALIA's Computerworld Australia, Australian PC World, Australian Macworld; AUSTRIA's Computerwelt Oesterreich, PC Test; BRAZIL's DataNews, PC World, Mundo IBM, Mundo Unix, Publish; BULGARIA's Computerworld Bulgaria, Edworld, PC World Express; CANADA's InfoCanada, Network World Canada, Direct Access, Graduate Computerworld; CHILE's Computerworld, Informatica; COLOMBIA's Computerworld Colombia; CZECHOSLOVAKIA's Computerworld Czechoslovakia, PC World Czechoslovakia; DENMARK's CAD/CAM World, Communications World, Computerworld Uddannelses, PC World Produktguide, Windows World, Computerworld Danmark, PC World Danmark, Macworld Danmark, Computerworld Focus, Lotus World, Macintosh Produktkatalog, LAN World; ECUADOR's PC World; EGYPT's PC World Middle East; FINLAND's Mikro PC, Tietoviikko, Tietoverkko; FRANCE's Le Monde Informatique, Distributive, Golden Mac, Languages & Systems, InfoPC, Telecoms Reseaux, Le Guide du Monde Informatique; GERMANY's Computerwoche, Computerwoche Focus, Computerwoche Extra, Computerwoche Karriere, Edv Aspekte, Publish, Information Management, Macwelt, Netzwelt, PC Woche, PC Welt, Unit; HUNGARY's Computerworld SZT, PC World; INDIA's Computers & Communications; ISRAEL's Computerworld Israel, PC World Israel; ITALY's Computerworld Italia, Lotus Magazine, Macworld Italia, Networking Italia, PC World Italia; JAPAN's Computerworld Japan, Macworld Japan, SunWorld Japan; KENYA's East African Computer News; KOREA's Computerworld Korea, Macworld Korea, PC World Korea; MEXICO's Computerworld Mexico, PC Journal, Compu Edicion, Compu Manufactura, Computacion/Punto de Venta, Macworld, Mundo Unix, Windows; THE NETHERLANDS' LAN, Lotus World, Macworld, Computer! Totaal; NEW ZEALAND's Computerworld New Zealand, New Zealand PC World; NIGERIA's PC World Africa; NORWAY's Computerworld Norge, C World, PC World Norge, PC World Ekspress, IDG Direct Response, Lotus World Norge, PC World's Product Guide, Student Guiden, Publish World, Macworld Norge, Network, Unix World, Windowsworld; PERU's PC World; PEOPLE'S REPUBLIC OF CHINA's China Computerworld, PC World China, Electronics International; IDG HIGH TECH Newproductworld; PHILIPPINES' Computerworld, PC World; POLAND's Computerworld Poland, Komputer, PC World/ Komputer; ROMANIA's Infoclub; RUSSIA's Computerworld Moscow, Networks, PC World; SOUTH AFRICA's Computing S.A.; SPAIN's AmigaWorld, Comunicaciones World, Computerworld Espana, Macworld Espana, Network World, PC World Espana, PC World Autoedicion, Publish, SunWorld; SWEDEN's ComputerSweden, Corporate Computing, Mikrodatorn, Macworld, CAD/CAM World, Lotus World, Windows, PC World, Lokala Natverk/LAN, Attack, CAP, Datalingjoren, Data & Telekomunikation, Maxi Data, Mac&PC, Publishing & Design; SWITZERLAND's Computerworld Schweiz, Macworld Schweiz, PC & Workstation; TAIWAN's Computerworld Taiwan, Global Computer Express, PC World Taiwan; THAILAND's Thai Computerworld; TURKEY's Computerworld Monitor, PC World Turkiye, Macworld Turkiye; UNITED KINGDOM's Lotus, Macworld, SunWorld; UNITED STATES' AmigaWorld, Cable in the Classroom, CIO, Computerworld, DOS Resource Guide, Electronic News, Federal Computer Week, GamePro, *inCider/A+*, IDG Books, InfoWorld, Infoworld Direct, Macworld, Multimedia World, NeXTWorld, Network World, PCGames, PC World, PC Letter, Publish, SunWorld, SWATPro; VENEZUELA's Computerworld Venezuela, MicroComputerworld Venezuela; YUGOSLAVIA's Moj Mikro.

**Problems with Advertisers:** Send your current address and a description of the problem to *inCider/A+*, 80 Elm Street, Peterborough, NH 03458, attention Rita Rivard, Marketing Assistant/Customer Service Manager. If urgent, call (800) 441-4403, (603) 924-0100 in New Hampshire.

**Problems with Subscriptions:** Send your current or most recent address and a description of the problem to *inCider/A+* Subscription Department, P.O. Box 58618, Boulder, CO 80322-8618. Or call (800) 289-0619 between 6 a.m. and 7 p.m. Mountain time M-F. If you have a problem with payment, have mailing label and canceled check or credit-card statement in front of you. For change of address, send old address (exactly as it appears on mailing label) and new address to *inCider/A+*, P.O. Box 58618, Boulder, CO 80322-8618. Please give eight weeks' notice.

**Back Issues:** January 1990 to present available. Send \$4.50 plus \$1 postage per copy to *inCider/A+*, Back Issues, 80 Elm St., Peterborough, NH 03458. Phone orders (VISA, MasterCard, or American Express): Call (800) 343-0728, (603) 924-0100 in New Hampshire.





# LETTERS



## IIE CARD CONFIGURATION

I'VE USED ALL THREE OF THE Iie-based products John Klees mentions in his letter ("Iie Emulation," Letters, March 1993, p. 8) without difficulty from an Apple Iie Card in a Macintosh LC. Perhaps Mr. Klees should check the card's configuration in the Control Panel. MECC products, such as **Oregon Trail**, work best if you remove the clock and the mouse from the slots.

Also, when you first set up that alternative card configuration, return to Macintosh mode and change the name of the *Iie Prefs* file to something like *Startup MECC*. Thereafter, use that file to launch the special Apple Iie Card configuration you created for the MECC products.

Create other *Pref* files for your Iie programs that need special Apple Iie Card configurations. That way you won't need to keep changing the configuration from the Control Panel.

**Ellen H. Nesbit**  
Virginia Beach, VA

## LOOSE BUT NOT FORGOTTEN

I FOUND A CHIP LOOSE IN MY Apple IIGs. It's stamped with the numbers *TMM41464AZ-12* and *8729HCK*. It measures about 1 by one-quarter by one-eighth inch and has 20 connector pins. The GS seems to run okay without it, but every time something unusual happens with the machine, I wonder whether it's because of this chip. Any help will be appreciated.

**C.H. Fink**  
Dallas, TX

*Since most of the IIGs' chips on the motherboard are soldered into place, the chip you mention probably fell off one of your expansion cards. We couldn't find a reference for the chip, but we don't have a very extensive library of electronic parts. Can anyone help? We'll be glad to pass along your answers to Mr. Fink.*

— eds.

## KIDDESK BEATS AT EASE?

I WAS APPALLED BY YOUR comparative review of **KidDesk** versus **At Ease** (March 1993, Reviews, p. 34): On a "head-to-head" basis, the teachers in my school district are beginning to see that KidDesk wins hands down, not the other way around.

Your reviewer erred in saying **At Ease** has better protection. She should have known to make an alias for the **KidDesk** startup and put it on the System 7 Desktop, or make it the startup application for System 6.

**KidDesk** protects the Apple menu better than **At Ease** and gives teachers and parents control over the Finder, *Shut Down*, and applications. The review also failed to mention that **KidDesk** is a better buy (\$20 less than **At Ease**), and that it can print school and class calendars easily from event icons. **KidDesk** is

also easier to set up and use in a lab or network. And Edmark, **KidDesk's** developer, gives better support.

Contrary to your reviewer's observation, **KidDesk** does restrict children's access to desk accessories: A teacher or parent designates which accessories appear on the desktop, as well as which ones make sounds and can be printed.

And your reviewer made it sound as though **KidDesk** is hard to use. Not so — it's actually quite simple. I think you've done your readers a disservice.

**Linn Boswell**  
Computer Specialist  
Quail Run Elementary School  
Phoenix, AZ

## GS ENTHUSIASM

IN RESPONSE TO BONNIE PARKER ("Iie Enthusiasm," Letters, February 1993, p. 8): As long as you're spending money to enhance your Iie, why not consider the "ultimate" upgrade — to a IIGs? You can purchase a kit from **Shreve Systems** (1200 Marshall, Shreveport, LA 71101, 318-424-9777) for about \$150, and installation is no big deal if you're handy with a screwdriver. The result is a computer that gives you the best of both Apple II worlds.

**Stanley W. Marks**  
Rolling Fork, MS

*INCIDER/A+ WELCOMES READERS' COMMENTS. WE RESERVE THE RIGHT TO EDIT FOR CLARITY, STYLE, AND SPACE. ADDRESS YOUR CORRESPONDENCE TO LETTERS, INCIDER/A+, 80 ELM STREET, PETERBOROUGH, NH 03458.*

## CORRECTION

The **Voyager Company's** phone number is incorrect as listed in our April issue ("Quick and Dirty," *Status Report*, p. 64). The correct phone number is (310) 451-1383.



Summer's here & the **heat is on!** Check out the very cool prices on all our very cool Apple II products.

Prices shown good through July 1, '93!

# TMS

## Peripherals



### IIGS Products From Seven Hills Software

#### IIGS MultiFinder

|                    |             |
|--------------------|-------------|
| <b>The MANAGER</b> | <b>\$49</b> |
| GRAPHICWRITER III™ | \$89        |
| SHOEBOX™           | \$35        |
| EXPRESS™           | \$24        |
| KANGAROO™          | \$29        |
| TRANSPROG III™     | \$25        |
| DRIVE CLEANER™     | \$25        |

#### II PRODUCTIVE

340 TrueType™ Fonts. Includes HyperCard IIGS with Reference Stack, Shrinkit GS & FREE AOL Software & log time ONLY \$46!!!

**True Type Font Collection**  
**POINTLESS BUNDLE \$89**

#### Vitesse

|                         |      |
|-------------------------|------|
| SALVATION SUPREME       | \$99 |
| Deliverance Renaissance | \$42 |
| HARMONIE                | \$35 |

"Best Apple II Software '90 & '91"  
**ProTERM 3.0, by InSync \$77**

**DreamWorld Software**  
DreamGrafix \$58

**WestCode SOFTWARE**

|             |      |
|-------------|------|
| INWORDS     | \$79 |
| POINTLESS   | \$45 |
| HARDPRESSED | \$42 |

**TypeWest™ Font Collection**  
**Pointless Bundle \$69**

Includes 7 Pointless fonts + 40 additional TrueType™ fonts specifically for your IIGS.

#### CLOSEOUT

|                                 |       |
|---------------------------------|-------|
| <b>APPLIED ENGINEERING</b>      |       |
| DL Express V.42 & S-Fax         | \$269 |
| DL II Express V.42 Mac          | \$213 |
| DL LC V.42                      | \$219 |
| ReadyExpress Package            | \$233 |
| GS Ram III 1 Mb                 | \$100 |
| RamFactor 0 Mb                  | \$131 |
| Trans Drive Dual                | \$245 |
| <b>BEAGLE BROTHERS</b>          |       |
| Font Library / Volume 1         | \$27  |
| TimeOut SpreadTools             | \$32  |
| TimeOut TeleComm                | \$37  |
| TimeOut QuickSpell              | \$37  |
| TimeOut MacroEase               | \$21  |
| TimeOut Graph                   | \$47  |
| TimeOut SideSpread              | \$27  |
| TimeOut PowerPack               | \$27  |
| TimeOut DeskTools               | \$27  |
| Point-to-Point                  | \$53  |
| GS Desk Accessories             | \$32  |
| <b>ROGER WAGNER</b>             |       |
| Macromate                       | \$25  |
| <b>BRODERBUND</b>               |       |
| McGee at the Fun Fair Macintosh | \$21  |
| The Playroom Macintosh          | \$27  |
| Katie's Farm Macintosh          | \$21  |
| McGee Macintosh                 | \$21  |
| Kid Pix Macintosh               | \$32  |

### C.V. Technologies

"We make hard drives RamFAST!"

#### RamFAST SCSI DRIVE CONTROLLERS

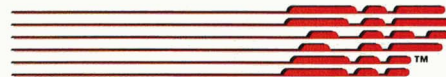
Twice as fast as the other SCSI card under GS/OS. Five to eight times faster under ProDOS! Supports ALL media and has tape backup software written into the ROM with FULL utility program. **LIFETIME WARRANTY!**

256K Rev. D V3.0 \$169  
1 Mb Rev. D V3.0 \$219  
V3.0 ROM Rev. C or D \$15

#### CV-RAM • IIGS MEMORY EXPANSION

CV-Ram comes with 4 Mbs installed, is user expandable to 8 Mbs & is fully DMA compatible to 8 Mbs! Adding memory is as easy as plugging in two chips and moving a jumper for memory intensive applications, like the GS/OS Finder. Need a Ramdisk? Under GS/OS 6.0 using or adding any frills such as fonts or desk accessories can eat up several megabytes in a hurry. Don't buy a non-expandable memory card. The CV-Ram is backed by a **1 Year Parts & Labor Warranty** and a **30 Day Unconditional Money Back Guarantee.**

4 Mb \$199 • 5 Mb \$235 • 6 Mb \$269 • 7 Mb \$299 • 8 Mb \$339



T E C H N O L O G Y

|                                  |              |
|----------------------------------|--------------|
| 7 MHz/8K Cache • DMA Compatible  | \$138/\$132* |
| 8 MHz/16K Cache • DMA Compatible | \$173/\$165* |
| 8 MHz/64K Cache • DMA Compatible | \$229/\$220* |
| 9 MHz/32K Cache • DMA Compatible | \$229/\$220* |
| 9 MHz/64K Cache • DMA Compatible | \$289/\$275* |

\*This price good with the purchase of any Closeout item.  
1 Year Full Warranty on ALL ZIP Technology Products

### SEQUENTIAL SYSTEMS

## RAM GS™

4 Mb \$119/\$112\*

## MEG 80™

1 Mb Aux. slot IIe memory card \$55

|   |             |
|---|-------------|
| bit MOUSE • Serial Apple II Interface             | \$48        |
| bit MOUSE with Mouse                              | \$65        |
| MegaBuff • 1 Mb ImageWriter II Buffer GS/Mac      | \$119       |
| Q-Buffer • 32K ImageWriter Buffer                 | \$38        |
| Q-Print • Apple II Printer Interface              | \$29        |
| Q-Print II • Apple II Graphic Printer Interface   | \$41        |
| Q-System GS+ • 7 RS422 Serial Input Ports         | \$419       |
| Q-System GS • 5 Input, 1 Output                   | \$349       |
| Q-System Parallel/Serial • Printer Sharing System | \$199/\$259 |
| Q-Talk LTO • LocalTalk Option Card                | \$69        |
| Ram 80 • Apple IIe 64K/80 Column Card             | \$15        |
| Ram //c • 1 Mb Apple //c Memory Expansion         | \$125       |
| SuperCOMM/SuperCOMM IIc                           | \$56/\$45   |

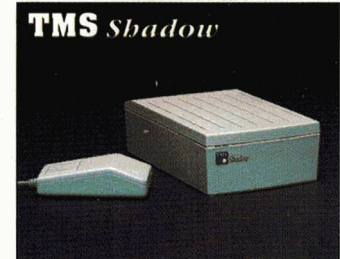
\*When bundled with Seven Hills' The Manager

**Bundle ProTerm 3.0 with any modem & get \$5 off!**

|                    |       |
|--------------------|-------|
| Fax Modem V.32 bis | \$349 |
| Fax Modem V.32     | \$299 |
| Fax Modem Plus     | \$159 |

### TMS Peripherals HARD DRIVES

QUANTUM AUTHORIZED



#### SHADOW/PRO STANDARD FEATURES:

Quantum, SyQuest or TEAC mechanisms  
System 7.1 & 25+ Mbs of PD shareware  
TMS DiskWriter Formatting Sware & Manual  
Shadow or Pro Series User's Guide  
25/50 system or 50/50 daisy-chain cable  
International auto-switching power supply  
Thermostatically controlled fan  
(Shadow does not require a fan!)  
External SCSI ID switch  
Dual courtesy AC jacks (Pro Series only)  
SCSI-Tee or pass-through cable (for daisy-chaining) or DB-25 floppy port power cable  
(Shadow only—NO EXTRA CHARGE!)  
EXCELLENT Customer & Tech Service!  
30 Day Money Back Guarantee  
One or Two Year Full Warranty  
ESP Warranty Program (optional)

|                                 |             |              |
|---------------------------------|-------------|--------------|
| <b>TMS SHADOW</b>               |             |              |
| Shadow 42 ELS                   |             | \$225        |
| Shadow 85 ELS                   |             | \$249        |
| Shadow 127 ELS                  |             | \$305        |
| Shadow 170 ELS                  |             | \$335        |
| Shadow 240 LPS                  |             | \$419        |
| Shadow 525                      |             | \$939        |
| Shadow 1 Gig                    |             | \$1275       |
| <b>Soft-Touch Carrying Case</b> |             | \$10.95      |
| <b>PRO DRIVES</b>               | <b>Ext.</b> | <b>*Int.</b> |
| Pro 42 ELS                      | \$225       | \$160        |
| Pro 85 ELS                      | \$249       | \$189        |
| Pro 127 ELS                     | \$305       | \$225        |
| Pro 170 ELS                     | \$335       | \$250        |
| Pro 240 LPS                     | \$419       | \$335        |
| Pro 525                         | \$939       | \$865        |
| Pro 1050                        | \$1275      | \$1205       |

\*Internal prices for Macs include complete bracket kit!

|                               |       |
|-------------------------------|-------|
| <b>TMS PRO REMOVABLES</b>     |       |
| TMS Pro R45 with 1 cartridge  | \$399 |
| TMS Pro R88c with 1 cartridge | \$539 |
| Extra cartridges R45 \$64     |       |
| Extra cartridges R88c Call    |       |

|                                |       |
|--------------------------------|-------|
| <b>TMS PRO TAPE BACKUP</b>     |       |
| TMS Pro T155 & 1 tape          | \$489 |
| Extra tapes \$19               |       |
| RETROSPECT, New Version!       |       |
| \$100 with tape drive purchase |       |

"TMS Peripherals... combination of better-than-average speed, design and construction quality, packaging, and support is a sum greater than its parts."  
—MacUSER April 1992

You have the products with the features and quality I want. I bought my other hard drive from you two years ago and was impressed with your service and support.  
—B. Bellina, Mishawaka IN

Circle 56 on Reader Service Card.

800-ASK-4TMS



Sales: 9 a.m. - 8 p.m. M-F; 10 a.m. - 4 p.m. Sat. (ET) Tech. Support & Customer Service 9 a.m. - 5 p.m. M-F (ET)

International 407.998.9928 • FAX: 407.998.9983 Compuserve: 75300,2231 • America On Line: TMS Periph

TMS Peripherals • 1120 Holland Dr., Ste. 16 • Boca Raton FL 33487



PAYMENT: Visa, Mastercard, Discover, Certified Checks. PO's and COD's accepted. TAX: Florida residents add 6% sales tax. PRICES: Subject to change and availability. SHIPPING: Minimum \$5-UPS Ground, Blue, Red & Federal Express Economy or Overnight. RETURNS: Products must be in original condition and require an RMA#. Seal must not be opened on software packages. Some items may be subject to a restocking fee—please inquire when ordering. TMS will not be held liable for errors in typing or photography. All Trademarks and Service Marks are the properties of their respective owners.



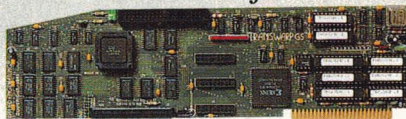
# Applied Engineering Inventory Price Busters

The first time AE has ever allowed you to buy direct for under dealer cost!



## TransWarp GS

The most popular  
accelerator for the IIGs.



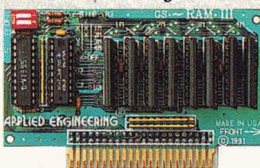
**inCider's  
Editors' Choice**

- More than doubles the speed of your Apple IIGs.
- No switches or jumpers to set.
- Fully Compatible with all standard software and hardware.
- 32K Cache Option increases TransWarp GS speed up to 20%.

Retail price for the TransWarp GS with 32K Cache ..... \$399

## GS Ram III

Low cost memory  
expansion card for the IIGs.



- Compatible with all standard IIGs hardware and software.
- Uses new 1MBx4 Chips and accepts 3MB as valid configuration.
- Low power design for cooler operation.
- Compact, efficient design leaves plenty of room for slot 7 cards.
- Fully DMA compatible.
- Super Hi-Res diagnostic software included.
- Includes AppleWorks 3.0 print buffer and disk save features.
- Made in the U.S.A.

Retail Price with 2MB of memory ..... \$299

## 5.25" Drive

143K floppy drive.



- 143K formatted, 35 tracks, 16 sectors.
- Fully compatible with the Iie Emulation Card for the Macintosh LC.
- Fully compatible with all Apple II models.
- Proven reliability.
- Super quiet.
- Available now!
- Full one-year warranty.

Retail price for 5.25" Drive ..... \$265

## PC Transporter

Enables Apple II computers to Run MS-DOS.



- Runs IBM PC, XT, or IBM clone software.
- Has 640K of memory.
- Turns Apple II devices into IBM devices.

COMPLETE PC TRANSPORTER PACKAGE INCLUDES:

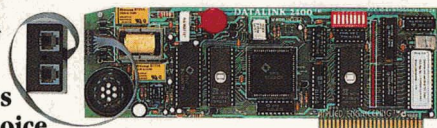
- PC Transporter with 640K memory.
- Your choice of either an Apple Iie or IIGs Installation Kit.
- 3.5" platinum drive.
- PCT Software version 2.0.5.

Retail price for PC Transporter, installation kit and drive ..... \$717



## DataLink 2400

Internal modem for  
Apple II+, Iie and IIGs.



**inCider's  
Editors' Choice**

- 300, 1200, 2400 bps Hayes compatible modem.
- Fits in any slot except three, no serial card necessary.
- Comes with communications software and cables.

Retail Price for the Datalink 2400 bps modem ..... \$219

Mention this ad and get Readylink free with purchase of DataLink



**APPLIED ENGINEERING®**  
Apple's Oldest and Largest Developer.  
Since 1979.

(214) 241-6060

FAX: (214) 484-1365



3210 Beltline  
Dallas, TX 75234



Call Applied Engineering Sales today and take advantage of these incredible prices!



**Call (214) 241-6060**

Texas residents add applicable sales tax.

©1993. AE Research, Inc. All rights reserved. Brand and product names are registered trademarks of their respective holders. All specifications, terms and services are subject to change without notice or recourse.