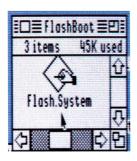


What is 3 times faster than a disk drive? A RAM Disk

Every Apple IIGs has a built-in RAM Disk capability that lets you reserve some of your computer's memory as a super-fast electronic disk drive. Set up your RAM Disk in the morning and you might not have to swap program disks all day! Thousands of users have already discovered the speed and convenience of the RAM Disk. Now you can, too, with FlashBoot.



FlashBoot lets you quickly save and load the contents of your RAM Disk. First, set up your RAM Disk the way you want it using the IIGS Installer and Finder. Then use FlashBoot to save a copy of your RAM Disk to a set of self-booting 3.5" disks. Now loading your RAM Disk is as simple as booting your backup disk—you don't even need FlashBoot to load it! Plus FlashBoot

offers a number of flexible options to boot the RAM Disk and the other drives attached to your computer.

What can you put on the RAM Disk? Anything you want! Using GS/OS and the Finder is no hassle with your IIGS System Disk installed in RAM. Add more fonts, desk accessories, and other enhancements—even Q Labs' Signature and Westcode's



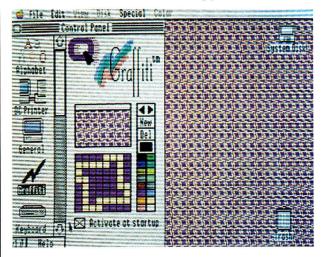
Pointless—to your RAM-based System Disk instead of being limited to a single 800K 3.5" disk. Put your AppleWorks GS System, Program, and Dictionary disk on the RAM Disk for integrated power. Or install HyperStudio, Platinum Paint, and Quickie software for a multimedia workstation. The possibilities are as wide open as your imagination!



FlashBoot is fully compatible with IIGS System 6 and all other hardware and software. Discover the RAM Disk speed and convenience built into your IIGS today with the Q RAM and FlashBoot!

FlashBoot\$29.95

Spice up your desktop



Is your IIGS just plain vanilla? Now you can make it any flavor you want — with Signature GS, Q Lab's set of C-Devs that will soup up your Apple IIGS. Signature GS lets you create a computing environment that is uniquely your own. With Signature GS you get:

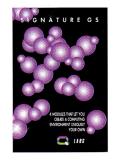
PHANTASM — A utility that prolongs screen life — and looks good doing it. When your screen has been still too long, it can become damaged. Phantasm prevents damage by automatically giving your screen something to do. A variety of fun, attractive screen activities are available, plus you can tell Phantasm when to come on.

GRAFFITI — There's nothing wrong with the IIGS desktop — except it's boring. Graffiti gives you a variety of colorful desktop patterns to choose from — or you can create your own.

SONICS — The "S" in IIGS stands for sound. Sonics lets you customize your IIGS sounds, and assign special sounds for specific functions. And these aren't just beeps — they're fun and entertain-

ing. Add sounds to Insert/Eject Disk, Dialog Boxes, etc.

BOOTMASTER — Changing the configuration of all your IIGS's drivers, and system elements can be a pain. But BOOTMASTER makes it easy by putting the controls for all your IIGS's drivers, CDAs and NDAs on one master control panel. You turn them on and off at will — and change your selections easily.



Signature GS\$29.95



1-800-443-6697

20200 Nine Mile Rd • P.O. Box 665 • St. Clair Shores, MI 48080 Phone 313-774-7200 • Fax 313-774-2698



NOT SO FAST!

Your Apple II® or IIGS® is still one of the best home computers ever produced. Why? Because Softdisk Publishing supports your Apple with 60 to 80 new programs every year. And, these programs can all be yours for ABOUT A DOLLAR EACH!

SOFTDISK™ and SOFTDISK G-S™ are software subscriptions produced especially for Apple II computers. After 10 years of publishing, we've gathered some of the nation's leading programmers to offer you all-new, all-original programs. With SOFTDISK or SOFTDISK G-S you'll find that your Apple is far from obsolete.

Each month five to seven new programs will come to your mailbox postagepaid. And, if you're like most subscribers, you'll find that a single program is worth the cost of the entire subscription.

SEND NO MONEY NOW!

Try a sample issue of SOFTDISK or SOFTDISK G-S risk-free. Check our "Bill Me" option and mail or fax the coupon back to us or call Toll-Free 1-800-831-2694, Ext. 1004. Why not try it now? You have nothing to lose but your worries about your Apple!

Here's what you'll get with your monthly subscription:

- A variety of games, educational tools, and productivity programs for the entire family—5 to 7 new ones every month.
- No shareware or public domain no extra fees—we even pay postage.
- your own back-ups.
- Not copy-protected; you can make

- FREE TECHNICAL SUPPORT from SOFTDISK computer experts.
- Full easy-to-use documentation on disk.

ACT NOW AND RECEIVE A FREE GIFT!

Call 1-800-831-2694, Ext. 1004, now to try an issue risk-free. Review your first issue. If you're not completely satisfied,



*Available on a back issue.

for any reason, return our invoice marked "cancel" and you'll owe nothing! The first issue is yours to keep FREE. Order either SOFTDISK for the Apple II or SOFTDISK G-S for the IIGS. If you own a IIGS, you can enjoy both with our special combo rate—each subscription is totally different.

We're so sure you'll love SOFTDISK and SOFTDISK G-S that we'll even send you our Premium Graphics Collection, Vol. 4, with your paid subscription. It's yours FREE just for subscribing.

CALL NOW 1-800-831-2694, Ext. 1004 OR MAIL COUPON, OR FAX TO 318-221-8870

SOFTD!SK™ SOFTD!SK G-S°

Softdisk Publishing • P.O. Box 30008 • Shreveport, LA 71130-0008

SYSTEM REQUIREMENTS: SOFTDISK-APPLE II+, IIc, IIc+, IIe (enhanced), llos and Laser 128 computers 64K required, 128K recommended. SOFTDISK G-5—Apple llos computer 1.0 meg and one 3.5" drive required, 1.25 meg and two 3.5" drives recommended.

names are trademarks of their respective companies Softdisk and Softdisk G-S and any names of programs appearing on Softdisk and Softdisk G-S are trademarks of Softdisk,

Quality Computers Apple Overnight





Enhance is Quality Computers' bi-monthly informative-technical-entertaining newsletter. Enhance gives you the kind of information you need to make your Apple the effective work/ educational tool it was designed to be, like product reviews and comparisons, new product announcements, news, and two special sections, Enhancing Education — focusing on key educational topics like grants, fund raising and hypermedia applications; and Club Corner — designed to spark interest in User Groups across the country.

Enhance also includes our catalog — full of all the hardware and software you need for your Apple II. Quality Computers catalog includes detailed product descriptions and MONEY-SAVING COUPONS.

Quality Computers has been publishing Enhance for over 4 years. It's free to all QC customers, or you can call for your free subscription today!

"After reading through this issue of Enhance, I am ready to invest in upgrading my Apple IIGS and add some programs rather than go to the MS-DOS computers. You have restored my faith!"

Robert C. Donald Hall Park, OK

"You publication is every bit as informative as the other

HARD DRIVES

MIALITY COMPUTERS

40 MEG. w/o SCSI	389.95
100 MEG. w/o SCSI	589.95
200 MEG. w/o SCSI	899.95
45 MEG. Removable	499.95

APPLIED ENGINEERING

40 MEG. Vulcan 569.95 100 MEG. Vulcan 949.95



QUALITY COMPUTERS

The Q Drive is the best SCSI hard drive available. Automatically formats itself for He or HGS, and comes with 15 MEG of free software.

40 w/o SCSI card .. 389.95 See page 4



Quality Computers does it again. Tired of the low quality of many RAM cards, we built our own. The Q-RAM card uses SIMM modules to boost your IIGS's memory. The Q-RAM card comes with a 30-day, no-hassle trial period, and a 5-year warranty.

•			
	1 ME	6	99.95
	2 ME	G	149.95
	4 ME	G	249.95

SCSI INTERFACE CARDS

APPLE

Apple High-Speed 109.95

MEMORY CARDS

OHALITY COMPUTEDS

dournes i commen	-110
Q-RAM GS	
1 MEG	99.95

MEMORY CHIPS

MACINTOCH

TILL POINT GIEUS		MAGIN I USN	
AEG. w/o SCSI	389.95	1 MEG. SIMMs	49.95
MEG. w/o SCSI	589.95	2 MEG. SIMMs	79.95
MEG. w/o SCSI	899.95	4 MEG. SIMMs	165.95
AEG. Removable	499.95	Mac Classic Modules	Call
		Zipps	49.95
LIED ENGINEERING	E.	Macsnap Toolkit	19.95

DISK DRIVES

APPLE

3.5" FDHD (IIe/IIGS)	349.95
Controller	114.95
APPLIED ENGINEERING	
AE 3.5"	199.95
AE P OF	

AE 5.25 139.95 AMR AMR 3.5" 1.4 MEG. 199.95

AMR 5.25" 129.95 LASER

Laser 3.5 149.95 Laser 5.25 99.95 Laser UDC 49.95

PRINTERS

APPLE

ImageWriter II 459.95



APPLE	II MEM	JHT	
256K .		1	9.95
OFCV.	Appendiction of the	A PROPERTY OF THE PARTY OF	O OF

1 MEG	
MACINTOSH MEMORY	,

MALIN	i vən m	EMIŲN I	
1 MEG.	SIMMS	- i	g.
Mac Ci			

Mac	Classic	 	Cal
7IPP	S	- 4	0 0
and the last	· ······		0.00

HEWLETT-PACKARD DeskJet 500 549.95

PANASONIC Panasonic 1180 199.95 Panasonic 1123 249 95

CTAD

UIMI	
NX-1020 Rainbow	249.95
NX-2420 Multi-Font	349.95
NX-2420 Rainbow	379.95

PRINTER **'NTERFACES**

PPLIED ENGINEERING

arallel Pro	79.95
Buffer Pro 32K Option	89.95
Parallel/Buffer Combo	129.95
erial Pro	89.95
RANGE MICRO	
rappler 9 Pin	89.95

rappler Plus 89.95 MT

29.95 rintech

HIRDWARE ngerprint GSi 89.95 ngerprint Plus 89 95 59.95 ngerprint G+ w/cable

ETEC uperWriter 924

NODEMS

PPLIED ENGINEERING

ngerprint SS w/cable

ataLink 2400 (Internal) 159.95

MODEMS

DataLink Express	
w/MNP5 &Send-FAX	299.95

SUPHA GUNP.	
SupraModem 2400	99.95
SupraModem Plus	
w/MNP5	159.95
SupraModem Plus	
W/EAV (Man)	200 05

SupraModem 9600 529.95 SPECIAL!

SupraModem 2400. Cable, and TIC

SPECIAL! SupraModem 2400 Cable, and ProTERM 189,95

MONITORS

Custom Cable (GS)

12" Amber Monochrome	99.95
MAGNAVOX	
Magnavox RGB	299.95

INPUT DEVICES

APPLE AppleMouse IIe	119.95
CH PRODUCTS	
Dallas Marias	80.05

Mach III Joystick 29.95 Flightstick 47.95

EDMARK TouchWindow 275.95

KENSINGTON Turbo Mouse

114.95 KEYBOARDS

IBM-Style Keyboard 79.95 IIGS/Mac ADB Keyboard 129.95 lle Rep. Keyboard 64.95 Numeric Keypad Ile

LASER

Laser Mouse (Ile, IIc)	49.95	
IIGS MICE		
A+ ADB Optical Mouse	89.95	
Mighty Cat Mouse	89.95	

THUNDERWARE

LightningScan (Mac) 385.95

VITESSE

Quickie 3.0 (Ile, IIGS) 199.95 Quickie Update 74.95



QUALITY COMPUTERS

This new guide touches on a broad range of items that can perk up your Apple II including hard drives

Apple II Enhancement Guide6.00

SOUND & GRAPHICS HARDWARE

APPLE

Video Overlay Card 449 95

APPLIED ENGINEERING

Sonic Blaster 59.95 Audio Animator

DIGITAL VISION

ComputerEyes #6 ComputerEyes 55 · 😕 🔀

Quality Computers Apple Overnight 1-800-443-6697







VITESSE

The new Quickie 3.0 includes exciting upgrades to both ProDOS 8 and GS/OS versions. The new ProDOS 8 version supports line art and photo scanning with dithering, and more. The GS/OS version offers new features in the tool palette including lasso, eraser, pencil and fatbits. There is also a "merge scan" command.

Quickie 3.0	199.95
Ouickie/InWords Combo	268.95



VITESSE

Salvation Supreme is the complete hard drive utility for the Apple IIGS. It includes: Bakkup, for high-speed backup and restore; Exorciser, to detect and cure viruses: Wings, a comprehen-

sive hard drive management system; Renaissance, for fast, thorough optimization; and Deliverance, to recover lost files and find bad blocks.



BYTEWORKS

ORCA/M 2.0 supports all of the new features of Apple operating systems, including longer path names, resources, and networks. It is faster, and has loads of new features to make

programming easier. You also get GSBug to help you debug machine language programs, and Apple's Rez compiler and Derez decompiler to create and modify resources.



Orca/M 79.95



HYPERMEDIA

Hypermedia is a creative environment where even non-programmers can bring graphics. sound and text together, in an interactive and interconnected way.

~~u!>	
HyperStudio GS 3.0	. 99.95
HyperCard GS	
Tutor-Tech (lic lie ligs Laser 128)	

- School Editions/Lab Packs Teacher Bonus Program
- Overseas Orders Accepted Circle 136 on Reader Service Card.

PASSPORT DESIGNS

MIDI Translator

STREET ELECTRONICS

COMPUTERS

IIGS CPU w/1 MEG

APPLE

LASER

Laser 128EX

Echo II

Laser 128 Color System 510.95

EasyDrive

1185

Complete management sys-

tem for your hard drive. In-

cludes Launcher, Backup/

Restore, Index program,

EasyDrive 39.95

1.895.95

649.95

899.95

299 95

59 95

219.95

289.95

84.95

77 95

79.95

89.95

78.95

139.95

59.95

69 95

24 95

39.95

11.95

9.95

24.95

19.95

7.95

5.95

2.95

4.95

19.95

4.95

74.95

14.95

39.95

from14.95

from 19.95

Call

1,179.95

ProDOS Guide, and more.

PROJECTORS

School P.O. required

ACCESSORIES

Ile Enahancement Kit

APPLIED ENGINEERING

TransWarp GS w/32K

TransWarp SE (Mac)

Power Supply IIe/II+

Power Supply IIGS

TimeMaster H.O.

System Saver IIe

System Saver GS

Anti-Glare Filter

MISCELLANEOUS

Extended 80 Col. Card

TransWarp GS Upgrade

TransWarp IIe

TransWarp GS

Conserver

FastMath

KENSINGTON

Copy Stand

-Dust Cover

Disk Holders

Switchboxes

Mouse Pad

NITE OWL

SMT

Screen Cleaner

IIGS Battery Kit

No Slot Clock

Zip IIe 8MHz

ZIP TECHNOLOGY

SvQuest Cartridges

Keyboard Skins

3.5" Diskettes (10)

5.25" Diskettes (10)

ImageWriter Rib. Blk

Phont Net Connectors

ImageWriter Rib. 4-C

Cables

INFOCUS SYSTEMS

PC Viewer 1600LC

PC Viewer 200S

PC Viewer 480S

APPLE

PC Viewer 480GS

Overhead Projector

QUALITY COMPUTERS

109.95

799.95

387.95

YYPERMEDIA

X-Commands 35.95 Clip Art Vol. 1 or 2 19.95 Clip Sounds 19.95 HyperCard IIGS 79.95 Tutor-Tech (All Apples) 149.95

WORD PROCESSING/ DATA BASE/

SPREADSHEET

BEAGLE BROS.

48 95 BeagleWrite BeagleWrite GS 59.95 BeagleWorks (Mac) 199.95 BeagleWorks Upgrade 99.95 BRØDERBUND

Bank Street Writer Plus

CLARIS AppleWorks 3.0 169.95 AppleShare Version 1,089.95

49.95

199 95

199.95

MICROSOFT

AppleWorks GS

ClarisWorks (Mac)

MicroSoft Word (Mac) 279.95 MicroSoft Write (Mac) 82.95 MicroSoft Excel (Mac) 329.95 Microsoft Works (Mac) 189.95



QUALITY COMPUTERS

The Quality Computers Video is packed with the information your need. You'll get valuable how-to tips, and see. products in action!

QC Video	*************	9.95
----------	---------------	------

SENSIBLE SOFTWARE

Sensible Gramma v.2.0 Macintosh 49.95 Sensible Speller 49 95 Bookends 74 95 Report Card II 42.95

WESTCORE InWords (OCR) 79 95 Pointless

WORD PERFECT

WordPerfect IIe or IIGS 109.95 WordPerfect (Mac)

BUSINESS & FINANCE SOFTWARE

ACTASOFT

Alpha Check Plus 39.95 Family Finance INTUIT

Quicker MARZANTA

BusinessWorks Bundle 299 95 BusinessWorks Payroll 99.95

44 95

ANT-PA

Managing Your Money 99 95

SEVIEW MILLS 32.95 Shoe Box

SOFTWARE ProTERM 3.0 79.95 School Pack 279 95

59.95

COMMUNICATION

EDUCATIONAL SOFTWARE

Point to Point

ORANGE CHERRY — TALKING SHOOLHOUSE

Talking ABC's GS 38 95 Talking Classroom GS 38.95 Talking USA Map GS 38.95 Talking Speller I GS 38.95

THE LEARNING COMPANY

Reader Rabbit 24.95 Talking Reader Rabbit GS 34.95 Math Rabbit 24.95 Children's Writing & **Publishing Center** 34 95 The Writing Center (Mac) 54.95 School version 94.95 BRØDERBUND

Carmen World

25.95 **IIGS** version 29 95 Macintosh version 29.95 Carmen USA, Europe, Time, or World GS 29.95 Carmen America's Past (IBM) 39 95 24.95 The Playroom Macintosh version 29.95 The New Print Shop 29.95 Print Shop IIGS 36.95 Katie's Farm or McGee 24.95 McGee at the Fun Fair 24.95 Kid Pix (Mac) 34 95 54 95 Science ToolKit Sim City (Mac) 32.95 Sim Earth (Mac) 42.95 The Treehouse (IBM) 34.95

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 Reading 24.95 Sticky Bear Talking Alphabet GS 32.95

MECC

32.95 Calendar Crafter GS Storybook Weaver GS 39.95 Number Munchers 24.95 Word Munchers 24.95



CHAUTY COMPUTES

RepairWorts rescues you from the grief of damaged AppleWorts files by recovering and repairing those illes InCider Editors Choice.

Oregon Trail	24.95
Oreon Trail (Mac)	29.95
Super Munchers (Mac)	29.95
USA GeoGraph GS	54.95
World GeoGraph 6S	39.95
m a name-falls	

AlgeBlaster Plus 29.95 Grammar Gremlins 29.95 MathBlaster Plus 29.95 MathBlaster Myste 29.95 Talking Math & Me 6S 32,95 Read 'n Roll 29.95 Spell It Plus 29.95

29.95

Word Attack Plus



RELIABILITY, AFFORDABILITY, INNOVATION—QUALITY

The Q-RAM GS



When we could no longer find reliable, affordable hard drives, we made our own—the Q Drive. The Q Drive made Apples faster and easier to use. In fact, it was such a success that we had to wonder why we'd waited so long. Now we've done it again.

Introducing the Q-RAM GS memory card.

The Q-RAM GS is an economical way to add up to 4 MEG of memory to your Apple Iles. It's fully compatible with all Apple Iles hardware and software—including the Iles 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 convenient 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 lies memory cards in a 1 MEG configuration!

PRICE
99.95
149.95
249.95
ee • 5-year warranty

The Q DRIVE



Thousands of drives later, experts still are praising the Q Drive for its performance and value. *inCidet/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 Conner mechanism using the latest technology, including autoparking 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.

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. If you run into a snag, our technical support staff is available for the cost of a phone call. 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!

CAPACITY	w/o Apple SCSI	w/Apple SCSI
40 MEG	389.95	499.95
100 MEG	589.95	699.95
200 MEG	899.95	999.95



1-800-443-6697









A+ PUBLISHING

PRESIDENT/GROUP PUBLISHER Paul Boulé

EDITOR IN CHIEF
EXECUTIVE EDITOR
SENIOR EDITOR
ASSOCIATE EDITOR
SPECIAL-PRODUCTS MANAGER
WEST COAST EDITOR
CONTRIBUTING EDITORS

Dan Muse
Eileen T. Terrill
Paul Statt
Cameron Crotty
Janet Cote
Jeff Cable
CONTRIBUTING EDITORS

Cynthia E. Field

Gregg Keizer Joe Kohn Ruth K. Witkin

DESIGN

ART DIRECTOR John Sizing
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
(800) 441-4403

ADVERTISING COORDINATOR
Mary Hartwell

ADMINISTRATIVE ASSISTANT Lisa Benway-Caron

CIRCULATION

CIRCULATION DIRECTOR Megan Lane
CIRCULATION MANAGER Laurie K. Seamans
CUSTOMER SERVICE (800) 289-0619

MARKETING SERVICES/PROMOTION

DIRECTOR OF MARKETING Peg Brown
MARKETING ASSISTANT Rita Rivard

CENTRAL SERVICES

SINGLE-COPY SALES VICE PRESIDENT

SINGLE-COPY SALES DIRECTOR
SINGLE-COPY SALES DIRECTOR
(800) 343-0728

NEWSSTAND PROMOTION MANAGER
DIRECTOR OF CREDIT, SALES,
AND COLLECTION

Gerald Kemmet
Linda Ruth
(800) 343-0728

Johanna Rivard
William M. Boyer

AUDITS AND STATISTICS CA FOUNDER W

TISTICS Cecile Giguere
OUNDER Wayne Green

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



inCider/A+ (ISSN #1054-6456), an IDG publication, is published monthly by A+ Publishing, a subsidiary of Macworld 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 mast be prepaid in U.S. funds drawn on a U.S. bank. One year only: Canada \$37.97 (price includes CST_#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 inCider/A+, P.O. Box 1051, Fort Erie, Ontario 124 SN8.)

Quality Computers Apple Overnight 1-800-443-6697



Quality Computers **





SENSIBLE SOFTWARE

Everyone who writes needs Sensible Grammar. Sensible Grammar is the easy-to-use proof reader that checks your documents for common writing errors . Sensible Grammar

checks punctuation, and compares your writing against its library of over 2,000 informal, cliche, vague, wordy, repetitive, racist, sexist and other faulty phrases

Sensible Grammar 49.95



BEAGLE BROS.

BeagleWorks offers you seven modules, and the ability to link documents and combine data from any of the modules into a single document. Then you can make changes to the original file without having to leave the document in which you are working. Modules include: word processor, data-

base, spreadsheet, draw, paint, charting and communications.

BeagleWorks (Mac)199.95



ABRACADATA

Design Your Own Railroad lets you design to-scale model layouts covering areas 4 feet to 9,999 feet wide. You select the model scale you need. The program provides precise radii for the curves and lets you print layouts. You can also create a working model layout and run up to 16

cars per train, add simulated switches, cargos, destinations, crashes and more

Design Your Own Railroad 34.95



SUPRA

SupraModems are 100% compatible with industry-standard "AT" commands and all commonly used protocols. They feature auto-answer, auto-dial, and much more.

SupraModem 2400	99.95
SupraModem Plus w/MNP5	. 159.95
SupraFAXModem (Mac)	. 209.95

 Technical Support Free Enhance Subscription

The Largest Selection

Circle 136 on Reader Service Card.

MINDSCAPE

Crossword Magic 4.0 34.95 SOFTWARE TOOLWORKS Mavis Beacon Typing 27.95 IIGS or Mac version 32.95

SPRING BRANCH

GS Numerics 84.95 Mac Numerics 139.95

ENTERTAINMENT SOFTWARE

QUALITY COMPUTERS

14.95 Deja Vu 2 14.95 Silent Service 14 95 Shadowgate GS 14 95 Captain Blood 14.95 Star Saga: One 14.95 Alien Mind GS 14.95 ANY 3 FOR 36.95

OTHER GAMES Battle Chess GS 32.95 Chess Master 2100 29.95 Cribbage/Gin King 32.95 Cryllan Mission/Scenario 44 95 Crystal Quest GS Hover Blade 29.95 Secrets of Bharas 44 95 Tetris 27 95 Xenocide GS 32.95

GRAPHICS SOFTWARE

ABRACADATA

Design Your Own Home 44.95 **IIGS Versions** 59 95 Design Your Own Railroad 34.95 Design Your Own Train

BAUDVILLE

8/16 Paint (Ile, Ilc, IIGS) 49.95 Award Maker Plus 29 95 Award Maker Plus 128K 36.95 Libraries each19.95

BEAGLE BROS.

BeagleDraw 64.95 GS Font Editor 32.95 Platinum Paint GS 59.95 Clip Art Library 32.95

BIG RED COMPUTER CLUB

28 95 Labels, Labels, Labels

RRANFRRIINN

24.95
34.95
29.95
each 16.95
36.95
29.95
each 24.95
29.95

DREAMWORLD

DreamGraphix (32 bit) 84.95 SEVEN HILLS

Font Factory GS 27.95 GraphicWriter III 89.95

TIMEWORKS

Publish It! 4 89.95 Publish It! Easy (Mac) 149.95

TRIAD VENTURE

Graphic Disk Labeler 24 95



QUALITY COMPUTERS

A rich harvest of more than 300 customization options for AppleWorks 2.0, 2.1, and 3.0. Easy to install and deinstall as you wish.

SuperPatch 8.0 34.95

BEAGLE BROS. TIMEOUT SERIES

DecisionPak 89 95 PerformancePak 69 95 StylePak 79.95 MacroEase 25.95 DeskTools, FileMaster, PowerPack, SideSpread, TextTools, or Thesaurus 32.95 QuickSpell, SpreadTools, or UltraMacros 40.95 SuperFonts, SuperForms Outliner, or Telecomm 42.95 ReportWriter 48.95 Graph 52 95

UTILITIES & LANGUAGES

BEAGLE BROS. Companion Plus

GS Desk Accessories 34.95 Program Writer 32.95 **BYTEWORKS** Orca/DesignMaster 49.95 Orca/PASCAL, Orca/M, or Orca/C 79 95 Orca Learn to Program 119.95 Orca/Disassembler 29.95 Talking Tools

32.95

CENTRAL POINT

Copy II Plus 29.95 **GLEN BREDON** 39 95 Prosel 8 Prosel 16 79.95

MICOL

Advanced BASIC IIe 59 95 Advanced BASIC IIGS 89.95 O I ARS

RepairWorks	34.95
SuperPatch 8.0	34.95
EasyDrive or TIC	39.95
Signature GS	29.95
A	

SEVEN HILLS

Independence 27 95 SuperConvert 27 95 Formulate 32.95

69.95

SOFTSPOKEN CrossWorks

VITESSE Salvation Series

Bakkup 2.0 44.95 Exorciser 34.95 Renaissance/ Deliverance Combo 44.95

Supreme (5 modules) 99.95 Harmonie 2.0 32.95

Perfect Image

BOOKS

Apple II Enhacement Guide 6.00 Using AppleWorks GS AppleWorks Made Easy 19 95 Print Shop Handbook 19.95 Your IIGS Guide 19 95 The Mac Bible 29.95 The System 7 Book 22.95

BUSINESS HOURS

Sales — 1-800-443-6697

Mon-Fri 9AM-8PM Eastern 10AM-4PM Eastern Sat

Support — (313) 774-7740

Mon-Fri 10AM-12/1PM-5:30PM

Eastern

Service — 1-800-443-6697

Mon-Fri 9AM-5PM Eastern

POLICY

. We ship via Federal Express, UPS, DHL, and US Mail. Saturday deliveries available. If order is split we pay freight on balance of items. Add \$3 95 for C.O.D. certified

- RETURNS: All defective or mis-shipped tiams may be returned within 30 days for replacement Items returned with damaged or incomplete papiaging will be charged packaging fees. No refunds on software items, unless otherwise specified
- Prices subject to phange without notice
- We accept school PID is by mail phone or FAX



Ouality Computers





00-443-6697

Ph: (313) 774-7200 Tech. Support: (313) 774-7740 Fax: (313) 774-2698 20200 Nine Mile Rd. • P.O. Box 665 • St. Clair Shores, MI 48080

Public Domain Software for only \$3.50

IIGS GAMES

GS110 Milestones 2000: This game is based on an old French game. You have to play mileage cards to advance your own auto while stalling your opponent with flat tires and accidents. Great graphics.



GS117 Star Trek Classic GS: A remake of one of the earliest computer games ever written. Fire your photon torpedoes and laser, do short range scans and use your warp drives to defeat Klingon and Romulan star ships.

GS103 & GS104 Cosmocade: On the first disk, you must Journey to Calibus in a fast-paced arcade style game. Disk two is called Naxos. A joystick is required.



GS145 Sensei: A karate-style game by the FTA. Use a joystick to fight your way into a black belt.

GS119 Columns 2.0: In this game which is similar to Tetris, you arrange falling blocks so that colors line up. Includes rock music background.

GS131 State-of-the-Art Games: This disk includes PlasmaLab 2, Xpurpose, Black Jack Tutor, From Beyond, FTA Plotting, Game Maker and Explorer GS.

GS129 Games, Games, Games: Cribbage, Rubik Cube, Poker Challenge, Solitaire NDA, Golden Bug, Elevators & Word Search.

GS105 Space Clusters: A clone of Galaxian.

GS118 Memory Card Game: Full color GS version of Concentration plus Wisconsin Rummy and Hearts.

GS157 Fun, Fun, Fun: A strategy game called Floortiles plus 19 other fun programs.

GS146 Easy Dead: Mindless arcade action.

GS137 Dr. Mario & Others: Tetris like game plus Quinette. PuzzleGS, and Pac Man NDA.



GS154 Bouncing 'Ferno: This game will remind you of Marble Madness as you attempt to bounce your way through a maze of ramps and elevated terraces. Brand new from the ETA

GS88 PixMix: Turn any SHR graphic into a fun onscreen jigsaw puzzle.

IIGS MUSIC

GS144: A large collection of songs for use with Electronic Arts' Music Construction Set.

SL01 MidiSynth™ Jukebox: This is the hottest music program available for the GS. Full orchestral sounds with unbelievable quality. You won't believe your ears.

SL02, SL03, SL04, SL05 & SL06: Six full disks of MidiSynth songs for the Jukebox program or System 6.0's synthLab disk.

GS53 SoundSmith: The best known music program for the IIGS will have you rocking.



NT00 Noisetracker Version 1.0: An exceptionally fine music program from France.

NT02 thru NT09: Eight disks full of songs and wildness for use with Noisetracker.

HYPERCARD GS

HC04 Hyperfun: Eamon Adventure game and an animation stack. Lot's of fun.

HC05 HyperHome: A tutorial for using HyperCard plus a chemistry stack and a check book management stack.

HYPERSTUDIO

HS26 & HS27 Civil War Stack: Learn about the causes, the personalities and the history behind the U.S. Civil War. Great graphics.

HS48 Developer Pack: Write your own extensions to HyperStudio 3.0.



HS46 Middle Eastern Stack: Learn the history and geography of Iraq, Iran, Kuwait and the other Middle Eastern countries.

HS45 Sound F/X: Digitized sound effects ready for use with HyperStudio. Beeps, drums, booms, barks, clangs and alarms.

HS43 Sound of History Vol 1: Learn history by hearing great speeches from the past.

HS37 Geography: Learn about US States.

ANIMATIONS

GS138 The Delta Demo: From the FTA in France, this program shows off the best of the IIGS: the graphics and the music!

GS135 Simple Animation Program: An animation workshop which you can use to design your own creations.

GS136The SAP Wall: Based on Pink Floyd's "The Wall", this animation will rock you.

GS94 Modulae, GS34 Nucleus, GS134 Animaga: More demo animations by FTA.

IIGS GRAPHICS



GS133 Religious Print Shop GS Graphics: Eighty all-new graphics for Print Shop.

GS07, GS08, GS29, GS35, GS77, GS78, GS100, GS106 & GS123 Graphics, Fonts and Borders for Print Shop GS: Nine completely different disks for use with Print Shop Each disk contains at least 72 multi-color graphics and most have borders and fonts.

GS48 GIF Graphics: 75 colorful graphics in GIF format plus an all-new IIGS graphic utility program to view or convert them.

GS124 Dinosaur Clip Art: Black & white clip art (640 mode) of dinosaurs.

GS59, GS64, GS67, GS73, GS74, GS86, GS87 & GS98 Super Hi Res Clip Art: These 8 disks contain clip art converted from the Mac. They're great for use with AppleWorks GS or HyperStudio.



GS148 DYA Exhibit A: A 3200-color slide show with 28 beautiful full-color graphics.

GS159 DreamVoir: View 3200-Color Pics.

TF01 thru TF04: TrueType fonts for use with Pointless. Get rid of those "jaggies!"

GF01 thru GF08: GS-type fonts for use with most GS programs or SuperFonts.

GS107 Yet Another Fractal Program: Create Mandelbrot and other fractal graphics.

IIGS UTILITIES

GS158 System 6.0 Special Effects: Spruce up your System 6.0 disks with these utilities.

GS120 Icon Mania: Everything you need to add new icons to the IIGS desktop. Two icon editors and hundreds of predrawn icons.

GS47 GS/OS Goodies: Our all-time best selling disk. This disk contains over 20 new desk accessories including ShowPic.

GS154 Gyrus Desktop Utilities: Everything a power user could want. Desk Accessories galore, including a calculator, a clock, a sound player, a Chinese Checkers game, Also an animated screen blanker, a SHR screen saver, a text file reader, utilities that load fonts & NDAs "on the fly". Much more!

GS151 Way Cool Jazz: Now you can jazz up your GS just like the experts do.

GS99 Twilight Screen Saver: This CDev is a completely modular screen saver which operates from within GS/OS. This is a must-have program for all IIGS owners.

IIe & IIc PROGRAMS

R07 AppleWorks Patcher: Fix up your AppleWorks 3.0 with these patches.

H73 CEEMAC: Kinetic art generator.

G46 Columns Ile: A Tetris-like game in which you rotate gems to match up columns.

G38 Arcade Games: Cu*bit, Night Crawler, Car Dodger, Slots and Avalanche.

G43 Flobynoid: Clone of Arkanoid.

G22 Public Domain Defender: Fly your space craft and shoot down aliens who are trying to kidnap humans from the ground.



P50, P51 & P67 Multi-color Graphics for The New Print Shop: Each disk contains over 30 all-new full-color graphics for TNPS.

P70, P71, P72 & P73 Christian TNPS Graphics: Each disk contains 120 different black & white graphics for The New Print Shop. All the graphics have a religious theme.

C47 U.S. Geography: USA Jigsaw and US Capitals make this disk fun and educational.

G301 Guadalcanal: Re-enact the World War II battle in the Pacific. Requires 3.5" drive.

GS155 Computer Keyboarding: Learn to be an accurate and fast touch-typer. Requires 3.5" drive.

C42 Math Word Problems: Learn the basic procedures involved in solving algebraic word problems of rate and time or mixtures.

C55 Number Games: A collection of simple math games for elementary students.

Only \$3.50 per disk. Why Pay More? To order call: (402) 379-4680

All the disks listed in this ad (plus hundreds more) are available from Big Red for only \$3.50 a piece. And if you order ten or more disks, the price drops even lower to only \$3.10 per disk. This price includes shipping and handling to U.S. addresses. To order, write or call today. We accept MasterCard, Visa, school purchase orders or personal checks. Please note: Some of the programs listed here are shareware. Help Support Shareware! Free Catalog Available.



423 Norfolk Avenue Norfolk, NE 68701-5234



ARTICLES

Totally Radical Mac by Owen W. Linzmayer It may be hip to be square if you're Huey Lewis & the News, but it's a death wish for any respectable Mac user. Truth is, Macs just wanna be cool . . . And, luckily, it's easy to customize the Mac's operation to reflect your unique style. inCider/A+ has once again combed through the best user-group libraries, on-line databases, and commercial offerings in search of neat programs and products that fit just one strict requirement: They have absolutely no redeeming value other than the totally radical coolness they bestow on Macs and their owners.

Shareware: Catch of the Day by Joe Kohn What's new for the Apple II? Whether you're after fun and games,

a boost in small-business or home-office productivity, or a supplement to your classroom lessons, thousands of programs are available, with more appearing every day. Don't look for them at your local dealership, though — we're talking about shareware, freeware, and public-domain products. Dial up an on-line service, visit your local user group, peruse a specialized mail-order catalogue — you're in for a money-saving treat.

p. 34

COLUMNS

inCider's view * Dan Muse	0
Who's Driving?	ŏ
Bridging the Gap * Gregg Keizer	
Looking Ahead	20
AppleWorks in Action * Ruth Witkin	
Paper Tiger 2	46
Press Room * Cynthia E. Field	= 0
At Your Fingertips	50
Learning Curve * David D. Thornburg	
Homecoming 2	64

)FPARTMENTS

Letters	10
What's New	
News, New-Product Focus, First Look	12
Apple Clinic	
Less Is More:	
Hard-Driving IIc,	
ORCA or APW?,	
À la MS-DOS Mode,	
Custom Icons,	
ProSel's Undoing,	7.
Replacement Keys, Safety First18	07
Reviews	0
ProTerm 3.0,	. 2
Gold of the Americas,	p. 2
First Aid with Reddy,	26
Wordtris, Apple II Report	40
Hints	F0
Macro Mania	58

p. 40

Cover Photograhy * Ed Judice Illustration * Ned Shaw Star Trek Graphic * Drew Huffma

INCIDER'S VIEW

WHO'S DRIVING?

A funny thing happened on the way to a low-cost color dynasty: Apple made a pit stop.

o one will dispute the statement that the Apple IIGS is a great computer. Its sound, its graphics, and its ample supply of slots for expandability have made it a hit with a million home, small-business, and education users. But a funny thing happened on the road to building a low-cost color dynasty: Apple stopped the car. It never improved on the GS or marketed it the way it should have or the way it could have. For one thing, Apple never boosted the GS' random-access memory to an



By DAN MUSE * EDITOR IN CHIEF

acceptable level. The original machine shipped with a mere 256K; then Apple bundled a memory card with an additional 256K. Eventually the system shipped with 1 megabyte on the motherboard, but by that time it needed 2 megabytes to handle GS applications.

Apple's lack of attention created a large third-party market, but word was out that the GS out of the box didn't exactly show off 16-bit software such as AppleWorks GS. Software vendors became reluctant to develop for a machine with inherent — though not insurmountable — weaknesses.

If Apple had shipped a GS with 2 megabytes (or more) of RAM and an 8-megahertz 65816 CPU (central processing unit), who knows how much more successful the GS would have been? But that could be precisely why Apple never really invested in improving or marketing the GS.

When *inCider* reported on the new GS in October 1986, Review Editor Eric Grevstad commented that "the IIGS is a splendid product. My fear is that Apple will hide its light under a bushel." By the late '80s it became clear that Grevstad's fear was well founded: Apple was a Macintosh company and promoting the IIGS wasn't on the agenda.

Unfortunately for Apple, the alternatives were a hugely expensive color Mac or a black-and-white Mac. Those scattered offerings provided room for IBM and assorted clones to move into the education market.

Has Apple learned from the mistakes it made with the GS? Based on the success of the Mac LC, it appears that it has. The LC is probably the best-selling Mac right now — but it's also one of the lower priced. True, the original LC has some limitations. The 68020 chip is old technology, incapable of taking advantage of System 7's virtual-memory capabilities. And the machine's standard 2 megabytes of RAM is simply no match for the new operating system.

In March, however, Apple shipped the LC II — no major revision, just some things that make it a more attractive purchase, such as a 68030 processor and 4 megabytes of RAM on the logic board. Rumor has it that an LC with a built-in CD-ROM drive and an Apple IIe Card on a chip will follow this fall.

Apple now sees that it's important to have a low-cost color system for home and school. It also seems to realize that it can't hold back on features under the assumption that the consumer will simply move up to the next level — in this case, the Mac IIsi.

Apple sold about a million GSes. It could have sold three million. When you look at a GS with an internal hard-disk drive, an accelerator, and gobs of RAM running Hyper-Studio, AppleWorks GS, or even 8-bit Publish It! 4, you realize that the GS is a powerful system. Unfortunately, the road to that power is one you have to travel alone.

Apple clearly blundered with the GS, probably because within Apple itself no one could agree about where the machine was supposed to fit in. The LC, however, is clearly the low-end Mac. Apple now seems to understand the importance of making lower-cost machines technically sophisticated. The LC still needs to be faster, and its single-slot architecture is limiting. But Apple's on the right track.

The GS succeeded despite Apple. Still, a lot of users and developers took it on the chin because Apple never set a clear course for the GS. On the road to a powerful LC, we hope Apple stays in the driver's seat.

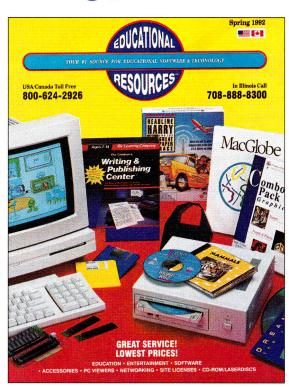
The Educational Times



International Edition

Summer 1992

Catalog provides resource for parents and teachers



Educational Resources, North America's largest supplier of educational technology receives rave reviews on their latest catalog complete with:

- Lowest Prices Available
- Software (Apple, Macintosh, IBM)
- Home/School Versions
- Lab Packs
- CD-ROM/LaserDiscs
- Hardware/Accessories

Parents and teachers from all over the country are commenting about the outstanding service, widest selection and lowest prices they receive from Educational Resources. With savings up to 60% everyday, there is no other technology source!

Mac catalog first to hit the streets

Educational Resources Thousands of titles avail-

again hits the their news breaking Educational

front page with Widest Selection Arts. **Lowest Prices**

able in Language Mathematics, Science, History, Utilities,

Macintosh catalog! first and only catalog to specifically address educational Macintosh needs.

Productivity, Desktop Publishing and Multimedia. Call now for your free catalogs and save up to 60%.





Your #1 Source for Educational Software & Technology



USA/Canada

Illinois

708-888-8300

Call now for your free catalogs!





POINTING UP POINTLESS

HANK YOU FOR YOUR COVERAGE of our product Pointless. We'd like to clarify a few items from recent articles, however, that aren't quite accurate:

• In "True to Type" (What's New, March 1992, p. 15), the text mistakenly indicates that "Pointless creates outlines from GS fonts' bit-map information." In reality, Pointless doesn't create outlines from bit-map information; rather, it uses TrueType outline fonts the same way the Mac does.

• In addition, the article suggests that Pointless "translates" TrueType fonts into GS format. Actually, there's nothing for Pointless to translate. TrueType font files

• This section also mentions that Mac fonts displayed on the GS look "a little like Manute Bol." Owing to the aspect ratio of the GS screen display, both standard bit-map and TrueType fonts appear tall and thin. When these font types are printed, however, they look correct.

transferred to a ProDOS disk are the same

• In "Words into Print" (April 1992, p. 34) you imply that Pointless works with

PostScript fonts. Actually, Pointless uses only TrueType fonts.

- "A Glossary of Print Basics" (p. 35) restates the same general information from March's "True to Type," with the same inaccuracies.
- The "PostScript or No Script?" sidebar (p. 36) implies that GS/OS 6.0 will have built-in TrueType. In fact, the new operating system doesn't contain TrueType.

John Oberrick WestCode Software 11835 Carmel Mountain Road Suite 1304 San Diego, CA 92128

HAPPY WITH THE WORKS

READ WITH INTEREST THE ARTICLE "Integrated Software: Weighing Your Options," in the February 1992 issue (p. 28). While I agree with many of the author's comments on **Microsoft Works**, I disagree with the statement that "Microsoft has yet to produce a capable database."

As principal of a large elementary school, I use the database module every day to track the records of the student body. Over the course of more than two years, I haven't encountered any problems with the module; I find it to be powerful and responsive. I do find, however, that it takes quite a bit of prior database knowledge to get the most out of this program. I eagerly await Microsoft Works' anticipated 3.0 update.

James A. Mattern, Principal Romona School 600 Romona Road Wilmette, IL 60091

EQUAL ACCESS

SELDOM DO I ENCOUNTER A product or a supplier worthy of praise, but the Adaptive Firmware Card distributed by Don Johnston Developmental Equipment (P.O. Box 639, 1000

North Rand Road, Building 115, Wauconda, IL 60084, 708-526-2682) is such a product.

Multiple sclerosis leaves me with only limited use of my hands, yet this device lets me operate the computer (including the AppleWorks word processor) via a "puff/sip" switch. The card provides Morsecode mode, standard keyboard mode, and scanning and assisted keyboard functions.

Although I was impressed by the product literature, I was even more impressed by the courteous support I received. The folks in Don Johnston's customer-service department spent a great deal of time and effort working with me to resolve any problems I encountered as I learned to use the card. Sign me "A Satisfied Customer."

Martin Kilinski 435 East Henrietta Road Rochester, NY 14620

SPEED SHIFT

from J. Morris Prosser in your February 1992 issue concerning BUILD.SPEED and CHANGE.SPEED (p. 21), Softdisk G-S has recently published a program called FlexiBoot (by Jerry Kindall of Quality Computers, Softdisk G-S #28). Activate FlexiBoot on startup (warm or cold) by holding down the apple (command) key, then boot from any slot and change your system speed. Seems to be the perfect solution for users who want to run those old DOS 3.3 games at the correct speed without resetting the Control Panel permanently.

Lee Golden, Managing Editor Softdisk G-S 606 Common Street Shreveport, LA 71101

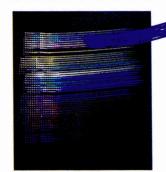
INCIDER/A+ WELCOMES READERS' COMMENTS. WE RESERVE THE RIGHT TO EDIT FOR CLARITY, STYLE, AND SPACE. ADDRESS YOUR CORRESPONDENCE TO LETTERS, INCIDER/A+, 80 ELM STREET, PETERBOROUGH, NH 03458.

files the Mac uses.



MS-DOS APPLEWORK

SuperWorks



INTEGRATION FOR THE NEXT GENERATION OF PC USERS

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, a dynamic and a complete capability communications package, in addition to unlimited keystroke macros.

SuperWorks uses only 170K in RAM 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 170K IN RAM
- ONLY INTEGRATED PACKAGE FOR NOTEBOOKS

30 DAY MONEY BACK GUARANTEE

Appleworks and Apple Logo are Registered Trademarks of Apple Computer Inc. and Claris Corporation.
 IBM and IBM Logo are Registered Trademarks of IBM Corp.
 MS-DOS is a Trademark of Microsoft Corporation

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."



SUPERWORKS BRINGS APPLEWORKS FUNCTIONALITY TO THE PC

LBW ®



Indicate Disc Size: 5½" Size 3'2" Size

CARD NUMBER

SIGNATURE

NAME

COMPANY

ADDRESS

CITY

STATE

ZIP

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

Special introductory offer

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

Circle 33 on Reader Service Card.

PER CALL TOLL-FREE: 800-782-1955 • FOR TECHNICAL INFORMATION

WHAT'S NEW

MAC LC II: READY FOR PRIME TIME

as half a million other people did — you probably discovered soon after turning it on that 2 megabytes wasn't enough RAM, at least not for Apple's newest system software. System 7 took more than half the LC's standard memory. But the new Apple Macintosh LC II is ready for System 7: Its microprocessor (a Motorola 68030, as in the Mac SE/30 and IIsi) lets it use memory more efficiently than the original Mac LC, and its standard memory is 4 megabytes — twice the original complement. (You can add as much as 8 additional megabytes.)

Apple has even upgraded the popular Apple IIe Card for the Mac LC II: It now works with System 7 as well as older operating systems. In addition, Apple reports that the machine's built-in video output can support "several VGA monitors" of the inexpensive MS-DOS clone type.

What's so different about a new microprocessor? The 68030's greatest advantage over the original LC's 68020 isn't speed — performance is reported to show only a slight increase if any— but that it lets the LC II's hard drive simulate "virtual memory." Virtual memory is a portion of the machine's relatively spacious harddisk drive (40 or 80 megabytes) that you can set aside and use as if it were part of the LC II's relatively small (4 to 10 megabytes) random-access memory. This memory-switching technique lets the LC II run bigger programs than the original machine could — although you wouldn't want to use virtual memory to run programs you use every day. It's slower than RAM and wastes valuable space on your hard drive. It makes sense for the long run to buy extra RAM. (See accompanying Figures 1 and 2.)

As noted above, the LC II comes with 4 megabytes of RAM on the logic board: Apple discovered that this was the most popular memory configuration among LC owners and made it the standard. The LC II has two slots for adding single in-line memory modules (SIMMs), as did the original machine.

The LC II, like the LC, has a single expansion slot. Because the LC II has a 68030 microprocessor, Apple can't call it the "020 direct slot" anymore; on the other hand, the Mac IIsi already has an "030 direct slot." Apple calls it the "LC slot," and it should work with most of the expansion cards compatible with the original LC.

The LC II won't work with 030 directslot cards. Call the manufacturer of any expansion cards you have before upgrading to an LC II.

The new LC II comes in two sizes: with 4 megabytes of memory and a 40-megabyte hard-disk drive for \$1699 (suggested retail price), or 4 megabytes and an 80-megabyte drive for \$1849. Current Macintosh LC owners can ask an authorized Apple dealer to install a 68030 logic-board upgrade in their machines.

At least one LC-slot card for the Mac LC II needs to be upgraded, too: Your Apple dealer must replace a chip on the Apple IIe Card before you can take advantage of the card and System 7 on the LC II.

Don't throw out your spare parts: If you've got, say, two extra 1-megabyte SIMMs in your old LC (for a total of 4 megabytes of RAM), you can pop them into your upgraded LC II for a total of 6. You can also use your original 512K video-RAM-expansion SIMM in the new LC II.

If you have an original Mac LC, it makes sense to upgrade to the LC II — especially if you haven't yet moved up to System 7 or if you've put off buying extra memory. And if you've put off buying a Macintosh until now, the Mac LC II — at a price that's unchanged — is a great value.

--- P.S.

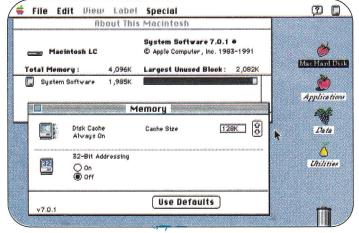


Figure 1. Short memory: The original Macintosh LC needed an extra 2 megabytes of RAM simply to boost its complement to the 4 megabytes needed to run System 7 and another program at the same time.

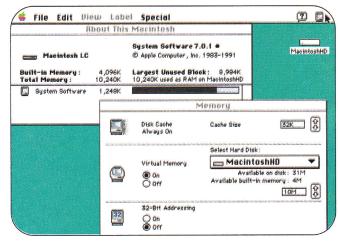


Figure 2. The Mac LC II starts with as much memory as an expanded LC. In addition, you can assign part of your hard-disk drive to work like RAM, as "virtual memory." This LC II now operates like one with about 10 megabytes of RAM.

"Apple II" indicates an 8-bit product compatible with Hes, Hcs, Hc Pluses, and IIGSes unless noted otherwise.

NEW SOFTWARE

THE RACE IS ON

uarter Mile, an old favorite Apple II game, has recently been upgraded. It plays the same: You answer math questions on topics ranging from whole numbers to fractions, from decimals to integers and

equations.

The series includes four different Quarter Mile games. with more than 40,000 problems in all. Your animated dragster speeds along at a rate determined by the number of problems you solve correctly.

Kids love Quarter Mile because they can hear the roar of the engine and the squeal of the tires - and everybody from kindergartners to grown-ups will enjoy the competition.

Quarter Mile's competitive nature makes tournaments in your class, in your school or district, or even in your state easy. Tournaments will be sponsored this year across the state of California; in the 1992-93 school year they'll take place across the country.

Every game in this new Quarter Mile series has been updated substantially — to appeal to older, more advanced students with topics such as equations and problem solving, and to help younger users with basic concepts such as keyboarding.

Each program sells for \$50, from Barnum Software, 2201 Broadway, Suite 201, Oakland, CA 94612, (510) 268-0804.

For more information, circle number 356 on the Reader Service card.



Jostens' Tapestry programs help youngsters improve literacy skills.

A 🔷 🧧 **EARLY LEARNING**

ostens' new Tapestry Early Childhood and Emerging Literacy lines, available in stand-alone and network versions for the Apple II and Macintosh (as well as IBM and Tandy), are a series of child-centered programs, designed to meet the needs of classes from pre-kindergarten through the third grade, including Head Start, Even Start, and primary students.

The Tapestry Early Childhood package includes 15 computer programs, storybooks, and audio cassettes, one Super-Print II Big Book Maker, ten trade books, one set of manipulatives, and a teacher's manual. The Emerging Literacy set consists of 30 computer programs, storybooks, and audio cassettes, and 25 student self-check books per classroom, as well. The Tapestry program also features Parental Involvement Components, including video cassettes, a presenter's manual, 12 monthly newsletters, daily activity calendars, and 18 "Bedtime and Beyond" storybooks and audio cassettes. Both packages are also available in Spanish.

Whether you prefer a struc-

tured classroom or let your students "learn by doing," the Tapestry programs can equip your young students with a solid foundation for success. Prices vary; for more information, contact Jostens Learning, Education Services, 7878 North 16th Street, Phoenix, AZ 85020-4402, (800) 422-4339, or circle number 350 on the Reader Service card.

COOL MAC STACKS

et's face it, you got a Mac because it was cool." If that description fits you to a T, then Cool Mac Stacks is the HyperCard gizmo for you no productivity tools here. This \$19.95 disk/book combination includes such memorable programs as The Pizza Navigator, a "what if" stack that lets you try different pizza combinations, assesses the costs, compares local pizza parlors, and even calls them on the telephone.

Too serious? Phone > Acronym generates letter equivalents for your phone number: "Call me, I'm 'FUN 4YOU.'" Sunrise tells you what time the sun rises and sets on any day anywhere in the continental United States.

But Cool Mac Stacks is also

an entertaining introduction to HyperCard and HyperTalk, and a great companion as you script your first stack. It even includes a number of utilities and tools to make your earliest stacks look professional.

David Drucker, author of Cool Mac Stacks, is director of education for the Boston Computer Society's Macintosh group. His book — plus 19 shareware and freeware stacks - sells for \$19.95. from Hayden Books, 1711 North College Avenue, Carmel, IN 46032, (317) 573-2500. For more information, circle number 352 on the Reader Service card.

THE OTHER SIDE **OF PUBLISHING**

o desktop-publishing program ever created a word of type: People publish newspapers, magazines, and books. If your students already have the tools to create a school newspaper but lack the skills. Student Publishing Company can help.

It's a HyperCard program for grades 6 through 12 that teaches the skills necessary to produce a publication and provides an introduction to the real world of publishing - the workaday world of editors. reporters, graphic artists, circulation managers, and advertising salespeople.

Here's how it works: "Student Publishing Company"'s not only the name of the program, it's the name of the company you'll form in your classroom.

Students have to apply for jobs, learn how to do their work, and face evaluations. You can use the program simply — in a one-day exploration of possible careers, for instance — or extensively at a school newspaper.

NEW-PRODUCT FOCUS

▲ MAC ◆ APPLE II ■ APPLE IIGS

Student Publishing Company does everything but put out the paper — you'll need a DTP package to do that. The program costs \$49, from Intellimation Library for the Macintosh, P.O. Box 1530, Santa Barbara, CA 93116-1530, (805) 968-2291. For more information, circle 355 on the Reader Service card.

NEW HARDWARE



SHARE A PRINTER

System GS, an intelligent print spooler, queues print jobs automatically from as many as seven Apple IIs, Apple IIsses, Macs, and MS-DOS compatibles. It's equipped with seven serial input ports, one serial output port, and one parallel output port. The serial ports are mini DIN-8 ports, just like the ones on your Mac, GS, ImageWriter, or HP LaserJet.

Print jobs are stored in a standard 256K buffer memory, which you can expand to as much as 4 megabytes, using readily available SIMMs like the ones used in Macs.

Q-System is compatible with AppleTalk. You can use one printer with as many as seven different networks if you need to, but, more realistically, you'll be able to combine networked and nonnetworked computers on a single printer.

Q-System GS sells for \$595; the smaller (six serial ports)

Q-System GSe sells for \$495.

A variety of other printer hardware and memory components for Apple II computers are also available. If printers are a problem in your computer lab, call or write Sequential Systems, 1299 Diamond Circle, Suite D, Lafayette, CO 80026, (303) 666-4549.

For more information, circle number 354 on the Reader Service card.

DISK DRIVE PLUS

pplied Engineering's **AEHD**Plus drive is a high-density
3.5-inch disk drive for the Mac

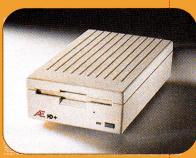
Plus, Mac SE, and Mac II. It

plugs directly into the external

disk-drive port. (An external

drive connector is available from

AE for the Mac II.) It's fully Super
Drive compatible, but doesn't



need the SWIM chip upgrade Apple's SuperDrive requires.

The AEHD Plus drive formats, reads, and writes high-density, 1.44-megabyte Mac disks, as well as 400K and 800K disks. The drive also works with 720K and 1.44-megabyte MS-DOS-formatted disks via Apple File Exchange, Dayna's DOS Mounter, or other transfer programs.

The AEHD Plus carries a suggested retail price of \$449, from Applied Engineering, 3210 Beltline, Dallas, TX 75234, (214) 241-6060. For more information, circle number 351 on the Reader Service card.

SUCH A DEAL

pplied Engineering is sponsoring a trade-in program to encourage every Apple IIGS owner to buy an **AE GS-RAM III** memory-expansion board. If you own any GS RAM card with

256K or more, from any board maker, you can trade it in for Applied's GS-RAM III with 2 megabytes for only \$139. The board normally retails for \$299

GS-RAM III was designed to use new RAM-chip technology to produce an efficient, low-power memory board. It comes with super-hi-res diagnostic software, as well as the widely known AppleWorks enhancement program AW 3 Expander. The Expander software adds several useful features to Apple-

Works versions 2 and 3, such as a print buffer and automatic segmenting of large files.

If you know you need 2 megabytes but have put off the purchase, now's the time. Contact Applied Engineering, GS-RAM Trade-In, 3210

Beltline, Dallas, TX 75234, (214) 241-6060. For more information, circle number 357 on the Reader Service card.

NEW RESOURCES

DISK'S IN THE MAIL

aving trouble finding highquality software for your Apple II? The brothers Sperber — Ray and Mark — have founded a mail-order company called **Raymark Enterprises** to make it a little easier.

For \$10, Raymark makes you a lifetime member; you'll receive a catalogue of publicdomain software, shareware, and freeware, and the current issue of the Raymark newsletter. Prices are low: Each 5.25-inch disk costs \$3; each 3.5-inch disk is \$4. (Prices are even lower for bulk orders.)

Products include games, educational software, business

software, utilities, graphics, fonts, GS software, and a selection of accessories such as blank disks, ribbons, joysticks, and mousepads.

Raymark even offers a search service for public-domain software not already in the extensive catalogue — and in some cases will write custom software if it can't find what you need.

To order or join, contact
Raymark Enterprises, P.O. Box
70443, Oakland, CA 94612,
(800) 2APPLE2, (800) 2277532. For more information,
circle number 353 on the
Reader Service card.

QUALITY PUPS

uality Computers has contracted with Beagle
Bros to service and support all Beagle Apple II software, including Platinum Paint, Pointto-Point, the BeagleWrite

series, and the TimeOut line of

AppleWorks enhancements.

Quality will also develop new Beagle Bros software; the first product scheduled is **TimeOut Grammar**. Beagle Bros will concentrate its own resources on its growing line of Mac products, including the integrated package BeagleWorks.

Joe Gleason, president and CEO of Quality Computers, says he hopes to keep the Beagle Bros stable of programmers active; you should continue to see the names Alan Bird, Randy Brandt, and Mark Munz, among others.

For more information, contact Quality Computers, 20200 East Nine Mile Road, P.O. Box 665, St. Clair Shores, MI 48080, (313) 774-7200, or circle number 358 on the Reader Service card.

ON HARRY'S TRAIL

PAPER CHASE IS AN OLD CHILDREN'S game, sometimes called "hares and hounds." The hares drop scraps of paper as they wander toward the goal; the hounds must trail the hares to the goal and pick up every scrap they drop. Headline Harry and the Great Paper Race, on the other hand, is a Mac game from the educational-software maker Davidson & Associates. It's more educa-

tional than hares and hounds, and not as frustrating as the proverbial paper chase, which is what we now call any endeavor that requires us to fill out an endless trail of forms. But Headline Harry isn't completely unlike bureaucracy in America, either.

The object of the game is to write a newspaper story. You play a cub reporter at the <u>U.S. Daily Star</u>. Headline Harry, editor of the <u>Star</u>, assigns you to uncover a story. You can't <u>cover</u> the story, because you don't know what has happened. Like a detective — the sleuth tracking Carmen Sandiego, perhaps — you have to first discover what happened. And like a reporter, you also must find out who did it, where, and when.

Specifically, you need to supply a date, a year, a place, an event, the names of key persons, and key words for events such as the first human landing on the moon, the Beatles' first North American TV appearance, or the nuclear incident at Three Mile Island. Our prerelease version included 12 historical events (or current events, depending on your age).

If you can uncover the "who, when, where, and why" of an event (the "what"), you're rewarded with a news story, written by the computer. You write the headline.

A typical editor, Headline Harry

wants you to get the story right and get it fast. His rival at the sleazy <u>Diabolical Daily</u> wants the same story, and the <u>Diabolical reporters</u> are out there, laying down false clues and trails. Red herrings make Headline Harry challenging — more than Carmen. You discover that not every trail in the paper chase bears following.

But it's not enough to be "right": You have to have exactly the information Headline Harry wants. For example, you might expect that one of the words associated with Three Mile Island would be <u>uranium</u> (it isn't), but you might not expect <u>movie</u>.

Unlike the Carmen games, which encourage you to look away from the computer for guidance — to an almanac, an encyclopedia, or a travel guide, for instance — Headline Harry supplies all answers internally. This marks it as more entertaining than educational. But Headline Harry is lots of fun. It's fun to watch, for one thing: Each story offers QuickTime movies. Taken from actual newsreels and TV broadcasts, the video still seems to be an afterthought, however.

It's fun to play, using a slick interface that combines a simulated VCR,

TAIL the news that fits..."

HEADLINE HARRY
AND THE
GREAT PAPER RACE

COLUMN ONE
Headline Harry in Race Against Diabolical Daily

• Known throughout the country for its high
the country for its hi



It's the <u>Star</u> versus the <u>Diabolical</u> as you race to sort out the red herrings from the real clues.

a phone to call the boss or Mom, a radio to catch the news, a notebook to jot down clues, and even an old-fashioned encyclopedia — all built into a "personal digital assistant" that would bring a tear to John Sculley's eye.

Headline Harry is software of the highest quality. It can be frustrating as well as fun, educational as well as entertaining. It's a game kids will remember someday — praise enough.

Headline Harry is priced at \$59.95, from Davidson & Associates, P.O. Box 2961, Torrance, CA 90509, (310) 793-0600. It requires 8-bit color capability and 2 megabytes of RAM for System 6.0.7, or 3 megabytes for System 7. You can install the game on your hard disk. Quick-Time is recommended; without it, moving-video portions of the game will appear as static screens. — **P.S.**

FIRST LOOK



Magnavox RGB

Applied Engineering

DataLink 2400	159
GS-RAM III, 1 MB	139
GS-RAM Plus, 1 MB	164
Parallel Pro	75
Parallel Pro	
w/ Buffer Pro	119
Power Supply (IIGS)	89
Power Supply (II Plus/IIe	78 (
RamWorks III, I MB (IIe)	194
Sonic Blaster (IIGS)	59
TImeMaster H.O.	78
TransWarp GS	227
TransWarp GS w/32K	285
TransWarp 32K Upgrade	79
Vulcan, 40 MB (IIGS)	599

Beagle Bros

Companion Plus	37
Outliner	41
Platinum Paint (IIGS)	57
TO SuperFonts	41
TO SuperForms	43
TO UltraMacros	36
TO Thesaurus	29
TO PowerPack	29
TO SideSpread	29

Central Point

Сору	II Plus v.9.1	39

CH Products

FlightStick	47
Mach III Joystick	31

Monitors

12" Amber	95
Magnavox RGB	288

Claris

AppleWorks 3.0	167
AppleWorks GS	195





Quickie, from Vitesse, is the only hand-held scanner for all "slot-equipped" Apple IIs, including the IIGS, IIe, II Plus, and the Laser 128. Quickie lets you digitize flat page images quickly in multiple sizes and save all or parts of them to disk in standard Apple II graphic file formats. Quickie is 100% compatible with the incredible InWords optical character recognition (OCR) software. InWords can recognize virtually any typeface, and it can even handle pages wider than the scanner head at up to 500 words per minute! (Requires

Circle 90 on Reader Service Card.

Quickie scanner and IIGS or 512K IIe).



Sonic Blaster

Sonic Blaster records, amplifies and plays back in full stereo. It can record sounds from your stereo, CD player, TV or VCR and alter them with a full range of editing functions.....59

Glen Bredon

Kensington	K 8 50
ProSel 16 w/manual	74
ProSel 8	34

Turbo Mouse	115
System Saver IIe	57
System Saver GS	65
Anti Glare Filter	35
Copy Stand	24
Dust Cover	11

InSync

•	
ProTERM v.3.0	77

Laser

Laser 128 Color System	499
Laser 190A Printer	209
Laser Mouse	49
Laser UDC Card	49

Pygraphics

Music Writer (Level 2)	199
Music Writer (Level 3)	399

Sensible Software

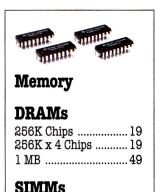
Sensible Grammar	54
Sensible Speller	54

Sequential Systems

Meg 80, 1 MB (IIe)	149
RAM 80 (IIe)	34

Seven Hills

Formualte	29
SuperConvert	24
Font Factory GS	24
Express	24
GraphicWriter III (IIGS)	89
Independence (IIGS)	25
Shoe Box	37



1 MB module 45

2 MB module74

4 MB module159

Games	
Tetris	26
Secrets of Bharas GS	39
Cryllan Mission 1 GS	39
Cryllan Mission 2 GS	39
Hover Blade GS	28
Dragon Wars GS	32
Supra	
2400 bd. Modem	85
9600 bd. Modem	279
ByteWorks	
ByteWorks Orea/M v.2.0 (IIGS)	87
•	87
Orca/M v.2.0 (IIGS)	87 119
Orca/M v.2.0 (IIGS) Learn to Program (C or Pascal)	•
Orca/M v.2.0 (IIGS) Learn to Program (C or Pascal) SoftSpoken	119
Orca/M v.2.0 (IIGS) Learn to Program (C or Pascal)	•
Orca/M v.2.0 (IIGS) Learn to Program (C or Pascal) SoftSpoken	119
Orca/M v.2.0 (IIGS) Learn to Program (C or Pascal) SoftSpoken CorssWorks	119

Renaissance/Deliverance

Salvation Supreme

Zip Technologies

Perfect Image

WestCode

InWords

Pointless

GSX (8/16)

Zip Chip (8 MHz)

Harmonie

Quickie

Macintosh

Abracadata

Design Your Own Home 64

Applied Engineering

3.5" High Density Drive 225 DataLink Express w/fax 299 QuickSilver (IIsi) 295 TransWarp SE, 25 MHz 779

AMR

1.44 MB 3.5 Drive 189 5.25" Disk Drive for LC 129

Apple

He Emulation Card 179 3.5" FDHD 349

Beagle Bros

BeagleWorks 199

Berkeley Systems

After Dark 2.0 29 More After Dark 25

Central Point

Mac Tools Deluxe 86

CH Products

Roller Mouse ADB 85

ChipSoft

MacInTax 65

Claris

ClarisWorks 199 SmartForm Designer 289 Resolve 289 FileMaker Pro 219 279 MacDraw II MacPaint II 2.0 92

Fifth Generation **Systems**

Pyro 4.0 29

Orange Micro

Grappler LS 79 Grappler LX 119

Sensible Software

Sensible Grammar v.2.0 54 Bookends II 75

TransWarp

TransWarp accelerators can speed up your Apple He, HGS, or Mac SE. IIe.....89 IIGS w/8K229 IIGS w/32K 289 IIGS 32K upgrade 84 Mac SE (25-40 MHz) Call

Software Ventures

Supra SupraFAXModem 209 9600 bd. w/fax 349

215

35

24

44

32

34

Symantec

Microphone II

GreatWorks 199 Norton Utilities 91 Symantec Anitvirus 71

ThunderWare

Patton Strikes Back

LightningScan 400 379

Games

RoboSport 35 Hardball II 32 35 Jack Nicklaus Golf Weltris 25 Tetris 25 32 The Dual Space Quest IV 35 35 Kings Quest V ChessMaster 32 Flight Simulator 35 Kid Pix 34 Glider 29 Indiana Jones & The Last Crusade 33

Hard Drive Bargains!

You've relied on Roger Coats for the best products at the best prices, and now he's got his own line of hard drives, the Masters. Using top-quality Quantum mechanisms, these are drives you can depend on.



Each Master hard drive features a platinum case with a universal power supply, external push-button SCSI selector, power cord, cable, and a 2-year warranty.

Master 5	2 MB w/o SCSI	card	339
Master 1	05 MB w/o SCS	I card	479
Master 2	10 MB w/o SCS	SI card	829

Circle 90 on Reader Service Card.

Hours:

Sales & Support Monday-Friday9AM to 8PM EST 20200 Nine Mile Rd · St. Clair Shores, MI 48080

Policy

We accept the following methods of payment: • School Purchase Orders · VISA & MasterCard · Bank Wires · Certified Checks · Money Orders Sorry, no C.O.D.'s, software refunds, or shipping & handling refunds Not responsible for product compatibility





Monopoly

Mutant Beach

Swamp Gas

RoboSport

31

195

95

19

77

47

199

139



LESS IS MORE

For fans of the compact IIc, a hard drive opens up new options in storage and operation.

By CECIL FRETWELL

HARD-DRIVING IIc

RE THERE ANY HARD-DISK drives still available for the Apple IIc? I've been trying to contact Chinook Technology of Longmont, Colorado (supposedly the only manufacturer of IIc hard drives), for some time now with no success.

Charles J. Sarchet U.S.S. <u>Parche</u>

Look up a company called Sequential Systems; it's taken over the manufacture and distribution of Chinook hard-disk drives, including the CT-50c (\$549) and CT-100c (\$729), which install to the drive port of your Apple IIc. Sequential's address is 1200 Diamond Circle, Lafayette, CO 80026, (800) 759-4549, (303) 666-4549.

One good source is **Charlie's AppleSeeds**, 9081 Hadley Place, San Diego, CA 92126, (619) 566-1297. The company is open from 7 a.m. to 9 p.m. Pacific time.

Sequential is currently the only manufacturer of an external IIc-compatible hard drive. The CT drive series is very good; its only drawback is speed, as the technicians had to slow the drive down to work reliably with the IIc drive port. By the way, should you decide to migrate to a IIGs or a Macintosh, Sequential Systems can reconfigure your drive to work from a SCSI port.

Some IIc owners may have to purchase a ROM upgrade to use a CT drive. Figuring out whether you need the upgrade is easy: If your IIc has an Apple memory-expansion card or runs a UniDisk 3.5, it can support a

Sequential drive. If you don't have either one and want to find out whether your Apple IIcis up to the task, turn off the machine and take all disks out of the drives. Then turn it on and wait for the Check Disk Drive message to appear.

Now press the key combination Control-Reset (hold down the control key and press Reset), and at thebracket prompt type PEEK(64447) <CR>. Your IIc will return a number. If it's 0, 3, or 4 (or 5 if you're using a IIc Plus), you're all set. If your IIc returns 255, you need to get a ROM upgrade, either from your local Apple dealer or from Sequential Systems.

Special thanks to David McKee and Chuck Newby for their help with this question.

ORCA OR APW?

I'M SHOPPING FOR A C COMPILER for my Apple IIGS. The only two I know of are APW C from APDA (Apple Programmers and Developers Association) and ORCA/C from Byte Works. Which do you recommend?

Michael Durisin Midland, MI

As far as I'm concerned, there's no contest—if you have a lot of C in your future, then go with ORCA/C. ORCA/C is ANSI compatible, while APW isn't.

"ANSI compatible" means that the language follows certain rules that are independent of your workstation platform — a IIGS, an IBM PC, or whatever. For instance, I do a lot of C work on my GS at home, my Mac at work, and Digital Equipment VAX systems at work.

your IIc has an Apple memory-expansion I have several C programs that work on all card or runs a UniDisk 3.5, it can support at my systems, because I took pains to work

strictly with ANSI C, leaving out any code specific to a particular system — the Toolbox for the IIGS, say. Writing in ANSI C makes incorporating changes to accommodate a particular system relatively painless.

À LA MS-DOS MODE

RE THERE ANY BOOKS AVAILable on the start-up and operation of Applied Engineering's PC Transporter card? The manual is okay for installation, but not for operation.

Russell Bennion Ridgecrest, CA

Once the PC Transporter card is up and running in MS-DOS mode, it's just like a fast CGA-quality IBM PC/XT Turbo, so unless you're looking for something esoteric, you should latch onto a primer on running that machine. There should be a selection available in any bookstore carrying computer-related and high-tech material. One book I recommend is Inside the IBM PC and PS/2, by Peter Norton (Brady Press, \$24.95). Thanks to John Pothier for his assistance with this question.

CUSTOM ICONS

T'M LOOKING FOR A RELIABLE, fast, and powerful icon editor that'll be compatible with GS/OS version 5.0.2, and later versions of this operating system, as well.

Robert C. Fiduccia Annapolis, MD

Either of two shareware packages should do the trick. **DicEd** is available for \$15 from Dave Lyons, who owns DAL Systems, P.O. Box 875, Cupertino, CA 95015-0875.

IconEd 1.3 is by Paul Elseth, 2739 Fairview Court Southeast, Rochester, MN 55901. You can order the program directly from him by mail for \$15.

Also see "Way Cool GS," January 1992, p. 36, for more information on these and similar programs. Thanks to Steve Bernacki and Jim Maricondo for their advice.

PROSEL'S UNDOING

PURCHASED A USED APPLE IIGS with a hard drive. When I boot the system, it comes up in a package called ProSel. I know it's a good program, but I'm more comfortable with the Finder, so I'd like to use that as my program launcher for now, and learn more about ProSel's operation later.

I know the disk also contains the Finder, because the ProSel menu shows a program you can use to switch to it. So how can I get my hard-disk drive to boot up in the GS Finder?

Anne Payton Wasco, CA

Look into the System folder on the hard disk. You'll see two filenames: START and OLD .START. Rename the START file START .PROSEL. Then rename the OLD.START file START.

Now boot your system and it'll come up under the Finder's control. If you decide later to activate ProSel again at boot time, just rename the START file OLD.START and the START .PROSEL file START.

IIC REPLACEMENT KEYS

NE OF THE KEYS ON MY APPLE IIc Plus keyboard has broken. What can I do? Can I replace it myself?

Kevin Eastman Gallipolis, OH

Call **Team Electronics**, 1051 Interstate Avenue, P.O. Box 1512, Bismarck, ND 58502, (701) 223-4546 for the parts.

Replacing a broken key isn't necessarily an easy task, but if you have some minimal mechanical ability and the desire to "pop the hood" of your Apple IIc Plus, it's certainly not impossible, either. Here goes:

- 1. If you do decide to perform the repair yourself, unsolder the key first with a solder vacuum.
- 2. Once unsoldered, you can remove the key by squeezing the ears (accessible from the top of the board) and pulling it out.
- 3. If the shaft is broken, there'll be nothing to grip, so press it out through from the bottom of the board.
- 4. Now insert your new key and resolder, and you'll be back in business.

Many thanks to Tom Carlton, Taylor Warren Lance, and Vern Mastel for their help with this question.

SAFETY FIRST

Y HARD DRIVE AND COMPUTER are connected to the same power strip. A friend of mine has his hard disk on one power strip and his computer on another. When is it safe to shut down the system?

Damon Ferguson Tuscaloosa, AL

Resetting or shutting down a system arbitrarily can damage disk data. Parts of disk files could still be cached in memory, or the system could be doing an automatic save when you decide to turn it off. Always shut it down in an orderly manner: For the IIe/c, it's CPU first, then drives and other equipment. For the GS and Mac, you may have to "park" the drive heads first, then turn off the system, although some drives park heads automatically. Check your drive's operation manual.

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. WE'LL TRY TO RESPOND IF YOU ENCLOSE AN SASE.

Now you see 'em, Now you don't.

You've seen them before, those unsightly "jaggies" that make your text look a little rough around the edges.

Well, it's time to clear things up. Introducing Pointless,™ a new font technology for the Apple IIGS.

With Pointless, letters displayed on the screen appear smooth, crisp and clear at even the largest point sizes.

What's more, Pointless improves printed output with almost any kind of printer, including the ImageWriter® and DeskJet,™ providing impressive laser-sharp text.

To make all this possible, Pointless uses
TrueType™ outline fonts, the new font standard
on the Macintosh and Windows. Now GS
users can share the benefits of this new
font technology.

A snap to install, Pointless works transparently with any GS program, including favorites like AppleWorks GS,® HyperStudio,™ Platinum Paint,™ and GraphicWriter III.™ Simply pull-down the Font menu and your TrueType fonts show up along with your other GS fonts. But unlike regular GS fonts, Pointless will instantly create any point size you need from a single TrueType font.

To help you design great-looking pages immediately, a variety of popular TrueType fonts are included with Pointless. And, to add even more style to your projects, pick up one of WestCode's Type Collections. Each library of fonts contains several outstanding typefaces.

Now that you've seen what Pointless™ can do, wouldn't it be pointless to use your GS without it?

Look for Pointless at your favorite software dealer. Only \$69.95. Or call us at 619-679-9200.



This ad's headline was created using Pointless™ (excluding the first line) and printed with a DeskJet.

Pointless requires an Apple IIGS with GS/OS 5.0 or later. Network/School Site licenses available. All brand and product names are trademarks of their respective companies, and you know who they are. © 1992 WestCode Software Inc., 15050 Avenue of Science, Suite 112, San Diego, California 92128 (619) 679-9200 • Fax (619) 451-0276.



BRIDGING THE GAP

LOOKING AHEAD

The Mac may be Apple's wave of the future, but sharing resources with the II will still be vital for a long time to come.

By GREGG KEIZER

FILE THIS UNDER "SAD BUT TRUE": Most bridges between the Apple II and the Macintosh start with the Mac, end with the Mac, and seem to include the Apple II only by coincidence.

Want to convert AppleWorks wordprocessing files to a format a Macintosh application understands? Then haul out DataViz's MacLinkPlus Translators 6.0, a Macintosh file-translation package that combined with Apple File Exchange puts Claris' XTND technology to work. Want to share files in a miniature network? Then run System 7 on the Macintosh. Want a portable computer for on-the-road or at-home work? Then consider a Macintosh PowerBook. You get the point.

Bridges of the future will rely on the Macintosh even more. That's because, like it or not, the Macintosh is the machine Apple's banking on to replace the Apple II in such crucial areas as the home and the classroom.

But the bridges you've been building

aren't going to disappear overnight. In fact, they'll be necessary as long as people continue to use Apple IIs and Macs together. Indeed, there are lots of ways to span the gap between the two machines, ways to share information and resources that we haven't yet explored.

In the months to come, you'll read about setting up your own in-school electronic bulletin board, how to turn Mac fonts into GS-compatible type, and how to share sounds between the Mac and IIGS. You'll see how GS/OS 6.0 builds bridges all on its own, and learn how to move your irreplaceable database from the II to your new Mac. To get ready for what's possible, now and down the line, consider building a solid, low-cost bridge that'll last.

LOW BID

What's the least-expensive bridge you can build between the Apple II and the Mac?

MAC FOCUS

Apple's long-term plans aren't exactly hard to decipher. Not when its last new Apple II was the GS, released nearly six years ago. Not when it keeps slashing prices of its entry-level Macintosh models. Not when its newest technologies début and remain on the Macintosh.

In fact, as the Macintosh gains ground in areas formerly reserved for the Apple II, the need for bridges will diminish. What use is a bridge when there's no gap? Two recent developments illustrate this trend toward burning bridges.

TALK'S CHEAP

In late February, at the "Technology, Entertainment and Design" conference in Monterey, California, Apple demonstrated a new voice-recognition technology that may prove revolutionary in, among other places, the classroom.

Using an off-the-shelf Macintosh — no special hardware required — this new technology gets the computer to respond to plain-English commands. Although it needs a 68040-equipped Mac (currently the fastest Mac processor, found in top-of-the-line models such as the Quadra 700 and 900), this speech-recognition software doesn't need to be "trained" to understand a specific voice, but comprehends anyone immediately. Relying on a vocabulary in the 100- to 300-word range, the voice-activated Macintosh carries out commands called normally by keystrokes or mouse and menu navigation, such as opening documents, changing type size in a word-processor file, and calling up a name from an electronic database.

Possibly years away from commercial application, this technology may show up in future Macs, or in the line of personal-information devices that Apple's expected to design and market with Sharp Electronics during this decade. These hand-held devices would serve as electronic notebooks or organizers, the "knowledge navigators" of Apple CEO John Sculley's dreams.

Voice-recognition technology already exists on the Mac, of course, and is particularly well suited as an aid to people with disabilities. But products such as Articulate Systems' Voice Navigator II demand special hardware add-ons, and must go through a training period before they understand someone's voice.

But because Apple's technology works on an as-is Macintosh, the opportunities in traditional education could be significant. Imagine a classroom two or three years from now, where children could tell their computers what to do. Preschoolers and early-elementary-aged kids, who may have trouble manipulating the mouse or finding and entering proper keyboard commands, would simply voice their choices and watch the Mac respond. They'd still write by pounding the keyboard, for instance, but they could format documents, skim a graphics library, select an image to import, and print by talking.

Or imagine a Math Blaster-like program that uses digitized speech to teach mathematics skills, and that accepts spoken answers such as "Two plus 12 equals 14." Or a Spellbound-style package (Spellbound, from The Learning Company, is a PC-

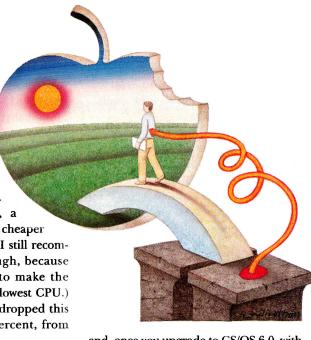
Assuming you already have an Apple IIe or IIGS, that's an easy question to answer.

The Macintosh Classic

II, packed with 4 megabytes of memory and a
40-megabyte hard-disk
drive, should be your choice.
(The Macintosh Classic, a
possible substitute, is \$200 cheaper
in a similar configuration; I still recommend the Classic II, though, because
Apple's quickly moving to make the
68030 microprocessor its slowest CPU.)
February price reductions dropped this
Classic II system by 27 percent, from
\$2049 to \$1699.

The Classic II runs System 7 comfortably; it can handle several open applications easily at once; and even though its monochrome monitor precludes splashy color, it's a workaday machine for personal, home-office, small-business, and school use.

If you have an Apple IIGs, consider buying an Apple StyleWriter ink-jet printer at the same time. Recently reduced to \$399, the StyleWriter is an excellent addition because it will work with both the Classic II



and, once you upgrade to GS/OS 6.0, with the IIGS, too. (System 6.0 will include a StyleWriter printer driver.)

Connect the Apple II and Classic II with two **PhoneNet** connectors from Farallon (\$19.95 each by mail). If you pick up the StyleWriter, you'll need another PhoneNet connector; if your Apple is a IIe, you'll also need a **Workstation Card**.

On the software side, buy **ClarisWorks**, the integrated package for the Macintosh. You're probably using AppleWorks or AppleWorks GS on the Apple II; Claris-

Works smooths the transition from Apple II to Macintosh. ClarisWorks costs around \$150 if you buy it by mail order.

At full list price, this brand-new bridge runs \$2300, but you should be able to push it below \$2000 by shopping several computer dealers. (Don't forget that discount computer stores such as Comp-USA and CompuAdd now sell Macs.)

A bridge like this should last you through 1994, minimum. Future enhancements to System 7 shouldn't make the 68030-equipped Classic II obsolete

before then. You'll also be able to take advantage of QuickTime as that Mac-only multimedia standard becomes common, and even link your bridge to a CD-ROM later. (See the accompanying sidebar for details.) Plenty of time to squeeze more value out of your Apple II.

MORE FOR YOUR MONEY

And what about color bridges? The Macintosh LC is one of the bedrock machines of Apple's renewed push into the home and classroom markets, and one of the strongest piers in any Apple II/Macintosh bridge.

At press time (late March), the new Macintosh LC II had just been released. Based

based spelling program) that not only pronounces the word in a spelling bee, but listens for the student to spell the word aloud, just as in the real thing. Technology like this isn't going to make it to the Apple II, not when it relies on powerful processors. It's another example of the Mac-is-it trend.

QUICK, WHAT'S THE TIME?

QuickTime is Apple's answer to the question "How do I make my computer more like my TV?" Slated to appear in System 7.1, the next version of the Mac's operating system, Quick-Time opens up the Mac to multimedia. Although future plans call for QuickTime animations, music, and still images, the first part of the enhancement features movies. Whether QuickTime displays 10 frames of video per second or 15 (the two most-bandied-about numbers) depends on the hardware it's running on. No matter what the speed, QuickTime movies put motion on a standard Mac; it's the first part of a multimedia environment of video, animation, sound, and images.

Multimedia is one of the hottest topics in the computer business these days, in large part fueled by lower CD-ROM drive prices and MPC (<u>Multimedia Personal Computer</u>), a standard for DOS machines based on Microsoft Windows. Multimedia educational and entertainment packages are starting to appear on the PC; Apple doesn't want to be left behind, and plans QuickTime as its response. An expected high-speed

3.5-inch CD-ROM drive from Apple may be another element in its multimedia game plan, if only because multimedia requires huge chunks of disk space, QuickTime's compression notwithstanding.

It's QuickTime's educational possibilities that make it worth watching. Several companies well known to inCider/A± readers are working on games and educational packages that will take advantage of QuickTime movies. Broderbund's **KidPix** will use QuickTime to replay animations. Davidson's **Headline Harry and the Great Paper Race** will use QuickTime to feature video snippets as clues in its cultural foray across America. (See "First Look," this issue, p. 15.) Scholastic's **Operation Frog** and Tom Snyder's **Flodd, the Bad Guy** are two more to-be-released Mac packages that will utilize QuickTime.

Though initial QuickTime educational software may not push multimedia hard, look for the next wave to dazzle both kids and adults. Imagine an American-history learning game that includes video clips from World War II and Vietnam, still images from the Civil War, animated maps of the Gold Rush and the building of the transcontinental railroad, and music from the Roaring '20s. Or a Frenchlanguage tutor that uses QuickTime to display video and voice of a disembodied electronic instructor, complete with Parisian accent. Or a space-exploration simulation that tosses in clips, from the launch of Sputnik to Neil Armstrong's first moonwalk.

QuickTime is yet another example of Apple technology that won't migrate down to the Apple II, another example of the vanishing need for bridges in the future. — $\mathbf{G.K.}$

on a 16-megahertz 68030 microprocessor (the same CPU found inside the Macintosh Classic II), this new machine replaces the current LC as Apple's lowcost color system.

The 030 CPU is the LC II's main claim to fame: It lets the machine take advantage of System 7.0's virtual-memory feature, which uses hard-disk-drive space as a substitute for RAM.

Other LC II details of note include more

memory (4 megabytes standard) and larger hard-disk drives (40- and 80-megabyte) than the original LC's offerings. Beefed-up memory and drives are two nods to real-world needs: 2 megabytes just doesn't cut it with System 7.0, and applications always seem to grow exponentially. (See "LC II: Ready for Prime Time," What's New in this issue, p. 12, for more on the new machine.)

LC II prices should be identical to

existing LC costs: \$1699 in a 4-megabyte RAM/40-megabyte hard-disk-drive configuration; \$1849 for the 4-megabyte RAM/80-megabyte hard-disk-drive system. (Prices don't include a monitor.)

LINK TO THE FUTURE

That the LC II exists at all is an important indicator: Apple clearly sees the home and school markets as Macintosh, Macintosh, Macintosh, and in its low-end configuration, the LC II is priced and equipped for those venues. The company clearly sees this entry-level color Macintosh as the inheritor of the Apple II's place at home and in school.

But the LC II isn't necessarily bad news for Bridging the Gap fans. Far from it: As one end of an Apple II/Macintosh connection, the faster, more RAM-packed LC II will serve as a larger and moreresponsive repository of shared files. Its color capabilities make it the pick for both home and classroom learning.

And by not casting off the Apple II Card (your authorized Apple dealer must simply upgrade it to work with the revamped processor-direct slot), the LC II guarantees at least as much acceptance among educators as the original LC.

WRITE TO CONTRIBUTING EDITOR GREGG KEIZER AT 4420 HILYARD STREET, EUGENE, OR 97405. ENCLOSE A SELF-ADDRESSED, STAMPED ENVELOPE IF YOU'D LIKE A PERSONAL REPLY.

The Sensational Lasers



Apple Ile/Ilc Compatible \$279



The Laser 128 features full Apple II compatibility with an internal disk drive, serial, parallel, modem, and mouse ports. When you're ready to expand your system, there's an external drive port and expansion slot. The Laser 128 includes COPY II PLUS software! Take advantage of this exceptional value today.....\$279

Super High Speed Option! only \$355

The LASER 128EX has all the features of the LASER 128, plus a triple speed processor and memory expansion to 1MB\$355.00

LASER PC-4 the Notebook Computer that has received rave reviews. Perfect for the classroom. Transfer software included w/ Serial and Parallel

MAC Version \$219.00 IBM Version New \$199.00

Save Money by Buying a Complete Package!

THE STAR LASER 128 Computer with 12" Monochrome Monitor and the LASER 192E Printer\$549.00

THE SUPERSTAR LASER 128 Computer with 14" RGB Color Monitor and the LASER 192E Printer\$649.00

7100200011120	
*12" Monochrome Monitor	\$109.00
*14"RGB Color Monitor	
*LASER 192E Printer - Epson New!	\$179.00
*LASER 192A Printer - Apple New!	\$199.00
*LASER 2424 Printer - 24Pin New!	\$289.00
*LASER 128 RAM Card OK	\$ 25.00
*Mouse	\$ 35.00
*Joystick (3) BUtton	.\$ 23.00
UDC Card	.\$ 39.00

USA MICRO

YOUR DIRECT SOURCE FOR APPLE AND IBM COMPATIBLE COMPUTERS



Phone Orders: 1-800-654-5426

8 - 5 Mountain Time · No Surcharge on Visa or Master Card Orders!
Customer Service 1-800-537-8596 · in Colorado (303) 938-9089
FAX Orders: 1-303-939-9839

Laser 128 is a registered trademark of Video Technology Computers. Inc. Apple. Apple IIe. Apple IIe. Apple III and Imagewriter are registered trademarks of Apple Computer. Inc.

PRODUCT INFORMATION

Apple IIe Card, \$199 Apple II Workstation Card, \$249 Macintosh Classic II, \$1699 Macintosh LC II, \$1699/\$1849 StyleWriter, \$399 Apple Computer Inc. 20525 Mariani Ave. Cupertino, CA 95014 (408) 996-0100

ClarisWorks

Claris Corp. P.O. Box 58168 5201 Patrick Henry Drive Santa Clara, CA 95052 (408) 727-8227 \$299 list

PhoneNet

Phonewer Farallon Computing 2000 Powell St. Emeryville, CA 94608 (510) 596-9100 \$59.95/connector box list

C.V. Technologies

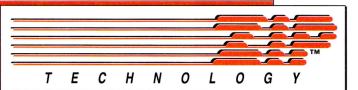
Ram FAST **SCSI V2.01**

This is the SCSI card that is upgradable to 1 Mb of cache. It is also the SCSI card that is 5 to 8 times faster than the Apple SCSI card under Pro-DOS 8 and twice as fast under GS/OS. It has an automatic lookahead for unbeaten performance. It has built-

in tape backup software that runs in the background. It has a mouse-driven configuration program. It has password protection, of course. By the way, it's also TOTALLY System 6.0 compatible. It's made by C.V. Technologies..



256K Rev. D V2.01 \$179.95 1 Mb Rev. D V2.01 \$239.95



ZipGSX

Imagine your IIGS running at up to 9 Mhz! Now realize it with Zip. Technologies' ZipGSX! Experience instantaneous recalculations & incredible performance from your word processors. Easy to install & operate. Needs no special boot-up. Address all memory. 16 variable speeds at the touch of a key. Fully DMA compatible.



9 MHz/32K Cache memory, **DMA Compatible** Now only \$238.95

7 MHz/8K Cache memory, **DMA Compatible** Now only \$138.95



8 Mhz Zip Chip II, II+, IIe or IIc Available now! ONLY \$138.95

30 DAY PERFORMANCE **GUARANTEE**

Full One Year Warranty on ZIPGSX & Zip Chip

GS Memory Board

This board is upgradable to 4 Mbs and fully DMA compatible up to 8 Mbs utilizing its piggyback connector.

0 Mb \$49.95 1 Mb \$89.95

2 Mb \$133.95

3 Mb \$177.95

4 Mb \$221.95

30 DAY PERFORMANCE **GUARANTEE**

Vulcan Gold Upgrade \$45.95

\$138.95

\$195.95

\$229.95

\$78.95

\$85.95

\$78.95

\$75,95

\$233.95

\$279.95

\$114.95

\$31.95

5.25" Drive He Compatible 800K 3.5" Drive 1.6 Mb 3.5" Drive

P.C. Transporter Power Supply IIe **GS Power Supply** TransWarp 32K

Upgrade Conserver DL Express w/ V.42

DL Express w/ V.42 \$290.95 & S-Fax \$58.95 SONIC BLASTER \$180.95 Trans Drive Single

Trans Drive Dual RamWorks III

256K \$128.95 • 512K \$145.95 • 1Mb \$174.95

Memory

256K chips (set of 8) \$16 1 Mb chips (set of 8) \$44 1 Mb SIMMs \$34.95 2 Mb SIMMs \$72.95 4 Mb SIMMs



SALVATION SUPREME

Deliverance/Renaissance \$43.95 Bakkup \$45.95 **QUICKIE SCANNER** \$194.95

HARMONIE PERFECT IMAGE

\$19.95 ImageWriter driver software for excellent GS/OS text & graphics.



POINTLESS \$47.95

INWORDS

\$76.95

IIGS Products From Seven Hills

Software

GRAPHICWRITER III™ \$85.95 Superior DTP with word processing, page layout and graphics in one complete package! Includes free clip art & font disks. "Our favorite DTP program for the GS..." inCider/A+ Requires 1 Mb

FONTFACTORY GS™ \$24.95 Resize & smooth fonts, create special symbols, improve print quality. ..clearly the Cadillac of the field." -inCider/A+ Requires 768K

SHOEBOXTM

Organize all your personal & household information in one easy to find location. Includes program! Requires 1.5 Mbs & hard disk.

FORMULATE™

Math Editor/Formula Typesetter. Easily create formulas for math & science tests, worksheets & papers. Works with any GS compatible printer. Requires 1 Mb

EXPRESS™

This is one every GS owner will want! Use your GS while you print. No more waiting on your printer. Multiple files can even be printed while you change programs. Works with AppleWorks GS, GraphicWriter III, Platinum Paint and all other GS/OS compatible software. Will print to any GS compatible printer that is directly connected to your GS! Requires hard disk

InSync

ProTERM 3.0

\$77.95

DreamWorld Software

DreamGrafix is the ONLY full-featured 16, 256 & 3200 color paint program for the Apple IIGS that allows users to create & edit the highest quality pictures. Suppors all known Super Hires graphics formats. Compatible with all system accelerators, CDAs, NDAs, inits & system drivers!



4 0 7 . 9 9 8 . 9 9 5 8 International

. 9 9 8

1120 Holland Drive, Suite 16 Boca Raton FL 33487-2729

Compuserve: 75300,2231 • AOL: TMS Periph







PROTERM 3.0

Take your on-line system to the max with the newest version of the foremost Apple II telecom program.

heap, fast, quality. Which two do you want?" This bit of conventional wisdom, or some variation on the theme, is posted in engineering labs everywhere. But if ProTerm 3.0 is any indication of the mood at InSync Software, conventional wisdom might have to go back for a refresher course—ProTerm 3.0 is cheap, fast, and quality. ProTerm is one of the longest-lived telecommunications programs for the Apple II and, with the current incarnation, has evolved into the most powerful.

InSync Software 3035 East Topaz Circle Phoenix, AZ 85028-4423 (602) 992-5515 sales (602) 992-9789 telecommunications program with scripting capabilities multiple file-transfer protocols, including ZModem and Kermit enhanced128K Apple lle, one disk drive includes 3.5- and 5.25-inch disks \$129.95

Version 3.0 comes complete with a well-written 271-page manual, 3.5- and 5.25-inch disks, quick-reference cards, and special offers for a number of on-line information services. From installation to downloading to macros, ProTerm 3.0 is a slick, complete, top-notch package.

EASY COME

Because of the variety of hardware available for the Apple II series, a telecommunications program has to be particularly versatile to accommodate all possible configurations. ProTerm 3.0 meets the challenge squarely by supporting a wide variety of hardware options.

The program guides you gently through choosing correct settings for your particular array of equipment, a blessing for the novice, but also allows direct access to a number of set-up preferences, a must for

the power user. For instance, even if you've never heard of a "modem-initialization string," ProTerm 3.0 will take care of it for you. But if you like to get your hands dirty, changing your modem-initialization string, or AT prefix, is as easy as calling up a dialog box.

A telecommunications program's user interface can determine how efficient and useful the software is. ProTerm's user interface is text based for high speed whether you run it on an Apple IIe, a IIc, or a IIcs. The screen is clean, simple, and sensibly laid out. Whether you use the mouse or operate strictly from the

keyboard, you'll have little problem finding your way around.

ProTerm's full-featured scrollback buffer and editor are just as easy to use, and provide essential assistance when you're logged onto a remote system. It's crucial to have a capture buffer to save incoming text and allow viewing of items that flew by too quickly to read.

Another important feature is a good integrated editor for composing messages or other text on or off line. ProTerm activates the scrollback buffer automatically

when it logs onto a remote terminal, and captures incoming text up to the limit of available memory; you can view captured text at any point during an on-line session, and select and transfer text blocks to the editor easily.

ProTerm's editor is reasonably comprehensive; it offers a clipboard, find and replace commands, and fairly complete formatting features, including embedded tab rulers, spacing and page settings, and justification. The editor supports dot commands - embedded formatting commands within text.

ProTerm's printer driver supports "generic" text models; I had no trouble printing to a Hewlett-Packard DeskJet, suggesting that the generic driver should work well with most printers. The editor supports both text and AppleWorks files.

EASY GO

Any telecommunications program must provide a number of transfer methods if it's going to be useful for uploading programs to, or downloading programs from, other computer systems. Today's most common file-transfer protocols send program data as "packets" followed by a sum of program bytes sent, or "checksum." When the second computer receives a packet, it does its own sum of program bytes and compares it to the broadcast checksum. If they don't match, it requests retransmission.

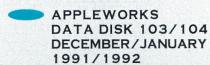
ProTerm supports the largest assortment of transfer protocols of any Apple II telecommunications program: XModem, XModem CRC, XModem 1K, XModem 4K, YModem, YModem G, YModem 4K, and ZModem. These transfer protocols support increasingly larger packet sizes and more-efficient error checking as well as other features resulting in faster and safer data transfer.

ZModem, the most advanced, even supports a feature called auto-resume: If an upload or download is interrupted owing to a bad telephone connection, the software will resume it at the exact point of the interruption. ProTerm also supports Kermit, an older and slower protocol commonly used by mainframe computer systems.

ProTerm also supports automatic Binary II coding and removal. Binary II, created by Gary B. Little, preserves ProDOS file information that would be lost during transfer. ProTerm produces a Binary II

APPLE II REPORT





Teachers' Idea & Information Exchange P.O. Box 6229 Lincoln, NE 68506 (402) 483-6987

- new AppleWorks templates and tips
- 128K Apple II
- requires AppleWorks (3.0 recommended)
- \$39.95 (6 double-sided floppies)

Take a pause that refreshes with an AppleWorks data disk from TI&IE. Each bimonthly, double-sided disk contains several word-processor, database, and spreadsheet files. Issue 103/104 features a calendar generator, math games, a strategy game for two players, ideas on using AppleWorks for fund-raising, and a clue sheet for Where in Time Is Carmen Sandiego?. In addition, you'll find a database of celebrity addresses, a desktop-publishing bibliography, plenty of AppleWorks tips, guidelines for keeping a monthly budget, a list of African-American inventors, and several more surprises.

COMBINATIONS

William K. Bradford Publishing Co. 310 School Street Acton, MA 01720 (800) 421-2009, (508) 263-6996

- new higher-math skills builder
- 64K Apple II

Combinations isn't a conventional game-driven math package with fancy graphics and wacky sound effects. This software is designed for youngsters who have completed a course in introductory algebra; it teaches them how to form the maximum number of combination sets from any given set of elements. Lessons consist of tutorials and practice sessions; help is available if needed. Several problems have practical applications. Unfortunately, kids must do their computations on paper, then enter answers on screen. An inexpensive math text (with an answer sheet) could probably do just as well - and for less money.

FRACTAL WORLD

Microgram Systems P.O. Box 252 La Honda, CA 94020-0252 (415) 747-0811

- new fractal-graphics generator
- 128K Apple II or GS with 128K RAM disk
- color monitor recommended
- \$9.95 Apple II, \$14.95 5.25" GS disk, \$19.95 3.5" GS disk

If you're looking for an inexpensive way to create and edit colorful non-Euclidean geometric shapes (which vary under different magnifications), consider Fractal World. This New Age creativity program finds and draws fractal pictures. Both Apple versions consist of four activities: find new fractals; put data on disk; colorize fractals; and display fractals. You construct intriguing pictures by manipulating color ranges, establishing new picture centers, and experimenting with magnification, not by painting with conventional electronic brushes. Fractal World is a program any ex-hippie will appreciate. Those of us living in the '90s, however, need more information on the general significance of fractals to keep us on the edge of our pixels.

GROUPWRITER

Sunburst Communications/ Wings for Learning 1600 Green Hills Road Scotts Valley, CA 95067-0002 (800) 321-7511, (408) 438-5502

- new on-line conference software
- 128K Apple II or 768K GS
- · requires AppleShare network
- \$300

GROUPwriter gives the phrase "have your people talk to my people" a whole new meaning. This application is designed to run on an AppleTalk network; it introduces students (grade 4 and up) to on-line conferencing, collaborative writing, and electronic group discussions. Participants may access and comment on as many as 50 active conference topics; program options let teachers determine the topic range. You can print on-line discussions or save them as files for editing with a word processor. If a Macintosh version of GROUPwriter is also installed, Apple IIs and Macs can talk to each other on the same network.

Continued on p. 28

REVIEWS

"wrapper" for a transmitted file and appends .BXY to the filename. ProTerm can remove Binary II coding automatically and restore a ProDOS filetype when a file is received.

One other point to keep in mind: Remote terminals (especially mainframes) often use different and outdated keyboard layouts, including function-key patterns, not supported by standard Apple keyboards. To utilize all a remote system's functions, your system must be able to use various key combinations to "emulate" it. ProTerm supports ANSI BBS, VT-52,

VT-100, H-19, ADM-3a/5, ProTerm Special Emulation, and Televideo 910+ terminals.

JUST EASY

The most powerful telecommunications programs include a scripting language to automate operations such as logging on,

APPLE II REPORT Cont. from p. 27



INFORMATION STATION

Society for Visual Education 1345 Diversey Parkway Chicago, IL 60614-1299 (800) 621-1900

- new research-skills builder
- 128K Apple II
- \$144

The Information Station Coordinator (ISC), the world's only orbiting source of environmental information, is in trouble - it needs repair to avoid shutdown and dismantling. Students prevent it from ending up as space junk by finding answers to research questions; in the process, they learn to use electronic information sources, including an atlas, an almanac, an encyclopedia, and a dictionary. ISC also teaches youngsters how to take notes, interpret a library catalogue card, and search for up-to-date source materials in a periodical index. Intermittent coded messages appear on screen to spice up the action. This package provides a great (albeit expensive) way for kids to learn critical research skills.



KID-LEIDOSCOPE VOLUME II

MindPlay/Methods and Solutions 3130 North Dodge Boulevard Tucson, AZ 85716 (800) 221-7911

- new language-skills games
- 48K Apple II
- \$79

Kid-Leidoscope II contains versions of four popular MindPlay programs:

Wordzzzearch, Tiffy Text, Race the Clock, and Ace Detective. These game-like activities develop environmental awareness while building vocabulary, memory skills, and knowledge of current events—but kids will enjoy them just because they're fun. They'll hunt for mystery words, create zany paragraphs with outof-context parts of speech, find hidden' pairs of words, and read for details. The package also includes a four-page newsletter covering ecological issues.

THE MOVING CRUST

Focus Media Inc. 839 Stewart Avenue Garden City, NY 11530 (800) 645-8989, (516) 794-8900

- new geology simulation
- 64K Apple II
- \$99

If you think The Moving Crust is a desktop sequel to Hollywood's Mystic Pizza, you're sadly mistaken. This interactive simulation presents a three-level course in the study of "plate tectonics": Youngsters take an electronic trip around the world, looking for proof that the earth's continents were once joined. Evidence may come from fossil distribution, rock formations, glacial striation, or the make-up of the ocean floor. This engaging simulation builds research skills and helps players learn about the dynamic nature of the earth's surface.

MUPPET LABS

Sunburst Communications/ Wings for Learning 1600 Green Hills Road Scotts Valley, CA 95067-0002 (800) 321-7511, (408) 438-5502

- new early-learning skills builder
- 128K Apple II
- Muppet Keys compatible
- \$65

Admit it — sometimes you watch Sesame Street just to catch up on the latest Muppet capers. With Sunburst's Muppet Labs, you can bring popular Muppet characters like Scooter, Miss Piggy, Fozzie Bear, and Bunsen into your life via your own small screen. When preschoolers and kindergarteners work through the program's charming activities, they build matching, classification, and memory skills, and strengthen their visual and auditory discrimination. One activity, called Math My Tone, will captivate even discerning adults. Muppet Labs comes with a well-written manual containing operating instructions. lesson plans, and black-line masters for several off-disk activities.

PERMUTATIONS

William K. Bradford Publishing Co. 310 School Street Acton, MA 01720 (800) 421-2009, (508) 263-6996

- new higher-math skills builder
- 64K Apple II
- \$60

This is another entry in the Bradford series <u>Special Topics in Mathematics</u>. Like Combinations (reviewed above), it's designed for students who have completed an initial algebra course. Youngsters learn to work with factorial notation, then to recognize and solve problems involving permutations. Every lesson contains tutorial and practice sessions, with on-line help available. Permutations requires that youngsters compute answers off line; nevertheless, it's more successful than Combinations because it does a better job of explaining subject relevance to everyday life.



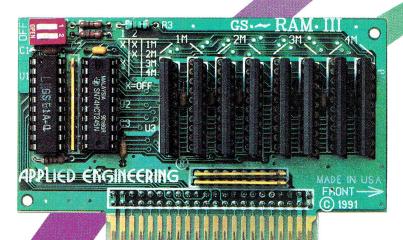
READABLE CLASSIC TALES

Orange Cherry Software Box 390 Westchester Avenue Pound Ridge, NY 10576 (800) 672-6002

- new
- 512K Apple IIGS
- hard disk recommended
- \$49 home edition

Readable Classic Tales brings five popular stories to the GS screen: The Elves & the Shoemaker, Puss in Boots, The Queen Bee, The Frog Prince, and Rumpelstiltskin. Each tale features glorious sounds and terrific animated graphics. A screen appears with text and graphics, plus click-on icons letting readers animate the scene, raise the volume, turn an electronic page forward or backward, or quit the program. Level of interaction is a bit limited, but the package does very well as "lapware" — software that encourages adults and preschoolers to have fun working together in front of a computer - Carol S. Holzberg, Ph.D. screen.

It took 250,000 people to bring you GS-RAM III



Does your memory board do all this?

- Compatible with all standard GS hardware and software
- ✓ Expandable to 6 Megabytes
- ✓ Uses new 1Mb X 4 Chips
- ✓ Accepts 3Mb as valid configuration
- ✓ Low power design
- ✓ Runs cool
- ✓ Compact. efficient design leaves plenty of room for slot 7 cards
- Fully DMA compatible
- ✓ No jumpers
- ✓ Super Hi-Res diagnostic software included
- Socketed components for easy upgrade
- Includes AppleWorks 3.0 print buffer & multi-disk save features
- Made in USA

In the last 12 years over 250,000 Apple owners have chosen an Applied Engineering memory board to upgrade their system. We've applied our experience and engineering expertise to create the perfect memory board, GS-RAM III. Because of its compact, efficient design, GS-RAM III easily outperforms all other memory boards. It uses the new 1Mb X 4 chips which draw less power than other memory chips or SIMMS. Because the board uses less power, it generates less heat, helping to prevent heat related failures on all of your expansion boards.

Of course GS-RAM III is fully compatible with all standard software and hardware, including DMA devices. It includes our powerfui AppleWorks 3.0 expander and diagnostic software. And because we pay attention to detail, GS-RAM III has no jumpers or soldered chips. Socketed

components allow for easier upgrades and trouble-shooting.

So if you want more memory for DA's, RAM drives, AppleWorks, AppleWorks GS, HyperCard GS, Platinum Paint, Sonic Blaster or any other program, GS-RAM III is the obvious choice. Join the quarter of a million satisfied Applied Engineering memory board owners. Beam into the next generation of memory boards with GS-RAM III.

To place an order or for more information, see your authorized Æ dealer or call (214) 241-6060 today. Or send check or money order to Applied Engineering. MasterCard, Visa and C.O.D. welcomed. Texas residents add applicable sales tax.

GS-RAM III 1Mb	.\$199
GS-RAM III 2Mb	\$299
GS-RAM III 3Mb	\$399
GS-RAM III 4Mb	.\$499
Special GS-RAM III Trade-In.	\$139

TRADE-IN

Trade-In any manufacturers GS memory board of any size and get a GS-RAM III 2Mb for only \$139! Call (214) 241-6060 for details.



APPLIED ENGINEERING®

The Apple enhancement experts. A Division of Æ Research Corporation

(214) 241-6060 FAX: (214) 484-1365

3210 Beltline Dallas, TX 75234



©1992. Æ Research, Inc. All rights reserved. Brand and product names are registered trademarks of their respective bolders All specifications, terms and services are subject to change without notice or recourse.



Circle 231 on Reader Service Card.

REVIEWS

transferring files, and navigating through remote systems. ProTerm 3.0 is no exception, offering a complete and powerful macro language and an "autolearn" feature that means you may never have to write a line of macro code. When set to *AutoLearn*, ProTerm 3.0 will record your keystrokes as you log on or perform a task on line. Writing a custom script to automate access to the Apple II library on my favorite BBS, for instance, was easy.

ProTerm 3.0 adds a number of little extras that make a good telecommunications program great: disk utilities such as formatting, file duplication, locking and unlocking, copying, file viewing by traditional methods and by foreign terminal emulation, printing, renaming, setting filetypes, and creating directories. ProTerm 3.0 also includes a "snapshot" feature, available anywhere within the program, that sends a copy of your current screen to your printer. The program sports a nifty timed screen saver and supports unattended operation (autoanswer), letting your computer act like a bulletin board. A remote user can call your machine, get connected, and begin transferring files — easy.

ProTerm 3.0 is a powerful telecommunications program that can take your on-line Apple II to the max. It's rock-solid; it took everything we threw at it in stride, including GEnie automated log-ons and file transfers, as well as log-ons and transfers to local BBSes. ProTerm 3.0 solves most of the problems of the program's earlier versions and adds most of the enhancements users have been looking for.

One or two suggestions come to mind. The scrollback buffer should be more fully integrated with the main ProTerm screen, for one thing; currently, accessing the scrollback buffer is a separate operation. InSync should also remove the editor's memory limits and allow dynamic resizing of both the scrollback buffer and the editor to available memory.

The Apple II is a capable telecommunications platform, and ProTerm 3.0 underscores that. If you're serious about telecommunications, try ProTerm 3.0. It'll give you the features you need without making you pay the price.

Garry Howard Calgary, Alberta, Canada



magine traveling back to the 16th century, to a time when Europe's great colonial powers sailed the high seas in search of wealth and glory. Gold of the Americas, a Strategic Studies Group (SSG) historical simulation (recently ported over from MS-DOS to the IIGS), re-creates this exciting period with all the pomp, splendor, and ruthless political intrigue of a spectacular Hollywood movie.

Action begins in 1501. Would-be colonizers command magnificent expeditions under the flags of Spain, Portugal, England, or France against computer opponents (set to novice, normal, or expert level), or against up to three human challengers. Victory goes to whoever occupies the most territory by game's end. You have 300 years (30 turns) to establish colonial supremacy and plunder the riches of your newfound dominion.

The life of a colonial explorer isn't easy. Expeditions perish on stormy seas; colonies succumb to mutinous revolts, attacks by inhospitable natives, and the ravages of disease; swashbuckling privateers pillage your trading ships; rival explorers raid your fledgling territories and seize your hard-earned acquisitions. If these disasters don't carry you to the brink of financial ruin, the tax collector will —

unless you're smart enough to squirrel away your riches in a private fund the king's emissary can't find.

LET HISTORY RUN ITS COURSE

As with all good electronic simulations, Gold of the Americas is a game with many variables. Players decide whether action follows historical or random scenarios.

For historical games, activities remain true (more or less) to real events. In random games, players chart their own colonial destinies. The real action begins after challengers determine which colonial power to represent. They must raise armies, recruit colonists, and stake a claim to various provinces in North, Central, and South America.

Every turn represents a decade, and each decade consists of four distinct phases: Acquisitions, Placement, Colony Management, and Reports. Every phase requires you to perform a range of tasks, from raising an army and equipping warships to staging raids on enemy settlements, recruiting colonists, and exploiting the locals by forcing them to overproduce.

When other players (or the computer) take turns, there's always a shift in the balance of power. Rival colonies are established, a diabolical European power may declare war on your peaceful nation, some of your trading vessels may fall prey to the greedy exploits of merciless pirates, and everything costs money.

Reports keep you advised of your trading returns, political and economic conditions in your colonies, and the current status of your treasury. At the end of every historical period, a tax collector appears, requesting a healthy "donation" to the king's treasury. It doesn't do any good to protest.

Gold of the Americas is simple to play, but difficult to win. Just when you least expect it, you lose a territory to a national liberation movement. Enemy raids end in disaster, colonies disappear because settler populations dwindle, and expeditions in search of new territories fail.

Your privateers may be incapable of returning any money; they may even loot one of your own traders. Slaves revolt, garrisons lose troops, and your miners exhaust a territory's ore deposits. Don't despair — events may turn in your favor.

A lot of territory changes hands in the last five rounds of play.

HARDWARE CONFLICT

Gold of the Americas is an entertaining simulation. The program features great GS graphics and a user-friendly interface, but meager sound effects. It ships with a user's guide that provides detailed play instructions; a brief tutorial helps get you started. GS owners will discover quickly that descriptions in the manual don't always reflect GS screen displays or keyboard activity.

Be sure to print a copy of the *ReadMe* file to learn how to move resources (icons) around on screen. Even with the file, it took me some time to figure out that you must issue a command to end a particular phase before the program lets you continue.

While Gold of the Americas isn't copyprotected, it won't necessarily run from a hard disk. It may be hard-disk compatible with an Apple SCSI card, but not with a RamFast SCSI card.

If you start up your computer from a *System* folder installed on a RamFast-driven hard disk and then try to run Gold of the Americas by double-clicking on its program icon (*Gold.Americas*), a dialog box appears, asking you to place MidiSynth (sound tool 035) into the *Tools* folder within the *System* folder. If you do that and reboot, you hear clanging and the program crashes. If you boot directly from floppies, Gold of the Americas runs with no problem.

THE GOLDEN AGE OF DESKTOP ENTERTAINMENT

The philosopher George Santayana once remarked that those who can't remember the past are condemned to repeat it. SSG, on the other hand, claims that those who don't understand history should be given a chance to rewrite it. In a 300-year power play for control of the New World, Gold of the Americas bestows the spoils on the player with the most-aggressive colonial policy.

If ruthless exploitation, callous bully-boy armies, and shameless privateering on the high seas do not your good fortune make, then you lack what it takes to shape the destiny of the New World. Keep at it, though. Practice makes the perfect despot. Carol S. Holzberg, Ph.D.

Shutesbury, MA

Continued on p. 54

PDE—Your One-Stop Software Shop For The Apple II/IIGS

APPLE IIGS 3½" DISKS Print Shop™ IIGS Graphics – PDE Exclusives!

☐ GS300 60 color Fairytale graphics for kids (REQ. PRINT SHOP)
Games/Entertainment
☐ GS221,GS222 Cosmocade—blow away aliens in the jungle and in space, along with music, joystick (2 pisk s∈n (swn) \$18 ☐ GS233 Columns—Addictive puzzle arcade w/music \$9
GS242 Explorer Adventure Disk: Over 20 adventures, plus many characters (Requires GS288 to use)
GS248 Star Trek Classic with great sound/graphics \$9
☐ GS252 Loderunner.GS—collect prizes, avoid monsters! \$9 ☐ GS271 Milestones 2000—Addictive car game (RELIEFWARE) . \$9
GS287 Dr. Mario—Kill viruses in Tetris™ style game \$\$ GS288 Explorer: Enter world of adventure and magic (sw₁) \$9
☐ GS306 MegaMacMunch: Crunch the Macs, with stereo \$9 ☐ GS312 the prisoner—disk of digitized sounds. (REO. SYS 504) \$9
□ NEW GS317 Sensei: action karate w/awesome graphics/sound \$9 □ NEW GS318 MahJongg: ancient Oriental puzzle—additive \$9
NEW GS319 Luv: test your compatibility w / your mate, graphics\$\$ □ NEW GS320,GS321 Mean 18™ Golf Courses: the famous Myrtle Beach area courses. (REQ. MEAN 18™ TO USE) (2 DISK SET)\$18
Communications
☐ GS307 MegaTerm: Color ANSI emulation! (REC. MODEM) \$9 ☐ GS308 ColorTerm: Desktop ANSI emulator (REC. SYS 5.0.4) \$9 Adult Graphics
GS255,GS256 Foxy Ladies—40+ 3200-clr pics. (2 DISKS) \$18 GS257,GS258 Lacey Ladies—40+ 3200-clr pics. (2 DISKS)\$18 NEW GS309,GS310 Gaze at 40 lovely ladies (2 DISK SET)\$18
APPLE II 51/4" DISKS
Apple II Print Shop™ Graphics
☐ 1018,1019 Full-panel graphics for cards. (2 DISK SET) \$10 ☐ 1020 Fairytale graphics for kids! \$5 ☐ 1021 Borders for holiday cards and desktop publishing . \$5 Education – PDE Exclusives!
☐ NEW 1071 Vocabulary Quiz—3 levels, (REC. ENHANCED II)\$5 ☐ NEW 1072 World Geog. Quiz—Incl. U.S. (REC. ENHANCED II)\$5 ☐ NEW 1073 Synonym Quiz—challenging! (REC. ENHANCED II)\$5 ☐ NEW 1074 Famous Literature Quiz (REC. ENHANCED II)\$5
Games
☐ 127 Defender—rescue the astronauts from vicious aliens!\$5 ☐ 814 Monopoly: The popular board game\$5 ☐ 974 Flobynoid—great Arkanoid [™] type game, more. (sw ₁)\$5 ☐ 976.977 World of Pinball—14 games (sw ₁) (2 pisks)\$10

Adult Graphics ☐ 1040,1041 Western Girls—Fill your screen w/beauty! (2 DISKS)\$10 ☐ 1042,1043 Sun Beauties—to tan-talize you! (2 DISK) \$10 ☐ NEW 1064,1065 Girls! Girls! Over 24 poses. (2 DISK SET) \$10 ☐ NEW 1066,1067 Summer Girls! Over 24 beauties (2 DISK SET)\$10

1005 Berzap!-Fight robots & escape from maze (swt) . \$5

1006 Columns—Dbl-hires 128K puzzle arcade \$5

Telecommunications/Utilities

	1002	Agate	ANSI	moden	n prog	ram	with	Zm	odem	١		\$5
	NEW	1035	Snee	ze: pro	gram I	auno	cher,	file	copie	r, more		\$5
† T	he auth	or reques	sts a sp	ecified do	onation	if you	decid	e to	use th	e progran	1.	

SPECIAL!
Any 6 disks
(IlGs disks may be included)
plus 1 Yr. Membership
Only \$3995

(plus \$4.50 s/h)

Complete directories of software
 Apple II directory describing
 1000's of programs, OR
 Apple IIss directory describing over 2000 programs

 Members only discounts!

One Yr Membership (\$20 value):

Members-only discounts!
 Plus 6 Disks of your choice (ONLY \$3.33 each!—only as part of this special)

Add \$4.50 US / \$5 Canada / \$15 for CA orders add sales tax. If orderin Apple II Membership	ig a 6 disk Special, please check 1 bo
Enclosed \$ t	y Check DVISA DMC
Card No	Exp
Name	
Address	
City	State Zip
In California 408-496-0624	

ORDER TOLL FREE 800-331-8125



Sequential Systems

Apple Ile 80 column card

Memory Expansion Kits
1Meg 80ns for GS RAM III \$59
1Meg 80/100ns set (8) \$45

1Meg 80ns SIMMs

256K 100ns set (8)

256Kx4 100ns set (2)

RAM IIe

RAM IIc



At LRO Computer Sales we constantly strive to provide you with High Quality Service, and reliable, innovative products at the very best prices. With LRO you pay **NO** surcharges for credit card purchases, we do **NOT** charge a restocking fee and our Technical Support is **FREE**.

MEMORY & EXPANSION APPLE IIGS EXPANSION Applied Engineering 1MB\$139 2MB\$189 4MB\$285 1MB\$179 2MB\$229 4MB\$309 6MB\$389 Æ GS-RAM III Æ GS-RAM Plus Æ GS-RAM Ultra Harris Labs GS-Sauce SIMM card1MB\$129 2MB\$179 4MB\$259 Sequential Systems **CV-Technologies RAM GS Expander** 1MB\$89 2MB\$133 3MB\$177 4MB\$219 The CV-Tech memory expansion board allows you to piggy-back your existing 1 or 4 megabyte RAM card in addition to the capacity of the CV-Tech RAM card itself, for a total expansion up to 8 megabytes. NOTE: GS-RAM and GS-RAM Plus NOT compatible! APPLE IIE/IIC/IIC+ Applied Engineering Æ RAMWorks III \$145 512K\$229 1MB\$309 Æ Z-RAM Ultra III 256K\$179 1MB\$215 Æ RAM Express II 256K\$125 512K\$170

DISK DRIVES	
Æ 3.5 Drive 800K IIe/II+/IIss	\$187
Æ 1.44 Meg Mac Hi-Density	\$229
Æ 1.6 Meg GS Hi-Density	\$229
Æ 5.25" Disk Drive Mac LC/Apple II	\$149
Æ Universal Disk Controller	\$59
AMR 5.25" Daisy-Chain Drive Mac LC/Apple II	\$109
NEW!!Apple SuperDrive 1.44/800K Interface	\$ 139

SOFTWARE

NEW!!

Apple GS/OS System 6.0 Package w/documentation \$39 !!!

The latest version of the GS/OS operating system is better than ever. Now you can read/write Mac HFS disks, forget about the old system 'beep' because you can have multiple system sounds, new fonts, new faster Stylewriter driver, a more efficient interface and MUCH MORE! 2 megabytes of RAM minimum recommended, 2 3.5 driver or 1 3.5 drive and a hard drive.

NEW! HyperCard GS v1.1 w/new MIDISynth Music Buil	ider \$69
HyperStudio v3.0 Roger Wagner Publishing	\$98
Mavis Beacon Teaches Typing Electronic Arts	\$31
MCX HoverBlade GS	\$29
Orca Pascal Learn package	\$119
Orca/C Learn package	\$119
GS-Numerics Spring Branch Software	\$88
Mac-Numerics Spring Branch Software	\$129
SSSi-Genesis GS Resource Editor	\$79
Salvation Supreme by Vitesse, Inc.	\$95
Inwords OCR by Westcode	\$77
Pointless GS by Westcode	\$79
Publish It 4 by Timeworks	\$75
Publish It 3 by Timeworks	\$37.95
Graphic Writer III Seven Hills Software	\$85
Express Print Print Spooler for the GS. The print spooler allows you to work while you print v applications like AWGS, Graphic Writer III, Paintwork	

etc... Retain your productivity while you print!

CALL FOR
Applied Engineering, Daystar, Microtek
and other Apple II and Macintosh Products

256K**\$129**

256K\$179

\$39

\$14

Imagebuffer 32/64K-Imagewriter II buffer

512K\$145

512K\$229

1MB**\$175** 1MB**\$309**

\$49.95

\$279
\$197
\$269
\$77
\$58.95!
\$69
SCALL!

PC-TRANSPORTER CORNER	
Æ PC Transporter	\$229
Æ PCT-GS Kit \$35 Æ PCT-Ile Kit	\$29
Æ Transdrive 5.25	\$189
Æ Transdrive Dual 5.25	\$289
Æ Dual Transdrive 3.5 & 5.25	\$285
Æ Transdrive 3.5 add-on	\$89
PCT 101 extended keyboard	\$78.95
Click-Tactile extended ADB keyboard GS	\$99

SCHOOL & UNIVERSITY P.O.'S WELCOME!

NocSurcharge for VISAMC and Discover. Standard shipping charges for VISA Ground Priority Wail 3%, minimum \$4.5. No COD surcharge on orders over \$300, under \$300 add \$4. Call for additional charges for Air and International shipments. Illinois residents add 6.5% sates tax. No sates tax for out of state purchases. All hardware may be returned within 30 days of receipt with no restocking fee (must have RIMA#). Shipping charges vary. Prices and availability subject to change without notice. So There!

DON'T BE LEFT IN THE SHADOW TRUST THE REAL THING!



COMPUTER SALES (800) 869-9152









CELEBRATE THE ONE-YEAR ANNIVERSARY OF OUR NCS PRO DRIVES WITH GREAT SAVINGS FOR YOU!

All of our NCS-Pro Drives are housed in a sturdy custom platinum ABS case with dual SCSI ports, dual power ports and a power switch. The drive receives power from your floppy port, or use the optional external power supply. All mechanisms are high quality Conner or Quantum VCA drives for maximum reliability.

NCS	Pro	52Q	 	\$289
NCS	Pro	80	 	\$379
				\$459
				\$689
				425Q

NCS Pro 80 NCS Pro 100 SPECIAL!! \$409 NCS Pro 1200 \$499 **NCS Pro 240Q** \$1,229

NOTE: 'Q' suffix denotes use of Quantum VCA mechanisms. All other drives use high quality Conner mechanisms.

SCSI CARDS

Supra 2400 external

ProTERM 3.0

Datalink 2400 internal

Annle High-Speed DMA SCSI card

without purchase\$104 with purchase	\$ 99
RAMFast GS SCSI card w/256K without purchase\$169 with purchase	\$165
RAMFast GS SCSI card w/1MB without purchase\$239 with purchase	\$229
COMPUTERS & ACCESSOF	
Apple IIGS ROM 3 CPU/Kbd/Mouse	\$779
Macintosh LC II 4/40 System w/color monitor	\$1,699
Æ Conserver GS 40 & 100 drives	
Kensington ADB Trackball	
Click-Tactile ADB Extended Keyboard	
A+ Optical Mouse (specify computer).	
Apple IIgs Heavy Duty 7 Amp Power Supply	
Apple IIe Heavy Duty Power Supply	
Macintosh LC Heavy Duty Power Supply	
TELECOMMUNICATIONS	
ZOOM 2400 external \$95 ZOOM 2400/Ready	link/cable \$125

\$99

\$159

\$79

Datalink Express II w/v.42bis/GS SendFAX/Readvlink

Datalink Express II w/v.42bis/GS SendFAX

Æ VULCAN GOLD INTERNAL DRI 40 Meg internal IIe/II+/IIGS-specify 100 Meg internal IIe/II+/IIGS-specify	VES \$ 57 \$ 96
Vulcan Gold upgrade for 40 & 100 drives	\$ 46
Æ TRANSWARP Transwarp GS Transwarp GS w/32K cache Transwarp 32K cache upgrade Transwarp lle/ll+	\$21 \$28 \$ 7 \$ 8
ZIP Model 8/16	\$239 \$179 \$147
PRINTERS Imagewriter II Color printer w/32K buffer Apple Stylewriter w/accessory kit/cables hp Deskjet 500 hp Deskwriter	\$45 \$38 \$47 \$45

Panasonic 1123 24-pin printer

SuperCom Modem/Printer \$79 Sequential Q-Print

\$49 Æ Parallel Pro

Serial Printer I/F

\$129

\$199

\$349

\$379

\$58.95

Supra 2400/Readylink/cable

Datalink 2400/Readylink

Æ Readvlink

\$ 579

\$ 969 \$ 46.95

> \$215 \$285 \$ 79 \$ 89

\$239.95 \$179.95 \$147.95

> \$459 \$389 \$479

\$459

\$239

\$77

TOTALLY BAD MA

It may be hip to be square if you're Huey Lewis & the News, but it's a death wish for any respectable Mac user.

Truth is, Macs just wanna be cool

By OWEN W. LINZMAYER

t seems that no matter where they hail from, no matter what they do for a living, Mac users aren't content with just owning some computer that's friendlier and classier than a PC. Nope, they gotta be cooler than their fellow Mac heads. Luckily, it's easy to customize the Mac's operation to reflect your unique style and express your individuality. So, owing to a mind-blowing response to my "Way Cool Mac" feature (January 1992, p. 30), once again I've combed through the best user-group libraries, on-line databases, and commercial offerings in search of neat programs and products that fit one strict requirement: They have absolutely no redeeming value other than the totally radical coolness they bestow on Macs and their owners.

Illustration • Ned Shaw Photography • Ed Judice



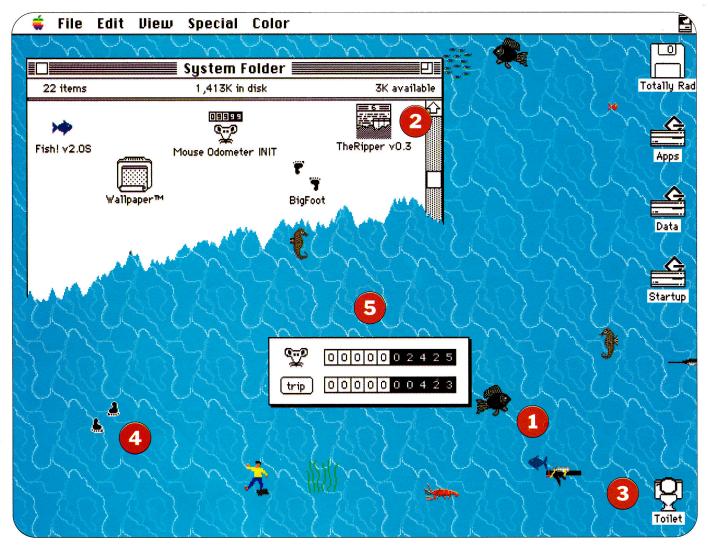


Figure 1. Macs just wanna be cool

- 1. Wallpaper's empty-pool pattern provides an appropriate backdrop for Fish!'s sea creatures.
- 2. The Ripper "tears up" your document to the sound of shredding paper.
- 3. Toilet replaces the Trash icon and offers appropriate metaphors for Trash-related items as well as a digitized flushing sound.
- 4. BigFoot places a pair of animated wandering feet on your desktop.
- Mouse Odometer keeps track of the total distance (in miles) your cursor has covered, plus the distance it's traveled since the last time you started your Mac.

MINDLESS MONITORS

In "Way Cool Mac" I introduced you to **After Dark**, perhaps today's most popular "utility" (and, believe me, I use that term *very* loosely).

Basically, after a user-specified period of inactivity, this screen saver kicks into action, displaying fireworks, flying toasters, personalized messages, kaleidoscopes, bouncing logos, and so on, until you press a key or move the mouse. The animations are supposed to prevent static images from burning into the phosphors on your monitor, but After Dark is really just for showing off.

The original After Dark comes chock full of modules, but to meet the insatiable demand, Berkeley Systems has released **More After Dark**, with 26 new and exciting add-on modules.

FINDER FOLLIES

Taking out the trash is a drag, whether it's in real life or on the Mac. But not with Toilet, a freeware offering by Michael J. Fisher. Use ResEdit (a utility available from Apple Computer and Addison-Wesley Publishing) to replace the Finder's Trash icon with that of a working toilet (Figure 1). The icon, name, and any menu items related to Trash are all updated with appropriate commode metaphors. A gurgling digitized flush is also included for those of you with utilities — such as ClickChange or SoundMaster — that trigger sound effects upon certain Finder

operations. (As of this writing, Toilet doesn't work under System 7.)

Wallpaper is a commercial control panel (sometimes called control-panel device, or cdev) from Thought I Could. It's billed as "an interior decorator" for the Finder's desktop, letting you display large desktop patterns in up to 256 colors (Figure 1). Normally, Apple's General control panel limits you to patterns no larger than eight pixels (picture elements, or dots) on a side, but with Wallpaper you can use patterns up to 128 pixels square, allowing for much more intricate repeating designs. Wallpaper comes with hundreds of beautiful predefined patterns, and you can edit them or create your own. Furthermore, Thought I Could is running a contest for original designs and plans to offer the submitted patterns on a subscription basis.

DeskPat is a freeware desk accessory (DA) similar to Wallpaper. Written by Roy M. Lovejoy III, DeskPat allows patterns in up to 16 million colors (24-bit). Unlike Wallpaper, DeskPat comes with very few sample patterns, nor does it include a pattern editor. You can create new patterns in other graphics applications, however, and paste PICT images into DeskPat.

ColorDesk, a control panel written by Paul Mercer, is included in Microseeds' Screen Gems package. It allows Mac II computers to display complete pictures on the desktop, instead of the Finder's relatively boring repetitive patterns (Figure 2). Even if you have multiple monitors, ColorDesk can display only a single PICT image containing up to 256 colors.

In comparison, the **DeskPicture** module of Now Software's **Now Utilities** package is similar in function, but supports 32-bit graphics and multiple monitors. Nonetheless, you may be interested in the other programs in the Screen Gems package, including **Dimmer** (a screen saver), **Switcha-Roo** (a function key for switching between monitor settings), and **TN-3** (an application for changing the Finder's *Color* menu).

Globe is another silly application by Paul Mercer included in Microseeds' Screen Gems. (It's also available in the public domain.) Basically, all it does is place a spinning planet Earth on the desktop (Figure 2). Earth is one inch in diameter and beautifully rendered in color with appropriate shading. Under MultiFinder or System 7, Globe can run while you're using other applications, so you can set it spinning on top of the *Trash*, for example, while you're busy writing a memo.

Eyeballs and BigFoot are two system extensions (INITs) written by Ben Haller (of Solarian II fame) and distributed free under the name Critters. You know how every mystery movie set in a spooky mansion has that one portrait whose eyes follow your every move? Eyeballs places a pair of peepers in the menu bar, and they follow your cursor around wherever it goes (Figure 2). With BigFoot, on the other hand (Figure 1), a pair of feet walk randomly around your desktop. (I told you this stuff was stupid.)

If BigFoot doesn't tickle your tootsies, maybe Fish! will float your boat. Fish! is a shareware program that turns the Finder's desktop into an animated aquarium. Assorted sea creatures swim behind application windows while you work, and fill the screen during periods of inactivity (Figure 1). You can adjust the behavior of underwater denizens via a control panel. If you register your copy of Fish!, you'll be able to edit existing fish and create your own species.

Andrew McGeachie's **Shutdown Slide** and **Shutdown Fade** are freeware system extensions that add a little pizzazz to the mundane task of turning off your Mac. Instead of the screen simply going blank when you choose *Shut Down* from the Finder's *Special* menu, Shutdown Slide causes the left half to slide down and the right half to slide up. Likewise, with Shutdown Fade, the screen fades slowly to black. With both extensions, when the screen is clear, the shut-down procedure finishes normally.

SILLY SOUNDS

Unauthorized Star Trek sound effects have long been popular downloads on bulletin boards, but Sound Source Unlimited recently received an exclusive license to distribute samples from the classic television series. Each Star Trek Soundware volume contains two 800K disks stuffed with 50 sound effects and a copy of SoundMaster, a control panel that plays sounds when certain events — such as emptying the Trash or ejecting a disk — occur on the Mac (Figure 2).

Unlike the low-quality recordings available previously, these authorized sound effects were recorded digitally from the original soundtrack masters, then saved as data files for playback on the Mac. You can use these files with any application capable of playing 8-bit SoundEdit files. Sound Source Unlimited currently offers only two volumes of Star Trek Soundware, but the company plans to license sound effects from other popular movies, so keep your ears open.

Remember the hilarious scene in When Harry Met Sally in which Meg Ryan embarrasses Billy Crystal by faking sexual climax in a restaurant? Well, Frank Price and Mark Weaver digitized that sound bite

and hacked it into a free system extension named, appropriately enough, **Power-Orgasm**. Sorry, gang, this one's for mobile Mac users only: Whenever you plug in a power adapter, your PowerBook starts moaning and groaning in ecstasy. If you're going to be using your PowerBook in public, though, you can change the sound to something a little more prudish with ResEdit.

Talking Moose is a commercial control panel written by Steve Halls and marketed by Baseline Publishing. With Talking Moose in your *System* folder, during periods of inactivity animated characters pop up on screen and blurt out wisecracks and insults before disappearing (Figure 2). Not only do they interrupt your daydreams with their blathering, these cartoon characters also call out your menu choices and read alert-box messages, too. It's like having your own annoying little cheering section inside your Mac.

With the utility provided, you can add new sayings or change the way Talking Moose interacts with individual applica-

ORDER INFORMATION

To receive a copy of either inCider/A+ disk, send a check or money order (no purchase orders or CODs), payable to Owen Ink in the amount of \$5 per disk, to Mac Disk Offer, 1830 Lawton Street, San Francisco, CA 94122-3328. Outside North America, add \$2 per order. Please specify whether you want the new "Totally Rad Mac" disk, the original "Way Cool Mac" disk, or both. All programs are provided "as is" and may not work on all Mac models and configurations. Note that the nominal fee covers materials and shipping costs only; remember to pay appropriate shareware fees where indicated. — O.W.L.

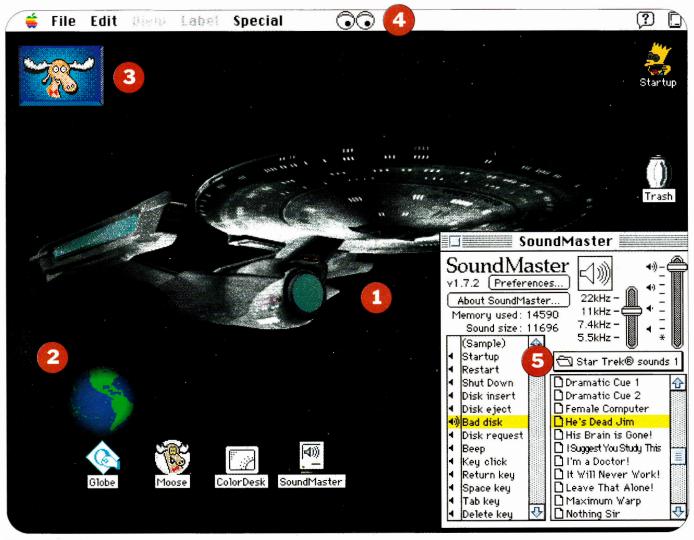


Figure 2. Design your own totally rad Mac universe

- 1. ColorDesk places pictures (in this case, a starship) on the desktop . . .
- 2. . . . while Globe animates the scene with a spinning planet.
- 3. Talking Moose adds animated characters who call out your menu choices and blurt out silly comments and wisecracks.
- 4. A pair of Eyeballs keeps tabs on your cursor and follows it around the screen.
- 5. Star Trek Soundware includes 50 sound effects (which you can link to system events) recorded digitally from the classic TV series.

tions. You can even add speech capabilities to your own HyperCard stacks.

Inspired by Rob Schneider's hilarious "Copy Guy" skit on Saturday Night Live, Makin' Copies is a freeware system extension written by Eric J. Hayes and Jim Wolff. Whenever you duplicate files, this annoying little bugger announces that you're "Makin' copies!" or "Still makin' copies!" This electronic peanut gallery includes a few other choice pieces of computer commentary, as well, but I'll leave them up to you to find.

CRAZY KEYBOARDS

Wacky Lights by Andrew Welch is similar to Rick Kaseguma's Key Lights, featured in my previous article. Both are public-domain system extensions that make the Num Lock, Caps Lock, and Scroll Lock light-emitting diodes (LEDs) on an Apple Extended Keyboard flash in a back-and-forth sequence.

Granted, Key Lights offers a few extra features, but some users have reported it to be more temperamental than the simplistic Wacky Lights.

MISCELLANEOUS MAYHEM

I wrestled over whether to include Sean Nolan's Mouse Odometer in this article, because sick, twisted minds might find that this program has some utilitarian value. It's a shareware system extension that tracks the distance, in miles, your cursor covers. It's even got a trip odometer to show you how far the cursor has moved since the last time you started up the Mac (Figure 1).

If you've read this far, chances are you're a fool for cool stuff. So is Bob LeVitus, the self-proclaimed "Dr. Macintosh" and author of *Stupid Mac Tricks* and its sequel, *Son of Stupid Mac Tricks*. Each of these books is published by Addison-Wesley and comes with a 3.5-inch disk containing 14 "insanely great" programs. Granted, there's a little duplication between these books and my articles, but if you just can't get enough cool stuff, get your hands on these book/disk combos.

The Ripper is a function key (FKEY) that lets you take out your frustrations on the Mac. Whenever you press Command-Shift-6, the active window is torn asunder to the sound of shredding paper (Figure 1). It's a little disconcerting when your document is severed in half and the

bottom disappears, but The Ripper is harmless. To restore a window, simply close it and then open it again. The Ripper is freeware and was written by Steve Blackstock of Random Dot Software.

ASININE ACCESSORIES

If The Ripper sounds cool, but you're more physically inclined, so to speak, grab hold of Smack Two, a 5-inch-tall stuffed Mac with keyboard, created by Computer Fun to provide a harmless outlet for computer stress.

Whenever your real Mac causes problems, take out your frustrations on the Smack Two instead. Unlike your priceybut-fragile Macintosh system, the inexpensive Smack Two is built for punishment. Its durable fabric is filled with soft foam, so you can punch it, throw it, and squeeze it without worrying about voiding your warranty.

The folks at Silicon Sports think most mouse pads are pretty generic, so they created Hyper Pad, a normal-looking mat covered by a thin layer of special heatsensitive liquid crystals. When warmed by the heat of your hand from 70 to 90 degrees Fahrenheit, Hyper Pad changes from drab black to a rainbow of reds, greens, and blues. Use it as a mood ring for your mouse, or a doodle pad when you're bored.

This summer, the most fashionable Macs will be sporting Screenwear, a "tube top" made of lightweight, stretchable fabric that slips over the front and sides of 12and 13-inch monitors. (There's a model designed for Classic-style Macs, too.) Screenwear comes in a variety of colors and patterns to suit your fancy. And since Screenwear isn't a dust cover, you can leave it on all the time.

Finally, just when you thought you'd seen everything, take a look at HangOuts from Oswamo Products. Ostensibly dust shields for idle floppy disk drives, Hang-Outs are made of soft, flexible plastic and come in five wacky designs: fish tail, human tongue, cow udders, frog legs, and grinning cat. HangOuts are available by mail order through Diskettes Unlimited.

EXCLUSIVE DISKS

Most of the shareware and publicdomain programs mentioned here are widely available in user groups' collections and on-line services' download libraries. Not everyone has access to those distribution channels, though, so with the permission of the programs' authors, inCider/A+ has put together an 800K disk containing the following programs and their related files: Critters (BigFoot and Eyeballs), Desk-Pat, Fish! (demo), Globe, Makin' Copies, Mouse Odometer, PowerOrgasm, The Ripper, Shutdown Fade, Shutdown Slide, Toilet, and Wacky Lights. (See the accompanying sidebar for ordering information.)

Also, in case you're an incredible procrastinator or haven't gotten the hang of the postal service yet, you can still order the disk that accompanied the "Way Cool Mac" article in the January 1992 issue. It contains a dozen different programs sure to make your Mac the coolest on the block.

FREE-LANCE WRITER OWEN W. LINZMAYER USED TO BE A COMPUTER GEEK. NOW HE'S A COMPUTER GEEK WITH A TOTALLY RAD MAC. WRITE TO HIM AT 1830 LAWTON STREET, SAN FRANCISCO, CA 94122-3328. ENCLOSE A SELF-ADDRESSED, STAMPED ENVELOPE IF YOU'D LIKE A PERSONAL REPLY.

PRODUCT INFORMATION

After Dark 2.0, \$49.95 More After Dark, \$39.95 Berkeley Systems, Inc. 1700 Shattuck Ave. Berkeley, CA 94709-1720 (800) 877-5535 (510) 540-5535

ClickChange 1.04

Dubl-Click Software 9316 Deering Ave. Chatsworth, CA 91311-5857 (818) 700-9525 \$89.95 list

Ben Haller/Stick Software 32 Deer Haven Drive Ithaca, NY 14850 freeware

Roy M. Lovejoy III/Adept Solutions 524 Avenida Verde San Marcos, CA 92069 freeware

Tom & Ed's Bogus Software 15600 Northeast 8th St. Suite A3334 Bellevue, WA 98008 \$22.95 shareware

HangOuts

Diskettes Unlimited 2278 Trade Zone Blvd. San Jose, CA 95131 (800) 222-6032 (408) 262-6660 \$4.99

Hyper Pad

Silicon Sports 425 Manzanita Way Woodside, CA 94062 (800) 243-2972 (415) 851-7900 \$19.95

Makin' Copies

Eric J. Hayes/Jim Wolff freeware

Mouse Odometer

Sean P. Nolan 3849 Klahanie Drive Southeast Apartment 7-304 Issaquah, WA 98027

Internet: seanno@microsoft.com \$5 shareware

Now Utilities 2.03

Now Software 520 Southwest Harrison St. Suite 435 Portland, OR 97201-5258 (800) 237-3611 (503) 274-2800 \$129

PowerOrgasm

Frank Price America Online: FrankPrice CompuServe: 74156,1307 freeware

ResEdit

Apple Computer 20525 Mariani Ave. Cupertino, CA 95014 (408) 252-2775 freeware

ResEdit Complete, \$29.95 ResEdit Reference, \$14.95 Stupid Mac Tricks, \$19.95 Son of Stupid Mac Tricks,

Addison-Wesley Publishing Co. 1 Jacob Way Reading, MA 01867-3999 (617) 944-3700 (800) 447-2226

The Ripper

Steve Blackstock Random Dot Software 40 Bartlett Ave. Lexington, MA 02173 CompuServe: 73270,1150 freeware

Screen Gems

Microseeds Publishing 5801 Benjamin Center Drive Suite 103 Tampa, FL 33634 (813) 882-8635 \$79

Screenwear

Warren/Fisher 1350 Lawrence St. Suite 100 Denver, CO 80204 (800) 487-9983

12- and 13-inch monitors \$8.95 Classic Macs

Shutdown Fade Shutdown Slide

Andrew McGeachie 32 Dover Road Wellesley, MA 02181 Internet: geech@cs.bu.edu freeware

Smack Two

Computer Fun 7343 Ronson Road Suite H San Diego, CA 92111 (800) 521-8484 (619) 279-1919 \$10.95

SoundMaster

Bruce Tomlin \$15 shareware

Star Trek Soundware

Sound Source Unlimited 2985 East Hillcrest Drive Suite A Westlake Village, CA 91362 (800) 877-4778 (805) 494-9996 \$49.95 each

Talking Moose 4.0.1

Baseline Publishing 1770 Moriah Woods Blvd. Suite 14 Memphis, TN 38117-7118 (800) 926-9676 (901) 682-9676 \$39.95

Michael J. Fisher freeware

Wacky Lights Andrew Welch

freeware

Wallpaper 1.0.1

Thought I Could 107 University Place Suite 4D New York, NY 10003-4524 (212) 673-9724 \$59.99

F THE

Look to the future of the Apple II: As commercial development declines, freeware and shareware programmers cut loose with a bounty of creative products for home, school, and small business.



development is at a standstill. Don't let • If the concept of freeware or shareware is those near-empty shelves fool you: New 2 new to you, you're in for a money-saving Apple IIe/c and IIGs programs continue to treat. Whether you're after fun and games, appear at an astounding rate.

freeware, and public-domain programs — • classroom lessons, literally thousands of software created not by the major third- programs are available. The adage "You party development companies you're get what you pay for" has been replaced familiar with, but by individuals and groups by "The best things in life are free." who make their products available at very • Or almost free.

FIRST IMPRESSIONS CAN BE • low cost via on-line services, user groups, deceiving. If you visit your local and specialized mail-order vendors.

Apple dealer or software store, If you're already using this type of softfor example, you might get the • ware, chances are your program collection feeling that Apple II software • will last you well into the next millennium. • a boost in small-business or home-office The trick is that they're mostly shareware, • productivity, or a supplement to your

By JOE KOHN * CONTRIBUTING EDITOR

40 • inCider/A+ • June 1992 Illustration • Tim Lee



reach a new market. With special stacks, documentation,

source code, samples, and an Extra

Manager, you'll be on your way to programming new transitions, button actions, and other goodies. Developer Pack requires HyperStudio 3.0 and a knowledge of computer programming.

Sensei. Miami Beach Productions, a French group, has now released Sensei — its final GS game. This ultimate karate simulation is visually stunning and contains some of the most beautiful computer graphics screens ever seen. It includes one- and two-player modes; in two-player mode, one person uses a joystick while the other uses the keyboard. The game allows for 11 different moves and provides 12 levels of challenge. Sensei includes realistic digitized sound effects and a fantastic soundtrack. This game was originally scheduled for a commercial release in France, and when the software publisher went out of business, Miami Beach Productions released it as freeware. Thanks, guys.

Simple Animation Program. If you like the Free Tools Association's animation demos and wish you could create similar software, you can — thanks to Kenrick Mock's freeware Simple Animation Program. SAP 0.5 lets you create animated sequences complete with jazzy Sound Smith soundtracks. You can add digitized sounds easily as well. No programming skills are required. All you need are 1.25 megabytes of RAM, an active imagination, and a paint program. Use your graphics package to create backgrounds, then add animated actors, dancing letters, and Sound Smith songs.

SAP includes three modules: *Projector*, to run the animations; *Actoredit*, to create action; and *Scenedit*, to piece your animation together. Also included are complete documentation and a step-by-step tutorial.

Sounds of History. Joel Helton, an educator from Tennessee, has produced a series of HyperStudio stacks called Sounds of History — multimedia in the truest sense of the word. Using a Quickie hand-held scanner, Helton input a number of photographs of historical people and events, then added associated recordings and other relevant text information.

Volume I includes memorable occasions such as the speech given by Edward VII as he abdicated his throne for the woman he loved; an account of the Hindenburg disaster; a rare sound recording of Thomas Alva Edison from 1912; a speech by Charles Lindbergh upon his return to the United States after his 1927 solo crossing of the Atlantic; and a version of the World War I-era tune *Over There*, sung by Enrico Caruso.

Volume 2 is devoted primarily to the sights and sounds of World War II. You'll hear Neville Chamberlain, prime minister of England, announcing the start of World War II in 1939. You'll hear his successor, Winston Churchill, proclaim during the Battle of Britain that "this was their finest hour." You'll hear General Dwight D. Eisenhower announce that Allied Forces have landed on the beaches of Normandy on D-Day. You'll hear Harry S Truman announce both the surrender of Germany on VE Day and the dropping of the first atomic bomb on Hiroshima. Jumping ahead 40 years, you'll hear the last words transmitted by the crew of the space shuttle Challenger.

Volume 3 could be called "Baseball's Greatest Moments." In this stack, you'll hear Lou Gehrig's 1939 farewell address at Yankee Stadium, when he calls himself "the luckiest man on the face of the earth." You'll also hear Babe Ruth's 1947 farewell address at Yankee Stadium; the announcer losing his composure as the New York Giants win the 1951 National League pennant on Bobby Thompson's famous home run; and the conclusion of Don Larsen's 1956 World Series perfect game. Perhaps the most famous of all baseball expressions, Abbott and Costello's "who's on first," concludes this stack.

Star Trek Classic. Joe Jaworski has updated a classic textbased adventure and created a stunning super-hi-res, mouse-driven version of one of the earliest games ever written for the Apple II: Star Trek Classic (\$20 shareware fee, 1.5 megabytes of RAM required).

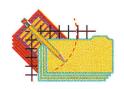
As Captain Kirk, you'll discover that your next mission is to make the galaxy safe from the Klingons. As the game begins, you'll hear the *Star Trek* theme song, digitized from the TV show. You'll soon learn that 21 invading Klingon ships have been spotted. If you don't stop them in 31 days, Federation headquarters will come under attack.

Just as on the USS *Enterprise*, you have access to the ship's computer, navigation system, and short- and long-range sensors. You'll be able to assess damage control, launch photon torpedoes, and direct phasor fire toward the enemy. Will you save the Federation? Stay tuned.

SOFTWARE, SOFTWARE EVERYWHERE

No one will dispute the statement that the number of new commercial programs for the Apple IIe/c and IIGs is somewhat limited now. A trip to a retail software store may be more frustrating than fun these days, but the silver lining to that cloud is the enhanced visibility of some very creative public-domain and shareware programs. You may have to spend some time poring over the huge number of options available, as quality in this genre varies greatly — but don't let anyone tell you there's no new software for your Apple II. \square

CONTRIBUTING EDITOR JOE KOHN IS THE AUTHOR OF *INCIDER/A+*'S MONTHLY "SHAREWARE SOLUTIONS" COLUMN IN THE WHAT'S NEW SECTION. WRITE TO HIM AT 166 ALPINE STREET, SAN RAFAEL, CA 94901. ENCLOSE A SELF-ADDRESSED, STAMPED ENVELOPE IF YOU'D LIKE A PERSONAL REPLY.



APPLEWORKS IN ACTION

Paper Tiger 2

Tame the document search: Merge a database report with a word-processed letter to create a record for your family.

By RUTH K. WITKIN

"COMBO" COLUMNS — USING THE AppleWorks database and word processor or the word processor and spreadsheet — are the kind I like to write best. That's because they teach different facets of AppleWorks at the same time, plus they show off the power and pleasure of working with integrated software.

In this column, you'll design a new report in the *Documents* database you set up last month (May 1992, p. 40) and merge it with a letter you create this month. In the process, you'll create a report format as well as a letter format that includes a

tab ruler. **Figure 1** shows the result. If you missed last month's column, you can request a reprint from the *inCider/A*+ editorial department at 80 Elm Street, Peterborough, NH 03458, (603) 924-0262.

Now load AppleWorks and bring the database, named *IMPDOCS*, to the screen. The ten records you entered appear in the *Review/Add/Change* screen's multiple-record layout.

REPORT 4

First, create the report you want to merge (Figure 2). It will contain information that helps locate or replace important documents, plus notes and reminders. The fastest way to create it is to duplicate an existing format.

Press OA-P to get to the Report menu, type 4, and press Return to select Duplicate an existing format. Press Return to confirm the LOCATE/REPLACE report format. Press OA-Y to erase the current report name, then type LOCATE — NOTES (the name of this new report) and hit Return again. You're now in Report Format.

In this report, you want to print only the *DOCUMENT*, *KEPT*, *LOCATION*, and *NOTES* categories; you want to delete the others. Press Tab three times to reach the *COMPANY/AGENCY* category, and press OA-D six times. The cursor is now on the

NOTES category. Press Tab to skip to SPARE1. Delete all spares by pressing OA-D ten times. The cursor is now on Ln64, the indicator that shows the total width, in characters, of the remaining categories.

All of the category widths are fine except

All of the category widths are fine except for *NOTES*, which needs to be wider. Press Left Arrow to settle on the *NOTES* category, and press OA-Right Arrow eight times. The indicator should now show *Ln72*.

Next have AppleWorks print a dash when an entry is blank: Press OA-O to bring up the *Printer Options* screen. Type **PD** and hit Return. Press Escape to return to *Report Format*. Your report is complete.

Turn on your printer. Now print the report to see what you're working with: Press OA-P, press Return to confirm the printer (or type a printer number, then Return), and hit Return twice more to move past the date and confirm *I* copy.

The printer whirs away to produce the report shown in **Figure 2**. Press OA-S to store it on disk. You're now back in the *Review/Add/Change* screen.

A LETTER FROM SCRATCH

Next, create the letter. Hit Escape to return to the main menu, and create a new AppleWorks word-processor file named **IMPDOC MERGE**. The *Review/Add/Change* screen appears, with the cursor in line 1 column 1.

Figure 3 shows the text of the letter, line numbers, and "blots" where you press Return. Word wraparound makes any word that can't fit at the end of a line move down to the beginning of the next line; press Return only to end a paragraph or to insert a blank line.

If you make a typo, press Delete to back up the cursor and erase the character. So that we're working with the same line and column numbers, type only one space between sentences.

Now press OA-Z to show blots on screen as you work. Enter the text as follows: Line 1. Type June 21, 1992, then press

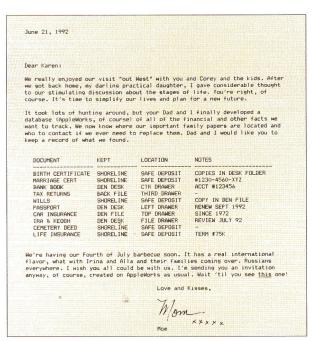


Figure 1. Documents database report merged with family letter.



Figure 2. Documents database report.

Return five times to end the paragraph and insert four blank lines. The cursor moves to line 6, as shown at the bottom of the screen. Line 6. Type Dear Karen: and press Return twice. The cursor moves to line 8. Line 8. Referring to Figure 3, type the entire paragraph that starts We really enjoyed our visit "out West" with you and Corey and the kids. At the end of the paragraph, press Return twice. The cursor moves to line 15.

Line 15. Type the entire paragraph that starts It took lots of hunting around At the end of the paragraph, press Return three times. The cursor moves to line 23. Line 23. Type the entire paragraph that starts We're having our Fourth of July barbecue soon. At the end of the paragraph, press Return twice. The cursor moves to line 30.

Line 30. Type Love and Kisses, then press Return six times. The cursor moves to line 36. Line 36. Type Mom and leave the cursor where it is, which should be line 36 column 4. This completes the letter, so press OA-S to store it on disk.

You want to be sure everything's spelled correctly, so press OA-V now to start the *Verify Spelling* command. The highlight is on *All*, which tells AppleWorks to check the spelling of every word in the letter. (Selecting *Word* checks the word under the cursor, or to the left if the cursor is between words. Selecting *Block* checks each word in the block of text you highlight.) Press Return to confirm *All*.

AppleWorks scans the letter and pauses with the cursor on the name *Irina*, an unknown word. Type **I** to tell AppleWorks to ignore this word. It now pauses on *Alla*, another unknown word. Again, type **I**. Next, AppleWorks pauses on *'til*. Type **I** again. This completes the spelling check.

MERGING LETTER AND REPORT

The last step is to merge the document report with the letter. First, get to the data-

base: Press OA-Q to display the *Desktop Index*, type the number corresponding to *IMPDOCS*, and press Return.

Now print the report on the clipboard: Press OA-P to bring up the *Report* menu, and hit Return to *Get a report format*.

Type the number corresponding to LOCATE — NOTES, and hit Return. Now press OA-P to reach the Print the Report screen. Type the number (typically 3) corresponding to The clipboard (for the Word Processor) and press Return twice, the second time to move past the report date.

AppleWorks advises that the report is now on the clipboard. Press OA-Q to switch to the *Desktop Index* again, type the number corresponding to *IMPDOC MERGE* (the letter you just created), then hit Return. And there's the letter.

Move the cursor to line 23 column 1 (the start of the third paragraph) and press OA-C. Type **F** to select *From clipboard*. Like magic, AppleWorks pops the document report into the letter.

The letter still looks fine, but the report is more than a bit messy. Let's see how it looks on paper. Be sure your printer is turned on. Now press OA-P, hit return twice to confirm *Beginning* and the printer (or type a printer number, then Return), and hit Return again to confirm *1* copy. The printer whirs, and there's the letter. Hmmm — looks as bad on paper as it did on screen.

Formatting will get the kinks out of the letter. Press OA-1 to jump the cursor to the start of the document.

First change the margins: Press OA-O to bring up the *Printer Options* screen. Type **TM** (for *Top Margin*) and press Return. Type **1** and hit Return again. Type **LM** (for *Left Margin*) and press Return. Type **.6** and hit Return again. Now type **RM** (for *Right Margin*) and press Return. Type **.9** and hit Return again.

Figure 3. Text of family letter.

Finally, change the size of the text from the standard 10 characters per inch to the smaller 12 characters per inch: Type CI and hit Return. Type 12 and hit Return again. Press OA-S to save the settings, which also returns you to the Review/Add/Change screen. Move the cursor down to the document report, and you'll see a small miracle: The columns are correct. Next, delete the information in the Apple-Works header: Place the cursor on line 24 column 1 and press OA-D. Press Down Arrow twice, then OA-Right Arrow twice to highlight all three header lines, and Return.

You could eliminate the header before copying the report to the clipboard, but there's a down side: You'd also eliminate the category names. To have your cake (get rid of the filename, report name, and page number) and eat it, too (keep the category names), your best bet is to just bring everything into the letter, then delete what you don't want.

The cursor is on the *D* in *DOCUMENT*. Indent the entire report: Press OA-O to bring up the *Printer Options* screen once more. Type **LM**, press Return, type **.8**, and hit Return again. Press Escape to close the *Printer Options* screen.

An easy way to restore the normal left margin to the final paragraph is to copy the margin indicator at the beginning of the letter. Press OA-1 and place the cursor on the *Left Margin* indicator. Press OA-C and hit Return, which highlights the indicator. Press OA-7 to jump to line 37 column 3, press Down Arrow twice to reach line 39, and hit Return. The margin indicator is now in its proper place.



MPD 5¼" DISK DRIVES FOR:

1 Year Warranty Parts & Labor

Apple II, II+, Ile Franklin Ace 1000 Apple IIGS 100% Compatible



Super Quiet Cable Included

Apple IIe UniDisk Apple IIc & IIc+ Laser 128's

\$99.00 **Daisy Chain Port Included**

AMR 31/2" Disk Drive For Apple IIc+ & IIGS \$199.00

45		
PRO TERM \$78.50 Memory Chips Call	UNIVERSAL DISK CONTROLLER Run 800K Disk Drives on your II+ and IIe	
MPD 4 Meg GS Card	\$64.95	
0 Meg		
1 Meg \$99.00	800K DISK DRIVE 3½	
2 Meg \$139.00	for II+, IIe, MAC, LASER 128	
4 Meg \$219.00	\$179.00	
SUPER EXPANDER	Disk Controller Card	
lle llc	For Apple II, II+ & IIe \$34.95	
0K \$52.50 \$65.50	5 Year Warranty	
256K \$72.50 \$85.50	CPM Card \$34.95	
512K \$92.50 \$105.50	Ile Numeric Keypad \$34.95	
1 Meg\$132.50 \$145.50		
GS MOUSE \$59.00	Cooling Fan for Apple II+ & IIe	
GS MOUSE	With Surge Surpressor \$26.95	
SWITCH BOXES	Cooling Fan No	
DIN 8 A/B \$24.95	For \$19.95 Noise	
DIN 8 A/B/C/D \$29.95	Apple IIGS Interference	
DB 25 A/B \$24.95		
DB 25 A/B/C/D \$34.95	ACCESSORIES	
Parallel A/B \$24.95	Mouse Pad \$4.95	
Parallel A/B/C/D \$34.95	Disk Notcher \$4.50	
Extended 80 Column Card	Disk Clean 5 ¼ \$4.00 Disk Clean 3½ \$4.00	
With 64K for Apple IIe	Mouse Pocket \$4.95	
100% Appleworks	Amber Monitor \$109.00	
Compatible \$ \$38.95		
5 Year Warranty	Replacement 7 Amp. Pwr. Supply Ile Keyboard II, II+ & IIe	
SUPER SERIAL CARD	tops and the second	
100% Apple Compatible	\$60.00 \$55.00	
5 Year Warranty \$48.95	Joystick for Apple IIe, IIc,	
Graphics Printer Card w/Cable	IIc+ & IIGS A.A././	
For Apple II+ & IIe	With Fire Button \$24.95	
5 Year Parallel		
Warranty \$44.95	Same as Mach III	
- WANTE - WII.20	Cables From\$9.95	
DISKETTE STORAGE W/Lock		
5½ Holds 70 Disks \$6.95	IIe to Modem IIc to Modem IIe to IMG I IIc to IMG II	
5¼ Holds 100 Disks \$8.95 5¼ Holds 120 Disks \$10.95	Ile to IMG I IIc to IMG II	
3½ Holds 100 Disks \$8.95	Talk & Data Kits	
	SCSI Cables	
II+ OWNERS 16K Card\$34.95		
128K Card	GS Power Supply	
80 Column Card \$48.95	7 Amp.	
Plus Works \$49.00	- Walletoness	
5 Year Warranty	\$69.00	



VISA & MASTERCARD - NO EXTRA CHARGE

DEALER PRICING

Shipping Most Items \$6.00 / Drives \$8.00 / C.O.D. + \$4.00

MEMORY PLUS DISTRIBUTORS, INC.

We carry only the est Quality products for your Apple. the BEST!

Prices subject to change without notice.

505 South 48th Street, Suite #104 Tempe, Arizona 85281 (602) 820-8819

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

Circle 248 on Reader Service Card.

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

APPLEWORKS IN ACTION

The last two items of text in the letter (Love and Kisses and Mom) belong in the middle of their respective lines; you can move them easily by tabbing. Except for the first tab, which occurs at the sixth character, AppleWorks marks tabs in fivecharacter increments. Therefore, you could move each item by tabbing eight times. By creating a tab ruler, however, you can zip to the proper place with no fuss or bother.

Here's how: Place the cursor on line 47 column 1, and press OA-T to bring up the Modify Tab Stops screen. Hit Return to confirm Modify current. Now eliminate all tabs: Type N (for No tabs). Next, insert the tab you want: Hold down Right Arrow until the cursor on the tab bar (at the top of the screen) moves to column 40 (check the counter in the lower-right corner of the screen). Then type L (for Left) and hit Escape.

Now getting Love and Kisses where you want takes only a keystroke: Press Tab. Zip. Next move the cursor to line 53 column 1 and press Tab. Again, the cursor zips the text to the center of the line — oh, so simple.

Only one bit of formatting remains underlining the word this at the end of the third paragraph. Place the cursor on line 44 column 70 and press control-L to start the underline. Move to line 44 column 75 and press control-L to end the underline. When you put the cursor on a caret, you can see that it means underline.

Now print the formatted letter. This is going to be good - trust me. Be sure the printer is still on. Press OA-P and hit Return three times. When the printer stops, your letter should look like the one in Figure 1 - very attractive. Press OA-S to save it on disk.

NEXT TIME

If you're thinking about starting a small business - either for primary income or as a sideline - you can't afford to miss next month's business-startup spreadsheet. It shows what you need to consider, dollarwise, before making your move.

RUTH WITKIN IS THE CREATOR OF THE SUCCESS WITH APPLEWORKS TEMPLATE SERIES AND RUTH WITKIN'S MONEY MANAGER (A+ PUBLISHING, IDG COMMUNICATIONS). SHE'S ALSO THE AUTHOR OF THE BEST BOOK OF APPLEWORKS AND PERSONAL MONEY MANAGEMENT WITH APPLEWORKS. WRITE TO HER AT 5 PATRICIA STREET, PLAINVIEW, NY 11803. ENCLOSE AN SASE IF YOU'D LIKE A REPLY.

INTRODUCING

TimeOut Grammar NEW!



TimeOut Grammar do protect your Writing from embarassing mistakes.

GRAMMAR

Remember when spelling checkers were considered inconvenient?

Well... they were inconvenient. But now all word processors have built-in spell checking, and everyone uses them. It's the same with grammar checkers. Until now. New TimeOut Grammar adds built-in grammar checking to your AppleWorks word processing. With TimeOut Grammar, you have the power to guard your writing against embarrassing errors. No matter what you write, from a high-school paper to an annual report, TimeOut Grammar will make it stronger, clearer and more concise.

TimeOut Grammar......coming June 1 \$49%

suggested retail \$79.95

Save up to 55% on TimeOut programs! Any 3 for \$79⁹⁵ • Any 4 for \$99⁹⁵

This is a limited time offer and does not include TimeOut Grammar

TimeOut SuperFonts

Now you can print out your AppleWorks files with fancy fonts and graphics. SuperFonts works with all the same formatting commands you normally use in AppleWorks. SuperFonts even adds some new commands, like right justify and absolute tab. \$42.95



TimeOut Graph

Organize your spreadsheet figures into clear, informative graphs, Just choose the type of graph you want and it appears instantly—all ready to

print—with titles, subtitles, legends, borders, and more. \$52.95

TimeOut Thesaurus

Choose any word in the word processor and select Thesaurus from the TimeOut menu. You'll see a list of words with similar meanings—synonyms—displayed on the screen. Choose the new word you want and Thesaurus does the rest. \$32.95

TimeOut TextTools

These word processor enhancements take the drudgery out of producing complicated documents—term papers, proposals, newsletters, even your Great American Novel. \$32.95

TimeOut SideSpread

Print your spreadsheets and data base files sideways—inside AppleWorks! SideSpread can print all or part of your file in a wide variety of sizes and print qualities. \$32.95

TimeOut ReportWriter

ReportWriter's flexible report generator makes AppleWorks a powerful administrative tool. Generate report cards, attendance records, lesson plans, forms and more. \$48.95

TimeOut UltraMacros

Automate AppleWorks with this ultra-powerful program. Never retype repetitive information again. Record your keystrokes as you go, and then play them back—up to 4,000 keystrokes with one command! \$40.95

Circle 136 on Reader Service Card.

This special offer also includes these great TimeOut modules:

32.95
32.95
32.95
40.95
42.95
25.95
40.95
42.95
32.95



Quality Computers™

20200 Nine Mile Rd. • P.O. Box 665 St. Clair Shores, MI 48080 Phone: 313-774-7200 • Fax 313-774-2698

Orders 1-800-443-6697 Support 313-774-7740



AT YOUR FINGERTIPS

Keep program-function and "hidden key" reminders right where you need them.

By CYNTHIA E. FIELD, Ph.D.

SUMMERTIME AND COMPUTIN' IS easy . . . thanks to two inexpensive (about \$10 apiece) desktop-publishing (DTP) accessories I stumbled upon during a brief spring-cleaning session. As I browsed through a gargantuan stack of Apple II and Mac mail-order catalogues that had piled up during the winter, I

discovered two genuine DTP gems: KeyCappers printed keytop stickers, from International Datawares, and Speed Pad II, a mouse pad with transparent "cheat sheet" overlay.

COVERT CHARACTERS

One recent Press Room column ("Just Your Type," March 1992, p. 48) provided a short course on bitmapped fonts of the "GS" persuasion — hundreds of which are available free in the public domain. You can use these fonts with Publish

It! 4 on an Apple IIe/c or GS, as well as with 16-bit programs, such as AppleWorks GS 1.1, which require an Apple IIGS.

In that earlier column, I described a bonus utility that comes with Seven Hills' SuperConvert, an Apple HGS super-hires graphics-conversion program. Super-Convert's Font Key Chart function (listed on the Extras menu) prints a table showing all characters in the fonts you install in the System folder on your Apple HGS startup disk. The list includes "hidden" extended characters, such as the trademark symbol and foreign-language accents offered by fonts like Geneva. (Many so-called "GS" fonts originated as dot-matrix Macintosh fonts and have much in common with their Macintosh counterparts.)

SuperConvert's capability opens up a convenient way to recall the key combinations you need to print symbols

and accents

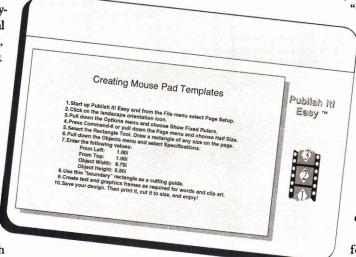


Figure. Sample Speed Pad II reference sheet.

such as \mathfrak{B} , π , and \mathfrak{g} on screen — and ultimately on paper. All you have to do is print a SuperConvert Font Key Chart for every typeface you use customarily, and keep the hardcopies near your GS.

The Mac's KeyCaps desk accessory provides somewhat more convenience in this area. A facsimile of the Mac keyboard pops up on screen when you choose

KeyCaps from the Apple menu; toggle between the standard QWERTY layout and alternative characters by pressing the option key or a shift-option combination.

I've found a still more convenient way, however, for both GS and Macintosh users to keep key-command reminders handy. International Datawares' KeyCappers is a set of four dozen sturdy, transparent, adhesive stickers for Macintosh keys. Trim their top edges slightly with an X-Acto knife and they fit the GS, too. Extended characters on each sticker are printed in red and shifted slightly to the right, so that the black characters already on the key show through. For example, the P key on a Macintosh LC ends up sporting red upper- and lowercase pi symbols (\prod, π) as well as a black uppercase P. Now thanks to KeyCappers, you don't have to use the

> "Columbus method" to create, say, ® on your GS. Just press the combination Option-r.

Note that before creating extended characters on the GS (in AppleWorks GS, for instance), you can save some aggravation by pulling down the Apple menu, selecting the Control Panel, opening the Keyboard icon, and making sure Translation is set to Standard, not None. If it's set to None, you can't type extended characters at all.

In an ideal world, all bit-mapped fonts for the GS or Mac would include every extended character

represented in the KeyCappers stickers set. Not so. For instance, the Geneva font on my GS offers only about 60 percent of the KeyCappers set. Fortunately, that includes the characters I need most, such as ™, ®, and ©. Suffice it to say that for both GS and Mac users KeyCappers is an inexpensive way to increase productivity at home, in the office, or at school.

By the way, if, like me, you use both a Mac and a GS and you're budget-minded,

you can purchase just one set of Key-Cappers and stick them on the Mac. Then, when you need to create desktop publications or format foreign-language documents on the GS, just swap keyboards. (I also use a trackball purchased for my Mac LC on my GS when the mood strikes.) For safety's sake, make sure both computers are turned off before swapping devices such as keyboards.

AT YOUR COMMAND

While KeyCappers can help you get a handle on extended character sets, you can keep program commands and functions literally at your fingertips with Speed Pad II, a cleverly designed "quick reference" mouse pad. Speed Pad II has one of the best nonskid rubber bases I've seen; it reminds me of the big pads used to cushion office typewriters. It also has one unique feature — a transparent plastic overlay flap. Just slip a reference sheet beneath the flap, and voilà: instant reminders about system commands and shortcuts.

Many possible applications come to mind. For example, you could use a Publish It! template to keep that program's Quick Keys commands within arm's length. Apple IIGs enthusiasts might create templates to help them remember alternative keyboard commands in AppleWorks GS or to master HyperCard IIGs HyperTalk commands.

Teachers could design templates to remind students about computer procedures or program commands. And because the templates are interchangeable, you can switch them as needed. When a different class arrives, just lift up the overlay, remove the Publish It! reference sheet, and replace it with one for, perhaps, AppleWorks GS.

I created my best-loved template for On Balance, a discontinued accounting program I still use. Because I catch up on finances only once a month, I often have trouble remembering the account codes I defined back in January. My On Balance template comes to the rescue and is a real time saver.

A ready-made Macintosh Quick Reference Template comes with Speed Pad II, but you can create your own. And, of course, you can use this mouse pad with an Apple IIe/c or GS as well. That's why this month we'll use an assortment of DTP programs — Publish It! 4 (for the Apple II family), AppleWorks GS 1.1 (for the GS), and Publish It! Easy (for Macintoshes) — to create blank, ready-to-customize templates for Speed Pad II reference sheets.

Speed Pad II comes in two sizes, 8.75 inches wide by 7 inches high and 11.5 inches wide by 10 inches high; I chose the smaller one for this month's project. Note that because of Publish It! 4's page-width limitation (you can't print beyond the 8-inch mark) and its inability to print in landscape (sideways) mode, the mouse-pad templates you create with it will be slightly smaller than the ideal 8.75 by 5.50 inches. Those created with AppleWorks GS 1.1 and Publish It! Easy should be perfect, though.

As in every column, I've tried to make this month's Press Room templates a snap to reproduce by providing the exact "specs" you need. Just create the objects I suggest and enter their dimensions — that's all there is to it. When you're ready to enhance the design, remember that mousepad templates can be as plain or fancy as you like, thanks to the text and graphics capabilities that Apple II and Mac DTP programs provide.

You might include your school's name or logo, or a picture of its mascot, for example. You could reserve a blank area for handwritten notes or even a user log. Store an electronic copy of each customized template under a unique filename on a data disk. That way you can edit templates quickly and print extra copies when originals wear out. And keep in mind that you can photocopy templates for just pennies apiece.

TWO FOR ONE: PUBLISH IT! 4

The Publish It! 4 layout lets you fit two templates on a single page. This program also boasts several time-saving features that help make mouse-pad templates easy to design.

One is the handy Show Specifications popup dialog box, which lets you enter object dimensions quickly and yet with extraordinary (thousandths of an inch) precision. The program's Frame Borders capability is another: Unlike other DTP programs, Publish It! 4 can create a printed border for text frames automatically. Because you specify its line weight (thickness), the border can serve either as a design element or as a guide for small publications you must cut apart.

The Speed Pad II template takes advantage of both these Publish It! 4 features. As a result, you can create this month's layout in less than ten minutes. On your mark....

Get Publish It! 4 up and running. When the program loads, switch to Size to Fit view, if you're not already in that mode. (To change viewing modes, pull down the Objects menu or use alternate keyboard commands. For Size to Fit, press Open apple-4.)

Select the text tool, and "rubber-band" a text frame of any size. (Hold down the mouse button while dragging diagonally. When the frame is the desired size, release the button.)

Press Open apple-M (OA-M), or pull down the *Objects* menu and choose *Show Specifications*. If a *Show Specifications* dialog box fails to appear, it's probably because the text frame you created isn't properly "selected." Click on the pointer in the tool palette and then on the text frame. Selecting an object supplies it with "handles" — tiny squares along each side and at the corners. Now press OA-M, or pull down the *Objects* menu and choose *Show Specifications*. (Publish It! 4 shortcut: Use the pointer to double-click on the object. A *Show Specifications* box pops up automatically.)

In the Show Specifications box, click the I-beam into the Left Start box, erase the contents of the box with the delete key, then type **0.250**. Press the tab key to move the I-beam to the Top Start box, and replace its contents with **0.250**. Typing these values makes the text frame you created begin a quarter inch from both the left edge and top of the page. Press the tab key, and make the frame's width **7.600** and its height **5.000**. Click on the Frame Borders check box.

Pull down the *Page* menu and choose *Frame Borders*. Adjust the border margin to **0.050**, and select the line weight you prefer. Your choice will apply to every bordered text frame you place on the Publish It! page.

It's easy to create a second mouse-pad layout on the same page. Click the pointer on the text frame to select it. Press OA-C to copy a snapshot of the frame to memory. Now press OA-V to paste the copy on screen. Press OA-M, and change the frame's *Left Start* to **0.250** and *Top Start* to **5.500**. The second text frame's width and height should be the same as the original's, and the *Frame Border* check box should already display an *X*.

Save your template as **Mouse.Pad**, or any other name you like. (The *Save As* option is located on the *File* menu. If you need to format a data disk, you'll find that listed there, too.)

Use the *File* menu's *Print* option or the OA-P command to print a draft copy of your template. With an ImageWriter II, insert continuous paper so that it lines up with the tractor-feed icon on the back of the printer. (Line up ordinary paper with the single-sheet icon on the back cover.)

Advance the paper so that its top edge lines up with the top of the hole in the plastic paper guide. You may need to experiment a little to locate analogous settings on other printers. Select Publish It!'s double-strike print mode for most-attractive results.

Cut out the two templates, either inside or outside the borders. Then test them under Speed Pad II's transparent overlay. If they fit, go back to your template and add text and graphics as needed for the reminders you want to create, and remember to save the file under a different name each time you customize.

MOUSING AROUND: APPLEWORKS GS

Creating a Speed Pad II template is even easier with AppleWorks GS 1.1. Start up

the program's page-layout module. Pull down the *File* menu and select *Page Setup*. Click on the *Vertical Condense* check box and the landscape-printing *Orientation* icon. Now click on the *OK* button when you're done.

On screen you should see a work area that's 10.5 inches wide and 8.5 inches high. Use screen rulers as guides (if they're not already showing, select *Show Rulers* from the *Options* menu), and work in *Actual Size* and *Fit in Window* modes as appropriate. Use OA-W (or the *Options* menu) to toggle between modes.

Select the rectangle tool, then begin the rectangle at the 1-inch mark on the horizontal ruler and end it at the 9.75-inch mark. On the vertical ruler, begin at 1 inch and end at 6.50.

Annoyingly, the page-layout screen doesn't scroll automatically when you exceed its boundaries. Draw the largest rectangle you can see in *Actual Size* mode, drag the horizontal scroll bar, and increase the rectangle's width by dragging on one of its handles.

If the rectangle isn't selected, click on its perimeter with the selection arrow before resizing. Also, use the vertical scroll bar before increasing the rectangle's height.

Now save your template as **Mouse.Pad** or another name you like. Then print it and cut it out just inside the rectangle outline. It should fit your Speed Pad II precisely.

Time to customize: Use the text tool to draw the text frames you need. Incorporate original artwork or clip-art illustrations from AppleWorks GS' own graphics module.

To import artwork from a third-party clip-art disk, insert the disk into a drive

and select *Open* from the *File* menu. Then locate the clip-art volume, open the appropriate artwork folder (if necessary), and select the file you want to import.

AppleWorks GS 1.1 will now create a graphics document automatically to accommodate the illustrations. Use the lasso or marquée tool to select the clip art you want to use. Press OA-C to copy a snapshot of the illustration to the GS' clipboard.

Switch to the page-layout document (*Window* menu), and press OA-V to paste the clip art onto the page. Move and resize the graphic to suit your needs. Save the file under an appropriate name.

OF MICE AND MACS: PUBLISH IT! EASY

Start up Publish It! Easy and select *Page Setup* from the *File* menu. Click on the landscape orientation icon. Pull down the *Options* menu and choose *Show Fixed Rulers*. Pull down the *Page* menu and choose *Half Size* (or just press Command-6).

Select the rectangle tool and draw a box of any size on the page. Now pull down the *Objects* menu and select *Specifications*. For *From Left*, type in **1.00i**; for *From Top*, type in **1.00i**; for *Object Width*, type in **8.75i**; for *Object Height*, type in **5.50i**. This "boundary" rectangle will serve as your cutting guide.

Now create text and graphics frames for your first custom mouse-pad design and save it under an appropriate filename. Print and trim to size. (See the accompanying **Figure** for a sample design.)

CRIBBING 101

KeyCappers can make life a little simpler for Apple IIGs and Macintosh desktop publishers. And a Speed Pad II mouse pad not only provides good traction, but lets you keep program commands at your fingertips. Whether they're dancing on an Apple IIe/c, a GS, or a Mac, you owe it to yourself to take a closer look at these inexpensive DTP helpers. □

CONTRIBUTING EDITOR CYNTHIA E. FIELD IS A FREE-LANCE JOURNALIST SPECIALIZING IN COMPUTER-RELATED TOPICS. WRITE TO HER AT 60 BORDER DRIVE, WAKEFIELD, RI 02879. ENCLOSE A SELF-ADDRESSED, STAMPED ENVELOPE IF YOU'D LIKE A PERSONAL REPLY.

PRODUCT INFORMATION

AppleWorks GS 1.1

Claris Corporation 5201 Patrick Henry Drive P.O. Box 58168 Santa Clara, CA 95052-8168 (408) 727-8227 \$299

KeyCappers, \$9.95 Speed Pad II, \$11.50 International Datawares 2278 Trade Zone Blvd. San Jose, CA 95131 (800) 222-6032 orders (408) 262-6660 customer service

Publish It! Easy, \$249.95 Publish It! 4, \$149.95 Timeworks, Inc. 625 Academy Drive Northbrook, IL 60062 (800) 323-7744 orders (708) 559-1300 SuperConvert 3.01

Seven Hills Software Corp. 2310 Oxford Road Tallahassee, FL 32304-3930 (904) 575-0566 (904) 576-9415 technical support (904) 575-2015 fax \$39.95



Preferred Products at Preferred Prices!





MEMORY EXPANSION	
Applied Engineering	
GS-Ram Plus 1MB (GS) Special! RamWorks 1MB	\$205 \$185
RamFactor 1MB (IIe, II+)	\$264
Ram Express II 1MB (IIc, IIc+)	\$205
Z-Ram Ultra 2 1MB (with clock)	\$285
Memory Chips	
1MB Chips (bank)	\$59
256K Chips (bank)	\$24
ACCELERATORS/COPROCESSO	RS
TransWarp GS (Make your GS 2 1/2 times faster!)	
TransWarp GS w/32K Cache TWGS 32K Cache (Make your	\$299
TransWarp GS 22% faster!)	\$79
TransWarp (Original accelerator for II, II+ and IIe)	\$99
COMMUNICATIONS	1
DataLink 2400 bps (int.)	\$160
DL 2400 w/SendFAX! (GS)	
Datal inly Europea 2400 (out)	

	DataLink 2400 bps (int.)	\$160
	DL 2400 w/SendFAX! (GS)	\$199
	DataLink Express 2400 (ext.)	\$169
	DL/X 2400 w/MNP-5 & FAX	
	Zoom Pack — includes MX2400, ReadyLink & Cable.	\$129
-	ADDITIONAL HARDWARE	
1	Applied Engineering	

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

PC TRANSPORTER CORNER

ColorLink RGB



PCT Specials

(Or FREE with purchase of any item listed in PC Transporter Corner.)

Carriell Carrie Planton (CC)	\$50.05
Special! Sonic Blaster (GS)	
TimeMaster HO (GS, Ile, II+)	
IIe/II+ Power Supply	\$59.95
IIgs Power Supply	\$89
Parallel Pro Special! Parallel Pro w/32K Buffer	\$77 \$119
Serial Pro	
AE Disk Drives	
	¢227
New! 3.5" 1.6MB (GS)	¢100
3.5" 800K (GS, IIe, IIc+)	
3.5" Controller Card (IIe, II+)	
5.25" Disk Drive (all Apple II's)	
5.25" Controller Card (Ile, II+)	\$55
Apple	
High Speed SCSI (GS, IIe)	\$109
Kensington	
System Saver (II+, IIe)	\$69
System Saver GS	
Turbo Mouse ADB (GS, Mac)	\$124
KeyTronics	
ADB Keyboard (PCT/GS)	\$139
Magnavox	
CM135 Analog/Digital RGB Monitor	
(includes digital cable-IIe, GS)	\$289
(merades digital cable fie, 05)	
	Charles of the Charles of the Charles

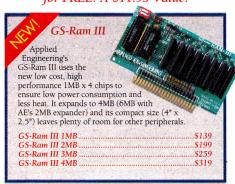


SOFTWARE & ACCESSORIES	
Battle Chess GS or Xenocide	\$31.95
New! Dragon Wars GS	\$34.95
New! Hover Blace GS	
New! Secrets of Bharas GS	
Space Ace GS	
Tetris	\$24.95
Applied Engineering Upgrades	
AppleWorks 3.0 Expander	\$15.00
New! Vulcan Gold-cache Upgrade	\$49.00
New! PC Transporter "v2.04"	\$15.00
New! ProDOS TimePatch	\$15.00
Beagle Bros.	
Platinum Paint	\$58.95
Brøderbund	
Bannermania	\$24.50
New! Printshop	\$29.95
Printshop GS	\$36.50
Central Point Software	
Copy II+ "v9 1"	\$27.50



Claris	
Appleworks 3.0	\$169.00
Appleworks GS	\$199.00
Glen Bredon	
Prosel 16 v8.7	\$74.95
PC Globe	
GeoQuiz GS, or Geo Puzzle IIe/GS	\$29.95
Seiko	
Watches (Ile, Ilc)	\$39.00
SoftSpoken	
Cross-Works 2.0	\$68.50
Software Toolworks	
Mavis Beacon Typing GS	\$32.50
Timeworks	
Special! Publish It! 4	\$89.95
WestCode	
New! Pointless GS	\$49.95
Ribbons	
Value Pack (5 ribbons)	\$14.50
Value Pack (3 ribbons)	

Special! -- Purchase \$50 or more of software and receive Copy II+ v8.4 for FREE! A \$11.95 Value!



Call Today For a FREE Catalog, or to Place Your Order:

1-800-327-7234





To FAX Your Order, Call 1-214-247-8151 Tech Support/Customer Service Call 1-214-484-5464

Three Reasons to Buy Preferred

15-Day Money Back Guarantee on hardware returned in new condition.

Sorry, no refunds on printers, monitors, CPUs or software. In-Stock Same Day Shipping. Items

ordered before 6:00pm CST weekdays ship the same day. UPS and Federal Express Next Day Service available.

We Carry Thousands of Name Brand
Items. Whatever your needs, we carry
a full line of name brand systems,
hardware and software.



©1992 Preferred Computing, Visa, MasterCard and COD orders accepted. Order by phone, mail or FAX. Institutional and Government Purchase Orders welcome. Special and 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 7.25% sales tax.

Continued from p. 31



erhaps all children's software should have a sticker on the box that says "Adult Supervision Recommended." Quality Computers' First Aid with Reddy definitely should — because it's talking about the health and safety of your child.

The software features "Reddy," an animated red cross, and Mr. Bungle, the victim of a distressing number of household accidents. The single-hi-res graphics images, while not state of the art, are cute, and the animation is lively and would captivate even preschoolers, although the program is obviously aimed at elementaryschool children.

The problem is that without explanation and supervision, a child too young to comprehend the program fully might get the idea that it would be neat to emulate the accident-prone Mr. Bungle, who in one sequence is shown drinking a bottle of household bleach. First Aid with Reddy can increase you child's "safety awareness," but this is one program best experienced with an adult standing by to tailor each situation to the child's environment.

GUARDIAN ANGEL

The software begins by emphasizing general safety practices before moving on to specific crises. The child is cautioned to "look around" for hazards such as teetering

and the like before doing anything else. Parents should discuss the potential danger of each situation with their children and reinforce the program's safety warnings.

First Aid with Reddy is basically a small, animated database. The main menu shows three selections: Emergency, First Aid Action, and Review. The Emergency screen brings up three more topics: What Is First Aid, Emergency Action, and Getting Help.

In What Is First Aid, the program explains the "ABCs" of first aid in greatly simplified fashion. Instead of Airway, Breathing, and Circulation, the software states that A stands for Awake. If the victim isn't "awake," the child is instructed to try to rouse him or her by "shaking or yelling." For a victim who has suffocated or broken his or her neck, however, that's less than desirable. The program would have done better to skip the letter A altogether and go directly to breathing and circulation. Here the software tells the child to get help at once if he or she hears no air moving or detects no heartbeat.

Getting Help features an animated phone that dials 911, then 0. Parents should go over this section with the child as to which emergency number is appropriate for their area. The program instructs the child to say, "This is an emergency call," and to tell the operator what happened and give the address. Good advice - as far as it goes - but children should be told to stay on the line so that emergency personnel can verify addresses and give instructions.

ON THE FRONT LINES

First Aid Action deals with specifics. Topics are choking, small cuts, big cuts, nosebleeds, animal bites, falls, electric shock, burns, and poison. In most cases, the first-aid advice is sound and appropriate for children. When Mr. Bungle chokes, the child is told to let him cough and get help right away. Good advice - no one expects an 8-year-old to do the Heimlich maneuver. The program should differentiate between small and large burns, however; advising the child to run cool water over the affected area and then cover it with a clean cloth is proper for minor burns, but inappropriate for serious ones.

The final part of the program is a review that may be too simplified. For example, objects, moving automobiles, stray dogs, * rafter telling the child earlier to call 911 or 0 for help, 911 is the only number mentioned in this section. The review lets you print results, but the hardcopy is too small and plain to be a completion certificate and may be misleading to boot.

For instance, when I contrived to give the wrong answers to 17 of 20 questions, the program responded, "Congratulations. You got 3 out of 20!" Perhaps that's carrying positive reinforcement a little too far.

Don't expect Reddy to equip your school-aged child to handle neighborhood emergencies like a member of the rescue squad. The purpose of this program is to give a child simple guidelines and to teach him or her the cardinal rule of medicine: First do no harm.

But for all its limitations, First Aid with Reddy can be a useful tool when supplemented by thoughtful input from parents. It can help build your child's confidence during emergencies - and it may even save a life.

Sharon Webb Blairsville, GA



he Berlin Wall and Soviet Communism have fallen and can't get up. Not so the blocks that descend in Spectrum HoloByte's Wordtris, a game that challenges you to orient a neverending cascade of letters into meaningful combiWeBuy Unwanted Surplus Items

ALLTECH ELECTRONICS CO.



APPLE | FOREVER! • THE POWER | BE YOUR BEST®

Apple Service Parts • Apple Chips & ROMs • RAM • SIMMs • Hard Disks • Peripheral Cards

Accessories

Accessories
Accelerators
Zip GS 7Mhz/8k cache\$149 Zip Chip //e & //c 8Mhz\$139
Peripheral Cards 5.25" Disk Controller (19 Pin)\$45.
5.25" Disk Controller (20 Pin)\$39.
Graphic Parallel Printer Card\$45. Super Serial Card\$52.
][+ 80 Column Card\$45.*
No Slot Clock\$23. [[+, //e & //c RAM Expansion
16K Language Card (][+)\$17.*
Extended 80 Col Card\$27. Super Expander //e 1024K\$105.
Super Expander //c 1024K\$119.
Super Expander][+ 1024K\$119.
RAM Chips & SIMMs
Expanding your Apple IIGS Memory Expansion Card, Æ RAMWorks or
Super Expander & compatibles.
41256\$1.50 ea. 768K Expansion Set for GS\$32.
Expanding your RAMPak 4GS Or Æ GS Ram Ultra
44256 \$6.00 ea,bank\$48.
Expanding your GS Juice Plus, Æ GS Ram Plus, Chinook 4000,
CV Tech or other like card
41024 (1 Meg) \$6.00 ea. Bank\$48. Expanding you OctoRam or GS Sauce
1024K SIMM\$41. SRAMs (For printer buffers & Cache)
6264(8k)-15\$6.00
<u>Monitors</u>
Apple Monitor /// (Refurb)\$49. Apple Monitor][(Refurb)\$49.
Monitor //c w/exch \$79\$95.
Color Composite (Not for 80 Col) \$79.* Comp. Green/Amber (Refurb)\$35.*
Blank Media
5.25" DSDD Disks100 for .\$17.
5.25" DSDD Disks.SAVE!.500 for\$78. 3.5" DSDD Disks50 for\$20.
3.5" DS (High Density)10 for\$8.50
Cleaning Disk 5.25/3.5\$1/\$2.50
Closeouts & Specials
AST VisionPlus Enhanced\$199
System Saver IIgs (Slight Blemish)\$45.*
System Saver IIgs (NEW)\$59.
Grappler LQ (24 Pin Mac Only)\$59.* //c Type Carry Case\$19.*
Joystick or Paddles (16 Pin)\$9.95
UPS 400-600 Watts\$199. Line Voltage Conditioner\$65
Mountain CPS Card (II+)
With ProDOS Clock Driver!\$39.*

1200 USR Ext. Modem NEW\$29.*

1200 Hayes External Modem\$29.*

2400 Baud External Modem\$59.*

School & University Purchase Orders Accepted! Cables & Switch Boxes We stock many older and hard to find items.

SCSI HARD DISKS

20 Meg SCSI	\$199.00	40 Meg SCSI	\$245.00
80 Meg SCSI	\$429.00	200 Meg SCSI	\$595.00
RAMFast Comp. T	ape Backu	ıp (Teac MT-2ST)	\$249.00
SCSI Case & Power			

All SCSI Drive prices are without SCSI Card, add \$39.00 for a CMS SCSI II, \$109 for an Apple High Speed SCSI Card or \$169.00 for a RAMFast SCSI Card. Prices are with purchase of hard disk. Sorry, SCSI Controllers are not sold separately.

FLOPPY DISK DRIVES

5.25" Full Height	.20 Pin	\$65.00	DB-19\$75.00
Apple Disk [(Refurbis	hed)	\$75.00	w/DB19\$85.00
//c Intnl Assembly \$89	0.00 Dis	k][> DE	319 Cable.\$14.00
DuoDisk 5.25" Exch.\$1	29.00 D	DuoDisk N	o Exch\$169.00
Apple 800K Exch\$13	35.00 A	pple FDH	D Exch\$249.00

Apple //c, IIGs & Laser 128 Need DB-19 Type Drives

IIGS RAM EXPANSION

GS Juice Plus, CV Tech. RAM & GS Sauce

GS Juice + w/1024K .. \$99.00 GS Sauce w/1024K . \$109.00 GS Juice+ w/2048K.\$139.00 GS Sauce w/2048K.\$145.00 GS Juice+ w/4096k..\$199.00 GS Sauce w/4096K .\$219.00 1 Meg Chip Set\$48.00 1 Meg SIMM.....\$41.00

Great Deals on RAM Expansion!!! We do repairs on most Apple Equipment, Visa & Mastercard accepted

Orders & Information: 619/721-7733

Fax Orders, P.O.'s:

619/721-2823

Alltech Electronics Co., Inc. 602 Garrison St. Oceanside, CA 92054

Hours: 10-7PM Mon-Fri, 10-5PM Sat

- CA Residents please add 7.75% Sales tax.
- Minimum shipping & handling charges \$5.00. (This covers most orders)
- Extra For Second Day, Next Day & Federal Express

 Warranty: Products designated by a "*" have a 90 day warranty, all others have 1 yr. from date of purchase.
- ALL Returns must have an RMA #, call before shipping back to us. No Returns without an invoice. S&H charges are non-refundable
- Keyboards, power supplies, print heads & service parts may be subject to exchange only.
- Some RAM chips may be new but pulled. All RAM chips have a 1 year warranty.
 20% Restocking charge, applies to products purchased in error & incompatibility.
- problems. Please be sure what computer you have when placing an order. School & University Purchase Orders accepted, others on AOC only.
- C.O.D. Orders are Cash or Cashiers Check.
- · Personal Checks require 7-10 days to clear Before orders are shipped.
- Prices and availability subject to change at anytime without any notification whatsoever.
- Some products may be used, but are fully tested. Inquire at time of purchase for details.

A/B Switch Boxes \$19.00 A/B/C Switch Boxes \$29.00

PC Transporter Accessories

Keyboard	84key/101key	.\$39/\$59.
8087 Math	CoProcessor	\$35

Service Parts

Apple //e Specific Chips MMU or IOU 342-0010/0020\$29. CD/EF ROM 342-0134/0135......\$19. 6502 (CPU, Unenhanced).....\$3. 65C02 (CPU, Enhanced).....\$9. Video ROM 342-0133/0265\$19. HAL 342-0170.....\$19. Keyboard Map 342-0132\$19. AY3600 Pro (Kybd Encoder)......\$29. Apple //c Specific Chips MMU or IOU 342-0011/0021\$29. Mon ROM 342-0272..(no 3.5")\$19. ROM, 3.5" Upgrade 344-0033......\$29. 65C02 (CPU, Enhanced).....\$9. Video ROM 342-0265\$19. GLU or TMG 342-0170\$19. Keyboard Map 342-0132\$19. AY3600 Pro (Kybd Encoder)\$29. IWM 341-0041 (Drive Port)\$29.

Apple][+ & IIGS Specific Chips Call for availability.

Keyboards & Mice

//e or //c kybd Exch. Only	\$65.*
][+ or Mac 128/512 kybd	\$29.*
][+ Keyboard Encoder	\$14.*
IIgs ADB Mouse Exchange only.	\$59
Power Supplies	

][+ or //e P/S \$45 w/exch......\$35. IIGS P/S\$69.00 w/exch......\$59.

//c External\$39 Internal\$29.	
<u>Motherboards</u>	
//e or //c MLB \$169w/exch.\$139.	

][+ MLB\$49.* Printer Heads

ImageWriter I, C-Itoh, Apple DMP
NEC 2200w/exchange\$59.
ImageWriter II exchange only\$89.
Some Epson heads AvailableCall
Other ImageWriter I/II PartsCall

Apple Cases

//e or //c	\$35.
][+ or Mac 128/512	\$29.

Refurbished Printers

ImageWriter I / II	\$199. /	\$299.*
ImageWriter I Wid	de Carriage	\$199.*
Various 9 Pin Para	llel Printers	\$95.*

nations. You earn points for each vertical or horizontal word you form before the game's well becomes swamped with orphaned letters. As you create words, submerged letter blocks float back to the top of the well, giving you (unlike Lenin) another chance.

Wordtris, which shares more than a few features with the classic board game *Scrabble*, is another entry in Spectrum HoloByte's Russian-born falling-blocks line-up. Countless computer gamers have already succumbed to the addictive allure of Tetris, Welltris, and Faces. Wordtris, in which each block sports a letter of the alphabet, is unquestionably more literate than any of its predecessors. But whether Wordtris is truly educational is a tough call.

Like Scrabble's wooden blocks, Wordtris' electronic ones carry point values. Wordtris occasionally throws in a "blank" you can transform into any letter you choose — just press the appropriate key. From time to time the game also drops "bonus blocks." If you use the letter immediately to create a

word, you score double — just as in *Scrabble* when you cover a pink square.

Wordtris recognizes legitimate words by comparing the ones you create to its large built-in dictionary. The back of the game box claims that the Wordtris dictionary contains 30,000 words, but a sticker on the cover says "over 60,000 words." Whichever it is, Wordtris recognized 99 percent of the words I created. You can also add words to a user dictionary if you like.

Not only did Wordtris award points for words I created intentionally, it gave points for those I stumbled into. Sometimes you might just as well let blocks fall where they may. They land on top of others and sink to lower levels in the well; without any strategy or skill on your part, additional words often form automatically. Somehow collecting points this way doesn't seem right.

Wordtris offers four modes: *Children's*, *Novice*, *Advanced*, and *Expert*. As you increase the difficulty, the letters fall faster, and you must create longer words. Each mode has ten levels, A to J. At first, it's

easy to advance from one level to the next. To get from A to B, for instance, all you have to do is create five words. But F to G means amassing a total of 105 words.

In addition to its difficulty modes and challenge levels, Wordtris provides still other ways to up the ante. For one thing, you can turn off the next-letter display. You won't get any warning about the upcoming letter's identity, but playing with next-letter off adds 25 percent to each word's point value. You can also limit each game to two, five, ten, or 15 minutes.

If you tire of playing Wordtris alone, you can play the game cooperatively or competitively with a friend, or start a *Tournament* with up to three other players. You can also play *Head-to-Head* on line — remotely by modem or tethered to another Mac in the same room via a standard ImageWriter II serial cable. If you play with a friend on a single Mac, one of you must use the keyboard while the other uses the mouse (or a joystick).

The Wordtris package includes both black-and-white and color versions of the game. It plays the same either way, but the black-and-white version runs a distant second to its color counterpart — a visual delight featuring photorealistic graphics. (The rating above is a composite score.) Entertaining sound effects and Russian-style music add another enjoyable dimension.

Wordtris probably won't increase your vocabulary. The program should at least offer a print option to create hardcopy word lists. A real dictionary (that is, one with definitions) would be even better, adding significant value to this otherwise pricey diversion. As it is, if you win points for an unfamiliar word that's formed happenstance, your best bet is to call a time-out (use the game's *Pause* feature), write the new word on paper, and look it up later.

Wordtris is no more — and no less — educational than ordinary word games of this kind. Although the black-and-white version features the same multilevel game play and musical appeal, it can't compare to color Wordtris' graphically rich environment. Is it worth \$50 to run a colorless and not-very-educational word game on a black-and-white Mac? Only you — and your software budget — can decide. □

Cynthia E. Field, Ph.D. Wakefield, RI



Free

Product Info

Want to
Know More
About Products Or
Services Advertised
In This Issue?

DIRECT TO YOU AT NO COST OR OBLIGATION

Title

Here's How.



- Print your name and address where indicated.
- Tell us about yourself by answering the questions.
- Circle the numbers on the card corresponding to the reader service number for products or services that interest you.
- Tear out and mail the card.
- ♦ Subscribe to inCider/A+ by checking off the □ where indicated. We'll bill you \$27.97 for 12 issues of inCider/A+.*
 That's 40% off the cover price. Look for your subscription in 6-8 weeks.

NO OBLIGATION. Literature on products and services will be sent to you directly from advertisers, free of charge.

* This rate is limited to the U.S. and its possessions.

I What computer do buy in the next 3 m		nd/or plan to
	Use	Plan to buy
Apple II	□ 1	□ 4
Macintosh	□ 2	□ 5
IBM/MS-DOS	□ 3	□ 6
Which model?		
Apple IIss	□ a	□i
Apple Ile/c/c Plus	□b	
Mac SE/Mac Plus	□ c	□k
Mac Classic	□ d	
Mac LC	□ e	□ m
Mac SE/30	☐ f	□ n
Mac II series	□ g	□ o
Other computer	□h	□ p

inCider

June issi	ue		nue												
Valid un	til		Addr	ess_											
igust 15,	1992	!	City						_Sta	te _		z	ip		
			Phon	ie ()										
or plan to			Che You												A +.
Plan to buy 4 5 6 i	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68	76 77 78 79 80 81 82 83 84 85 86 87 88 90 91 92 93	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117	126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143	151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167	176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193	201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219	226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244	251 252 253 254 255 256 257 258 260 261 262 263 264 263 264 265 266 267 268 269	276 277 278 279 280 281 282 283 284 285 286 287 288 299 291 292 293 294	301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317	326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345	351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369
□ p	20 21 22 23 24 25	45 46 47 48 49 50	70 71 72 73 74 75	95 96 97 98 99 100	120 121 122 123 124 125	145 146 147 148 149 150	170 171 172 173 174 175	195 196 197 198 199 200	220 221 222 223 224 225	245 246 247 248 249 250	270 271 272 273 274 275	295 296 297 298 299 300	320 321 322 323 324 325	346 347 348 349 350	370 371 372 373 374 375



Il Are you an educator?

June issue Valid until August 15, 1992

Name			
Title	N-02		
Address			
City	State	Zip	
Phone ()			

I What compute buy in the nex		nd/or plan to
Annia II	Use	Plan to buy
Apple II	L.J 1	4

	Use	Plan to buy
Apple II	□ 1	□ 4
Macintosh	□ 2	□ 5
IBM/MS-DOS	□ 3	□.6
Which model?		
Apple IIss	□ a	□i
Apple Ile/c/c Plus	□ b	□ j
Mac SE/Mac Plus	□ c	□ k
Mac Classic	□ d	
Mac LC	□ e	□ m
Mac SE/30	☐ f	□ n
Mac II series	□ g	□ o
Other computer	☐ h	□ p

Yes 🗆 a

٦	
	Check here to start your subscription to inCider/A
	You will be billed \$27.97 for 1 year (12 issues).*

						2000								
1	26	51	76	101	126	151	176 177	201 202	226	251 252	276 277	301 302	326 327	351 352
2	27	52	77	102	127	152			227					
3	28	53	78	103	128	153	178	203	228	253	278	303	328	353
4	29	54	79	104	129	154	179	204	229	254	279	304	329	354
5	30	55	80	105	130	155	180	205	230	255	280	305	330	355
6	31	56	81	106	131	156	181	206	231	256	281	306	331	356
7	32	57	82	107	132	157	182	207	232	257	282	307	332	357
8	33	58	83	108	133	158	183	208	233	258	283	308	333	358
9	34	59	84	109	134	159	184	209	234	259	284	309	334	359
10	35	60	85	110	135	160	185	210	235	260	285	310	335	360
11	36	61	86	111	136	161	186	211	236	261	286	311	336	361
12	37	62	87	112	137	162	187	212	237	262	287	312	337	362
13	38	63	88	113	138	163	188	213	238	263	288	313	338	363
14	39	64	89	114	139	164	189	214	239	264	289	314	339	364
15	40	65	90	115	140	165	190	215	240	265	290	315	340	365
16	41	66	91	116	141	166	191	216	241	266	291	316	341	366
17	42	67	92	117	142	167	192	217	242	267	292	317	342	367
18	43	68	93	118	143	168	193	218	243	268	293	318	343	368
19	44	69	94	119	144	169	194	219	244	269	294	319	344	369
20	45	70	95	120	145	170	195	220	245	270	295	320	345	370
21	46	71	96	121	146	171	196	221	246	271	296	321	346	371
22	47	72	97	122	147	172	197	222	247	272	297	322	347	372
23	48	73	98	123	148	173	198	223	248	273	298	323	348	373
24	49	74	99	124	149	174	199	224	249	274	299	324	349	374
	50	75	100	125	150	175	200	225	250	275	300	325	350	375
25	30	75	100	120	100	1/0	200	223	200	2/3	300	323	330	3/3

Free Product In

DIRECT TO YOU AT NO COST OR OBLIGATION



PLACE STAMP HERE

inCider/A+

ATTN: Reader Service Dept.

P.O. Box 8987

Boulder, CO 80329-8987

Unhthandladdhhafabldabhhahlfal

ԱյլիՈրումեուկիիոնդինոկորկիչուննու



PLACE STAMP HERE nto

Want to
Know More
About Products Or
Services Advertised
In This Issue?

Here's How.



- Print your name and address where indicated.
- Tell us about yourself by answering the questions.
- Circle the numbers on the card corresponding to the reader service number for products or services that interest you.
- Tear out and mail the card.
- ◆ Subscribe to inCider/A+ by checking off the □ where indicated. We'll bill you \$27.97 for 12 issues of inCider/A+.*
 That's 40% off the cover price. Look for your subscription in 6-8 weeks.

NO OBLIGATION. Literature on products and services will be sent to you directly from advertisers, free of charge.

*This rate is limited to the U.S. and its possessions.

inCider/A+

ATTN: Reader Service Dept.

P.O. Box 8987

Boulder, CO 80329-8987-

READER SERVICE

	Rea	der Service	Page
	103	Alltech Electronics Co., Inc	55
	*	Applied Engineering	CV4, 29
	64	Arminius Publications	
	87	Bible Research Systems	60
	151	Big Red Apple	6
	19	Big Red Apple	59
	45	Caloke Industries, Inc	63
	47	Christella Enterprises	63
-	21	Co-Du-Co	61
	15	Don Doumakes	63
	43	Econ Technologies	61
_	220	Educational Resources	9
-	*	GE Ridge Services	60
****	*	HyperTalking	62
	*	inCider/A+	
-		Appleworks Productivity Pack	57
	70	Island Computer Supply	60
	32	Jovian Software	61
	44	LRO Computer Sales	32,33
	*	M.P. Computer Micro System	63
	248	Memory Plus Distribution	48
	50	Moonlight Software	63
	16	OEM Corporation	61
	59	Perfect Solutions	63
	*	Preferred Computing	53
	269	Public Domain Exchange	
	136	Quality ComputersCV2, 2, 3, 4	, 5, 23, 49
	39	Quinsept, Inc	61
	7	Ramco Computer Supplies	60
1	33	Remarkable Technologies	
	38	Resource Central	
-	49	Robert Merrill	63
	90	Roger Coats	16, 17
	77	Secur Tech Company	
-	29	Shreve Systems	61
-	291	Softdisk	1
	127	SoftSpoken, Inc	
	23	Software of the Month Club	
	30	Sound Management	
	36	Sun Remarketing	
	56	TMS Peripherals, Inc	
	231	Tulin Technology	
	297	USA Micro	
	17	VMC Marketing Technologies	
	99	Westcode Software	19

Order now and save \$10 or more!

Get the power of AppleWorks working for you with . . .

AppleWorks Productivity Paks

At last, all the power of AppleWorks without all the work!

Improve your personal productivity while you become an AppleWorks pro with AppleWorks Productivity Paks*. The AppleWorks Productivity Pak series was created by Cynthia Field, *inCider/A*+ "Press Room" columnist, exclusively for *inCider/A*+. These ready-to-use templates save time and simplify tasks while you use AppleWorks to its fullest potential. Whether you use AppleWorks 3.0 or AppleWorks GS, these outstanding collections are for you!

- Pin down travel expenses with Auto-Mileage Log
- Automate your group's membership files with Membership Organizer
- Compare housing options with Home Buyer's Guide
- ▼ Build your desktop-publishing skills with Booklet
- and much, much more with the AppleWorks Productivity Pak series.

Easy to use! Each project includes a blank template plus a sample template that you can put through its paces before you tackle your own version! Also, you get an extensive manual to guide you step-by-step through each project.

Special Savings! Save \$10 off regular price! Regularly \$29.95 each. **Now just \$19.95!** 10 templates per Pak! That's less than \$2 per template! Or buy two and save more!

FOR APPLEWORKS 3.0 USERS!

Appleworks 3.0 Productivity Pak 1*

Appleworks 3.0 Productivity Pak 1*

Inventory Organizer • Nutricatc

Inventory Organizer • Nutricatc

Membership Organizer • Checkbook

Membership Organizer • Checkbook

Membership Organizer • Checkbook

Membership Organizer • Checkbook

Mail-Merge Postcard • Checkbook

Mail-Merge Postcard • Checkbook

Manager • Home Construction

Desktop Publisher

Desktop Publisher

Appleworks 3.0 Productivity Pak II*

Eamily Tree • Videotape Booklet

Family Tree • Videotape Booklet

Family Tree Comparison • Booklet

Car-Cost Comparison • Cookbook

Custom Calendars • Cookbook

Home Buyer's • College Guide

Income Taxes • College

FOR APPLEWORKS GS USERS!

AppleWorks GS Productivity Pak I**
Memo Pads • Name Badges
Membership Organizer • Nutridata
Merge Document • Résumés
Auto-Mileage Log • Checkbook
Budget • Newsletter

AppleWorks GS Productivity Pak II**
Family Tree • Videotape Library
Car-Cost Comparison • Booklet
Custom Calendars • Cookbook
Home Buyer's Guide • Living Will
Income Taxes • College Guide

Order Today!
For Imm

*Requires AppleWorks 3.0. **AppleWorks GS v. 1.1.
AppleWorks is a registered trademark of Apple Computer,
Inc., licensed to Claris Corporation.

H₂₆₅AA

For Immediate Service Call Toll-Free

1-800-582-7006(Outside US and Canada: 1-410-543-2908)

YES! I want to get the power of AppleWorks working for me!	AppleWorks 3.0 Productivity Paks* Volume I (#5011) Ust \$19.95 Each
Address	☐ Volumes I & II (#5905) Just \$35.95
City State Zip	
☐ Payment enclosed (payable to A+ Special Products)	AppleWorks GS Productivity Paks**
Charge my: \square Visa \square MasterCard \square Discover \square American Express	☐ Volume I (#5021) Just \$19.95 Each
Card # Exp. Date	☐ Volume II (#5022)
Signature	☐ Volumes I & II (#5904) Just \$35.95
California residents: add 7.25% sales tax. Canadian orders: add 7% GST (#1 Foreign orders must be paid in U.S. funds drawn on a U.S. bank.	26038405). Foreign air mail: add \$3.95.

A+ Special Products P.O. Box 1641, Salisbury, MD 21801



MACRO MANIA

A definition here, a shortcut there — our information swap can help you stay one step ahead of frustration.

By WILL NELKEN

CELL EDITOR

Frustration! Ever made a typo while entering a lengthy revised formula in an AppleWorks spreadsheet cell? When you press Return, your computer beeps and the whole new entry disappears. The solution is to capture it before pressing Return, when you risk losing all, and that's where UltraMacros and its cell command come in. Cell reads into memory (\$0) the current line of an AppleWorks word-processing file (AWP), the current category contents of a database file (ADB), or the current cell of a spreadsheet file (ASP).

If your "rememberer" is in good shape, you can perform this manually (Ultra-Macros installed) when editing a spread-sheet cell. Place the cursor bar on the cell whose formula needs adjustment and press OA-U (Open apple-U) to edit. The original formula will appear on screen just above the bottom line.

For demonstration, enter a formula you know AppleWorks will reject because of incorrect syntax. Press Open apple-Hyphen, which carries out the *cell* command, storing the new formula temporarily in memory. Then press Return. AppleWorks will beep and the original formula will reappear. Now press OA-Y to "yank" the original formula off screen, and SA-0 (Solid apple-zero) to write the contents of \$0 to the screen. Your bungled formula should reappear for editing, without retyping the whole thing.

My "forgetter" is often better than my "rememberer" on such occasions, however, so I use a macro whenever I'm editing a spreadsheet cell. Instead of pressing OA-U to edit a cell, I press SA-U (Option-U). Cell Editor (Listing 1) automates the safety device described above. Using the *cell* command, it captures the edited entry in macro memory (\$0) before you enter a return. If you mistype a formula, just press OA-Y to erase the old entry, and SA-0 to restore the new one from memory for repair.

EYE SAVERS

Some macros put the computer through its paces, flipping screens and menus more rapidly than you can read them. It's awesome at first, but it can also get annoying. UltraMacros' display commands offer a solution. **Display #off** freezes the current

screen, while macro action continues behind the scenes. **Display #on** restores it.

When "unfreezing" the screen, you must perform some standard AppleWorks action that forces your computer to redraw (refresh) the screen, bringing the "live" display back. When freezing an open file display, you might try using OA-Q Escape, which calls the *Desktop Index* and chooses the current file again, or Escape Escape, which accesses the main menu. If you choose to freeze a display, any action that leaves it momentarily and then returns will do.

Listing 2's macros demonstrate proper use of *display* commands. They preserve the screen's appearance while saving the desktop file in the background; your work won't disappear while AppleWorks saves the current status of your file.

Notice that the first macro uses the labels #off and #on to direct the display commands. The second uses the values of those labels, 0 and 1, to accomplish the same effect. You can use macro labels and their values interchangeably. UltraMacros' Compiler converts labels automatically to their values, but it's easier to read your own source code (the word-processor macro file) if you use labels.

Keep in mind that UltraMacros' read and find commands require an active screen display. If it's frozen, your macro will fail. Always write and debug your macros before adding display commands. Because you can't use them in every situation, make sure your macro is working properly before you try freezing the screen.

```
U:<asp: { limited to the spreadsheet } oa-U: { enter the editing mode } input: { allow user input up to "RTN" } cell: { capture completed input in memory before } { ...passing the "RTN" on to AppleWorks } rtn>! { exit editing mode } }
```

Listing 1. Cell Editor preserves the contents of your spreadsheet cell during editing.

Listing 2. Eye Savers' macros freeze and restore AppleWorks screen action.

Exclusive Source for the Best IIGS Programs

Hardball*



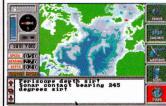
Hardball™: This baseball simulation puts you on the field and in the dugout as both player and manager. Hit and run, steal, sacrifice, go for double plays, juggle player line-ups and much more. Each field has 3-D perspective and full-size animation. A joystick is required. Order product number FL72 for only \$15 for non-members or \$10 for members.

The Duel: Test Drive II



The Duel: Test Drive II™: Race the Ferrari F40 against the Porsche 959, the world's fastest production cars. You can also go against the clock, race through picturesque scenery and contend with road hazards (including the police). A joystick is recommended and 1 Megabyte is required. Order product number FL73 for only \$20 for non-members or \$15 for members.

The Hunt for Red October



The Hunt for Red October ": In this game, based on Tom Clancy's novel, your mission as commander of the Soviet nuclear submarine is to defect, evade the rest of the Soviet navy and sail west to America. It features first-person battle views. Up periscopel Order product number SF56 for only \$15 for non-members or \$10 for members.

Mixed-Up Mother Goose



Mixed-Up Mother Goose™: This game is for preschoolers and up. It puts children in the role of a hero as they try to repair broken nursery rhymes. When a rhyme is repaired, it comes to life with great animation and music so that children can sing along. Help Jack Sprat and Peter Pumpkin Eater! Order product number SL64 for only \$20 for non-members or \$15 for members.

Deia Vu



Deja Vu – A Nightmare Comes True™: A graphic adventure in which everything seems vaguely familiar, yet you remember nothing. There's only one person who can control the outcome of this mystery. Only you can clear yourself of the murder charges. The clues are there but can you piece them together? Product number MP54 is only \$15 for non-members and \$10 for members.

Vegas Gambler



Vegas Gambler": Four exciting games to play: Blackjack, Roulette, Video Poker and the Slot Machine. Experience the thrill of Las Vegas and see if you can break the bank. This program has excellent graphics and great sound effects. You won't want to miss it! Order product number CD52 for only \$15 for non-members or \$10 for members.

Fastbreak



Fastbreak™: This basketball simulation features three-on-three, full court action with pro-style plays and television court perspective. Choose from a playbook of pro-style offenses and defenses. Shoot 3-point bombs, soft jumpers or slam dunks. A joystick is required. Order product number FL71 for only \$15 for non-members or \$10 for members.

Jack Nicklaus Golf



Jack Nicklaus' Greatest 18 Holes of Golf": A golf simulation game in which you play against the master himself, Jack Nicklaus. There are 3 different 18-hole courses you can play. Choose skins scoring or stroke play. Contend with the effects of wind direction and intensity. Product number FL70 is only \$25 for non-members or \$20 for members.

Zany Golf™



Zany Golf": This is what the GS computer is all about. Great graphics and sound. Each zany hole is a challenge and has its own theme. There's a pinball game, a bouncing hamburger hole, a hole that is constantly moving and a journey into Dr. Frankenstein's laboratory. Can you reach the bonus hole? Order product number EA63 for \$25 for non-members or \$20 for members.

4th & Inches



4th & Inches™: Features the hard-hitting action of real football including the bombs, the blitzes and the goal line stands. Choose your lineup and your play selections carefully and you'll have a good chance of winning. Experience graphics and animation as riveting as a blind side hit. Order product number FL74 for only \$20 for non-members or \$15 for members.

Thexder"



Thexder[™]: This action arcade game comes directly form Japan. You must pilot a robot through multiple attack scenarios. The robot transforms into a fighter jet (and back again) at the touch of a button. You'll have to use all your skills to reach the advanced levels. A joystick is required. Order product number SL59 for only \$20 for nonmembers or \$15 for members.

Apple Ile/IIc Software

The following programs are on 5.25" disks and require 128K lle or llc and a joystick. Prod# Name Price The Black Cauldron **HW06** . \$25 BR09 Cross Country Road Race .. 20 Dragon Wars .. IP07 15 HW07 Gold Rush 25 Hitchhiker's Guide to the Galaxy . **BR17** 15 HW01 King's Quest I 25 King's Quest IV HW04 25 **BR16** The Last Ninja 15 Mixed Up Mother Goose ... HW14 20 HW05 Police Quest 25 IP08 Neuromancer 12 Rampage! ... 20 **BR01** 20

Space Quest - The Sarian Encounter .

Yeager's Advanced Flight Trainer ..

25

15

15

Free Shipping to U.S. and Canada Fast Service. Order by Fax (402) 379-3361 MasterCard or Visa Accepted

Prices quoted in this ad are for non-members of the Big Red Computer Club. Member prices are even cheaper! Member prices are from \$2 to \$10 less per title. You can become a member for only \$19.95 and save Big Bucks. Plus you'll receive twelve issues of our great newsletter called Scarlett. School purchase orders accepted.



423 Norfolk Avenue, Norfolk, NE 68701

Manhunter - New York™



Manhunter – New York™: You, the villian are trapped in a violent world where evil is rewarded and goodness despised. Terror lurks around every corner as you travel through a "new" New York in this tale of Orwellian horror, humor and suspense. Challenge a deadly arcade game or battle a gang of street punks. Product number SL58 for \$20 (non-member) or \$15 (member).

Other Great Apple IIGS Programs

HW11

HW09

FA46

BR08

Zork Trilogy

١	Other	al c	at Apple III	GJ	riogianis	
١	Airball	\$20	Dungeon Master	\$25	Mavis Beacon Typing	\$20
	Balance of Power 1990	\$20	Fire Power	\$20	Music Studio 3-Pack	\$39
	Bard's Tale I or II	\$20	GBA Basketball	\$20	Neuromancer	\$15
	Black Cauldron	\$25	Gin King/Cribbage King	\$20	PaintWorks Gold 3-Pack	\$39
	Blackjack Academy	\$20	Gnarly Golf	\$9	Pirates!	\$15
١	Blockout	\$20	Gold Rush	\$25	Police Quest	\$25
١	Bubble Ghost	\$15	Great Western Shootout	\$15	Serve and Volley	\$20
١	Captain Blood	\$20	The Immortal	\$30	Shadowgate	\$15
١	Cartooners	\$15	Instant Music	\$15	Shanghai	\$20
١	Chessmaster 2100	\$20	Instant Synthesizer	\$20	Smart Money	\$45
١	Clip Art 3-Pack	\$30	Jigsaw!	\$15	Space Quest I or II	\$25
١	Club Backgammon	\$10	King's Quest I, II, III or IV	\$25	Task Force	\$25
١	Crystal Quest	\$20	Keef the Thief	\$20	Transylvania III	\$12
١	Deja Vu II: Las Vegas	\$15	Laser Force	\$15	Triango	\$10
١	Deluxe Paint II	\$15	The Last Ninja	\$20	Tunnels of Armegeddon	\$20
1	Dragon Wars	\$30	Life & Death	\$20	Xenocide	\$23

For Free Catalog and To Order - Call Now! - (402) 379-4680

The Marketplace



Free Catalog

When it comes to used Apple's, we're the best. As the Nation's largest buying force, we stock over \$1 million in used computers, unmatched anywhere and at the lowest prices around. When we say refurbished, that's exactly what we mean, not wipe and send. Our quality control department assures you the best machine available for the money-or your money back-guaranteed.

Call Anytime

1-800-821-3221

Circle 36 on Reader Service Card

Fax: 801/755-331

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 condcordances 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

Circle 87 on Reader Service Card.



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

your one source for initial discount music-MIDI products Apple II, GS. Mac, IBM, Amiga, Atari. C64

SOUND MANAGEMENT

Electronic Music Products P.O. Box 3053 Peabody, MA 01961

800-548-4907 and 508-531-6192

MIDI Buying Guide/Ed. Catalog \$3.00

•Refundable with order•

Check • MO • School PO • Canadian Welcomed

Mulli-track sequencing software: MasterTracks Pro GS 395, Jr GS 195 li-tle Glasstracks 88, Dr Ts KCS 159, MusicWriter GS 88, 199, lie 199 MID Instr Designer GS 899. GS/Ile Starter Pack: Sequencer, Notation 2 Cables, MiDI Interface 399, MiDI Interface 1x3 GS/Mac 88, ff+ lie, 89 MID + Mac Starter Pack: Sequencer, Notator, Interface, 2 Cables 259 Vision 349, Finale 544, Band'n Box 79, Encore 369, Trax 85, Beyond 155 3-93 - Inale 3-44 - Janoth Box 7 - Brooke 3-95 - It ax 65 - Beyond 1-56 Performer/Composer 379 + More Books - Apple MIDI Ref. 19, MIDI User Dict. 17, Caslo Guide 19, MIDI Mac 19, Music MIDI Ed Learning Series: MIDI Fingering, Chords, Scales 39-79. MIDI Cables 8. All Kawai-Casio Keyboards 399-699, MarchingBand Software. Need Help.-Please CalliOpen Weekends-Intro Pacs: MIDI + Keyboard + Software Mac-GS-Ile

Circle 30 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 Apple Image, II 4 -Color	\$3.75	\$4.50 \$5.95	\$6.50 \$10.00		
CitizenGSX140	\$4.00	\$5.00	\$7.50		
CitizenGSX140, 4-Color		\$12.50	\$15.00		
Epson MX-80	\$3.75	\$4.50	\$6.75		
Okidata 182/192	\$5.00	\$7.50			
Panasonic 1180/1124	\$5.00	\$7.50			
Star NX 1000	\$3.50	\$4.50	\$6.75		
Star NX 1000, 4-color		\$6.25	\$10.00		
Star NX 1020 4-color	\$6.00	\$10.50	\$15.00		

T-Shirt (Heat Transfer) Ribbons Colors: Black, Red, Blue, Green, Brown, Purple, Yellow

COLOR PAPER 200 Shts assorted $9^{1}/_{2} \times 11$ \$10.90/pk 9¹/₂ x 11 100 sheets Pastel Pack: \$7.90/pk Color Certificate Paner: \$9.95/pk \$8.95/roll Color Banner Paper: 45 ft/roll Holiday Paper: 50 sheets

Min. orders: \$25.00. Minimum S&H: \$5.00. Call for other ribbons and supplies. Price and spec. are subject to change w/o notice

RAMCO COMPUTER SUPPLIES

USA 800-522-6922 orUSA 815-468-8081(Canada) 800-621-5444

Circle 7 on Reader Service Card.

FACTORY FRESH RIBBONS

Ribbon	Black	Color
Apple Imagewriter I, II	\$2.25	\$2.95
Imagewriter II-4 Color		\$4.95
Imagewriter II- Heat transfer (Black and 4C)	\$4.50	\$9.95
Imagewriter LQ – (Black and 4C)	\$8.95	\$13.95
Applescribe	\$7.95	
Panasonic 1124	\$3.50	
Epson MX/FX/RX80	\$2.50	\$3.50
Epson MX/FX/RX100	\$3.50	\$4.00
Star NX1000	\$3.25	\$3.95
Hundreds more		

For Orders of less than 6, please add 75¢ each. Colors (BLUE, RED, GREEN, PURPLE)

CUSTOM COLORS AVAILABLE

- PREMIUM IS ALL WE SELL! - MONEY BACK GUARANTEE -

Shipping/Handling \$4.75 per order (over \$75 we pay S/H). AK, HJ, P.R., APO/FPO, Canada add 15% S/H (minimum \$6) to all orders. NY residents please add sales tax. School, hospital and govt. NET30 PO's welcome

ISLAND COMPUTER SUPPLY

305 Grand Boulevard Massapegua Park, NY 11762 (516) 798-6500 • (516) 798-4695 (FAX)



Circle 70 on Reader Service Card.

Color Paper:

Bright Pack:

CROSS-WORKS 2.0 can exchange AppleWorks data files with the most popular MS-DOS programs:

AppleWorks (Microsoft Works AppleWorks Word Proc. (WordPerfect AppleWorks Spreadsheet (a) Lotus 1-2-3 AppleWorks Data Base (dBase III, IV, etc.

In seconds, CROSS-WORKS copies files either way between your Apple II and IBM PC, and translates the file formats. Word Processor files maintain underlining, margins, centering, etc. Spreadsheets transfer data and formulas! Transfers ASCII text files too. Includes universal 19.200 band cable to connect I/e (with Super Serial Card). IIc, IIcPlus & IIgs to PC, XT, AT, PS/2 & compatibles. Also supports modem transfers. Both 51/4 and 31/2 inch disks included.



Compatible!

"…Look no further. SoftSpoken's CROSS-WORKS carries the biggest stick in the file translation/ transportation business… **Rating:** ★★★" — **InCider** July, 1989

CROSS-WORKS TM \$99.95 + Shipping & Hand. 30 Day money-back guarantee! School P.O.s welcome

2 (919) 870-5694 for free information

Soft Spoken P.O. Box 18343 Raleigh, NC 27619

Circle 127 on Reader Service Card.

THE MARKETPLACE

It all started as the ultimate Mac trivia game and became the ultimate Macintosh learning tool!

✓ Create your questions!

- ✓ Pictures & sounds!
- √ 5 different games!
- √ 2 "study" modes.
- ✓ Play solo, or with friends.
- ✓ Online testing.
- ✓ Review your progress.
- ✓ Requires Mac+ or newer.

"...a pick of the show." MacWorld April, 1991



Special offer: \$59.95 complete. \$39.95 for the game + \$4.50 P&H To order 800-742-1978 VISA · MC Info 305-768-9948

Circle 32 on Reader Service Card.



Circle 43 on Reader Service Card.

FREE - 15 DISKS - FREE **FULL OF GREAT SOFTWARE**

TRY US! Get our bestselling VIRUS FREE software. 15/5.25" disks or 6/3.5" disks for Apple][/GS or Mac. Games, Religion, Graphics, Utilities, & Education. Fonts & Hypercard for Mac. Credit cards only!

PAY ONLY \$5.00 FOR SHIPPING satisfaction guaranteed since 1985

MACINTOSH · APPLE | APPLE GS

SMC SOFTWARE PUBLISHERS **ORDER TODAY - CALL**

619 931-8111 EXT 511

Circle 23 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, name indices, general search and text capab-

Put up ilities. Adapts to most disk drives, printers, and screens. Includes a

YOUT comprehensive manual. dukes! 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.



- 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
- 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.

Computers/Parts/Repairs! Your #1 Source for Apple® Parts & Upgrades!



School and Government P.O's accepted!

Specials

LC/ lie Emulation board	\$99
ligs upgrade kit	219.
Applied Eng. Datalink 1200 modern	49
ligs RGB monitor (genuine Apple)	229
Apple Mono monitor (latest version)	49
Comrex 12" color monitor	89
Apple personal modem 1200	. 49
3.5 Unidisk	139
Macintosh Plus	529
lic monochrome monitor	66
Imagewriter I	199
Mac Portable, 2-meg RAM, 40-hard drive	999
lie Enhancement Kit (upgrade ROM set)	29
II+ replacement keyboard	26
Macintosh 800k external (Fujitsu)	
II+, Ile Disk II controller	35
ligs 256k memory expansion board	
lie 64k/80 col board	

Repairs

99.
99.
99.
99.
99.
75.
75.
49.

Parts 'n-Stock!

Special of the Month!

Apple® LocalTalk board for MS-DOS machines (List \$299.) Sale \$99. Call for Catalog!

Circle 29 on Reader Service Card.

Tan

Red



100% Fabric Dust Covers

Heat Ventilating, Unlike plastic, and Won't Dry Out, Yellow or Crack with age!
 Highest Quality, Custom-Fit Designs!
 For Apple, MAC, IBM, Compaq & many more!
 Custom orders!
 Monogramming and Sitk-screening Available!
 100% Satisfaction Guarantee!
 Service since 1983!

100% Satisfaction Guaranteer	Service since	1985					
1062			gs, RGB Mon & Kbd.	2955	95-24 Laser	128 CPU.	15.95
10-87		gs, KSS, RGB & Kbd.	2955	10-60 Apple 3.5	Drive.	6.95	
10-87		gs, KSS, RGB & Kbd.	29.95	10-60 Apple 5.25	Drive.	6.95	
10-87		gs, Keyboard Only.	6.95	10-59.35 on top 5.25	9.95		
10-67		gs, Keyboard Only.	6.95	10-59.35 on top 5.25	9.95		
10-68		10-68		10-68		10-68	

CO-DU-CO Computer Dust Covers 2 W. Wisconsin Ave., Milwaukee, WI 53208 800-735-1584 • 414 476 1584 • 414 476 9329 FAX

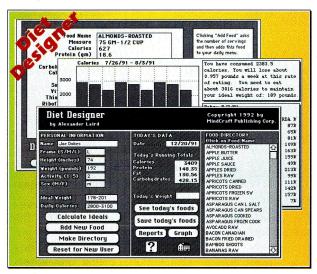
Circle 21 on Reader Service Card.

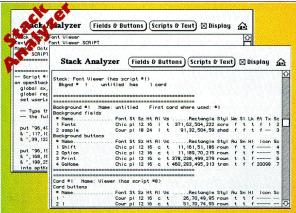
Macintosh HyperTalking

Call Toll Free: 1-800-343-0728

Start HyperTalking!

The HyperCard Disk Magazine with a Difference!





COMING IN HYPERTALKING!

HyperInvestor

Stock charting, moving averages, tax reports.

Binary Clock

Tell the time in binary and learn stack building.

Mr. President

Run your own company — Simulation game.

Chart Builder

Pie, Area, Line, Bar, Stacked Bar graphing!

Alarm Master

No more missed events or appointments!

MoneyManager

Learn where your money goes! Graphs & reports!

Presentation Maker

Mini page composition stack for snappy slides.

AND MORE!

Every issue of HyperTalking is an adventure.

Get exciting new HyperCard stacks with complete articles on disk that show how they work — and all for only \$6.66 per issue. There's no risk – you can get a refund for all unmailed issues at any time. Here's a sample:

Feature

DIET DESIGNER

Weight control doesn't have to be an ordeal. Diet Designer has a built-in library of more than 400 foods to choose from. Select your daily foods and get a complete summary of calories, cholesterol, vitamin-content, and other nutritional values. Automatic graphs help measure your progress as the pounds melt away.

For Fun

ADVENTURE BUILDER

Create your own adventures with this interactive stack. The decisions along the way decide how the story ends.

Productivity Utilities

STACK ANALYZER

The ultimate stack analyzer and documenter! Automatically prints tables of every object's characteristics and listings of every script... even hidden ones! It's great for analyzing new stacks.

Education Corner

10 Steps for Writing Education Stacks

Help your kids learn what's important for THEM. Learn to write stacks that entertain your children while they learn.

Better Scripting

SECRETS OF HYPERCARD MESSAGES

Learn how messages search through your stack... where they go and what they do!

Start H	lyperTal	king! call	1-800-343-0728
Six issues for:	□ \$39.95 U.S.	□ \$44.95 Canada	□ \$54.95 Overseas
Orders mu	st be prepaid in U.	elivery of your first issu S. funds drawn on a U T. • California resident	
Name			
Company			The state of the s
Address			
City/State/Zip		A CANADA	The second secon
PAYMENT EN	ICLOSED: 🖵 Check	Money Order 🚨 Master	Card 🖸 VISA 🚨 AMEX
Card #		Exp	pire Date
Signature			
5			H234

THE MARKETPLACE

SUPER DEALS ON MACS & APPLES! BUY · SELL · TRADE · USED · NEW

Apple IIc/IIc+,IIe	Lowest
Apple Ilgs Color System	In Stock
-MAC PLUS 2.5/40 EXT HD	\$799.99
•MAC SE 2.5/20 EKB	\$1049.99
· MAC Classic 4/40(new)	\$999.99
- MAC Ilcx from	\$2099.99
·MAC SE/30, Ilcx, Ilci, Ilfx, Quadra	Lowest
·MAC LC, Ilsi, Portable, Power Book	Call
Imagewriter I/II from	\$225.00
Apple 3.5" Unidisk 800K	In Stock
Mice/Apple HI-Speed SCSI \$59.	99-99.99
100 Meg HD INT/EXT(new) \$	314/\$394
Outbound Laptop B	est Price
Memory /Cards	Lowest
Floppy Drives	Call
Parts, Peripherals, Repairs	Lowest

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)

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 48307-9998

Circle 47 on Reader Service Card.

MEMORY CHIPS

Guaranteed Lowest Price!

Special Discount for Schools, Call for Details - NEW! AE 1X4 ZIPS - 1MB SIMM (ALL MACS) \$45.00 - 256K Chip Set (Standard) \$19.00 - 256KX4 Chip Set (AE Ultra) \$14.95 - 1MB Chip Set (AE Plus) \$55.00 - SE 4MB card for IIGS w/1MB \$99.00 - SE 1MB card for Ilc w/256K \$99.00 - SE 1MB card for IIE w/256K \$99.00

Many type chips available, call for details. CALL TOLL-FREE 1-800-776-6260



Circle 17 on Reader Service Card.

Perfect

LASER 128 LASER 128EX 398 468 558 No-slot Clock 36 Kraft Joystick. Pro-Term ver 2.2....49

Zoom 2400 Modern....79 LASER PC-4 for Mac. LASER 128 Expansion Box.

LASER 128 Carry Case. Drive for Ile, Laser 128, Mac:

5.25"...99 3.5"...119 5.25"...119 3.5"...169 Daisy drive for Ilgs, Ilo+, EV2: 5.25"...1
14" Paper White Monitor for Laser 128......

Copy II+ 9.1 | LASER | 1-800-726-7086 Memory og Chips: ligs...45 School PO's, Charge & COD.

em3 | Local Orders (407) 790-1070

meg Chips: ligs...45 256K chips: Laser & Apple...18 RAM Card: lie...52 ligs...49 lic...69 Laser 128...29 12657 Coral Breeze Drive W. Palm Boh, FL 33414

Circle 59 on Reader Service Card.

APPLE PUBLIC DOMAIN CATALOG

Request free catalog containing complete descriptions of hundreds of programs for the Apple II+, e, c, c+, and GS computers. We carry the very best in all categories including Business, Home, Education, Utilities, Games, Print Shop Graphics, Appleworks Templates, and more. We use only high-quality colored disks which are completely SELF-BOOTING and MENU-DRIVEN. All orders are shipped the same day they are received. We pay shipping with small minimum order. Request free catalog or send \$2.00 for catalog and demo disk. Money-Back Guarantee! Send for yours today!



MOONLIGHT SOFTWARE P.O.Box 179144 San Diego, CA 92177

Circle 50 on Reader Service Card.

The Little Red BBS is easier to use.

Understandable menus. Messages by topic within sub-boards. Automatically follows reply threads. Multiple access levels depending on user participation, automatic deletion of old messages/users, all with Sysop override. Optional private sub-board. Auto callback verification with blacklist option. Private downloads. Word-wrap text editor. Req Ile, c, or GS with 512K. \$70 basic, \$95 with matchmaker. Don Doumakes, PO Box 445, Ft. Calhoun, NE 68023. Demo (402)468-4728; give password 130incider.

Circle 15 on Reader Service Card.

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

In business since 1986

bigger surprise!

- · Purchase Orders Welcome
- Next Day Shipping

Caloke Industries (Dept. SK)



PO Box 18477 Raytown, MO 64133



Circle 45 on Reader Service Card.

!!!REPAIRS!!!

Apple II+, IIe, IIc Logic Board swap \$99 + S&H Mac+, SE Logic Board swap \$225 + S&H ONE YEAR WARRANTY Apple 5.25" DD Rehab \$65 + S&H Apple 3.5" DD Rehab \$100 + S&H

Mac+, SE Power supply sweep \$69 + S&H 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, NI 08109 (609) 662-3420

Circle 64 on Reader Service Card.

FAMILY TREE GENEALOGICAL RECREATION EASY TO USE FAST - FUN

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 \$3995+250 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 Carpenteria, CA 93013-2863

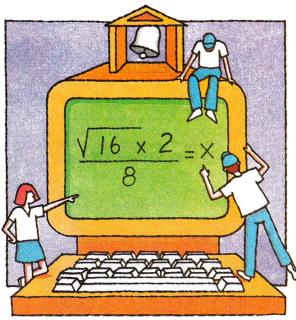
Circle 49 on Reader Service Card.

LEARNING CURVE

HOMECOMING 2

We, as a nation, can ill afford to deny our students access to powerful information technology.

o those who want change in education, I say there will be no renaissance without revolution." So declared President Bush, and in doing so launched a nationwide focus on the restructuring of public-school education at every level. Can computers contribute to this rebirth of opportunity? Indeed, as last month's column demonstrated (May 1992, p. 64), they may well be the key — the very vehicle that will transform traditional classroom education as we know it. On a recent trip to



By DAVID D. THORNBURG, Ph.D.

Indiana I had the chance to learn about a most innovative educational-technology program. The Buddy System (1 North Capitol Avenue, Suite 925, Indianapolis, IN 46204, 317-231-7145), incorporating 15 schools, places computers with modems in the homes of all children in grades 4 through 12. This project is truly revolutionary because of the sheer volume of technology that has been installed. The results are fascinating: The quality and depth of fifth-grade writing assignments, for instance,

has improved markedly; parents are learning to use the technology themselves; and, in some cases, the student's computer system has provided a good incentive for parents to

improve their own literacy skills.

Telecommunications is a critical component. Homes are linked directly to schools electronically. Teachers post nightly homework assignments for students and parents to review. Electronic mail lets parents, teachers, and students discuss educational issues. Students "chat" with peers at other schools and collaborate on projects; they learn to access the resources offered by commercial on-line information services.

We, as a nation, can ill afford to deny our students access to powerful information technology, and the cost of providing this equipment is quite modest. Let's assume that the useful life of a personal-computer system is five years, and that each child will receive a machine with a 40-megabyte hard drive, color display, 2400-baud modem, and an integrated software package. You can purchase an entire MS-DOS or used Apple II or Mac system with these capabilities today for about \$800.

Many parents would opt to buy the system outright. Others could finance their purchase through a local institution or a bond issue. If the purchase is spread over five years at 8-percent interest, the investment amounts to only 53 cents per day. Adding a CD-ROM drive and a printer brings the total cost to 87 cents a day.

And for those who couldn't afford it, schools could turn to a system already in place: A free-lunch program costs taxpayers about \$1.80 per day; increasing this amount by only 30 percent could provide computers for these children also — a minuscule investment compared with the cost of other government programs such as the savings-and-loan bailout. Of course, system prices would drop precipitously as soon as vendors — including Apple — realized they were competing for the sale of 50 million computers in the first year alone.

An article in the May 6, 1991, *Tribune Star* of Terre Haute, Indiana, told the story of Deanna Overton, a sixth-grader who found school so difficult that she was failing most subjects a few years ago. Since the implementation of the Buddy System in her school in the 1988-89 school year, her grades have improved to the point that she's now earning As and Bs. Most importantly, she's developed a positive image of herself as a learner, and is actively engaged in school projects. As Deanna puts it, "This project has given me a head start with my future. Those who don't learn about computers will be lost."

Let's help all our children prepare for their future by implementing a program like the Buddy System in every community. It may be just exactly the kind of revolution U.S. public education needs.

We have System 6!



Resource Central

RESOURCE CENTRAL is the publisher of award-winning publications such as **A2–Central**, the monthly newsletter of the Apple II community. Now we're also the official source of APPLE SYSTEM SOFTWARE and other goodies formerly sold by the Apple Programmers and Developers Association.

Apple IIGS System 6

Apple has just released **System 6** for the Apple IIgs. **System 6** offers an enhanced user interface, greater speed and performance, and data exchange capabilities not available on any other computer!

The Apple IIGs **System 6** package includes six 3.5-inch disks containing system and set-up software and system tools and a brand new **Apple IIGs System Software User's Guide.** Or you can buy a **System 6** update only, which includes the same six disks plus a seventh disk that contains developer-oriented release notes.

➤ Order by August 31, 1992 and request a 2-issue subscription to our flagship publication, **A2–Central on Disk** (\$15 value). We'll send it to you FREE!

System 6 with User's Guide \$39 System 6 Update Only \$24

HyperCard IIGS V1.1

HyperCard IIGs is Apple's COLOR Hypercard. **HyperCard IIGs 1.1** has incorporated features from Macintosh HyperCard version 2.0 and 2.1. The HyperTalk scripting language is virtually identical on the IIGs and Macintosh. **HyperCard IIGs 1.1** requires an Apple IIGs personal computer with 1.5 MB RAM and hard disk or network connection.

➤ Order by August 31, 1992 and request a 2-issue subscription to our **HyperCard Ilgs** on-disk publication, *Script-Central* (\$16 value). We'll send it to you FREE.

HyperCard IIGS V1.1 \$69 HyperCard IIGS Update Only \$21

Update is for current HyperCard Ilgs owners only. You must send your original "Installer and Tour" disk as proof of purchase.

SUMMER CONFERENCE

and Much More...

Call or write and ask about our conference in

KANSAS CITY JULY 23–24

(913) 469-6502

Or get our free catalog: we sell 100's of Apple II goodies.

DEADLINES: Free publication offer ends August 31, 1992. **SHIPPING:** Surface shipping free world-wide. For air, we'll add the actual postage cost to your credit card order. **PAYMENT:** We accept personal checks, Visa, MasterCard, and school purchase orders.

PUBLICATIONS



GEnie

A2

A2Pro

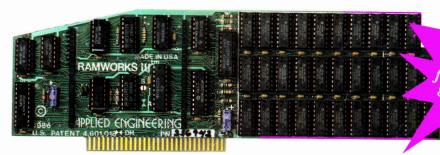
A2-Central
TimeOut-Central
Script-Central
Studio City
Hyperbole

CONFERENCE

KansasFest:
The Apple II
Reunion
July 23–24, 1992

Resource Central

RamWorks III



Special Trade-In Offer for your Extended 80-Column Card. Call Today!

The best selling, most compatible, most recommended, most expandable card available.

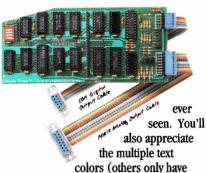
While RamWorks III[™] is recognized by all memory intensive programs, NO other expansion card comes close to offering the multitude of enhancements to AppleWorks that RamWorks III does.

A larger desktop is just part of the story. Look at all the AppleWorks enhancements that even Apple's own card does not provide and only RamWorks III does. All of AppleWorks (including printer routines) will automatically load itself into RAM dramatically increasing speed by eliminating the time required to access the program disk drive. Switch from word processing to spreadsheet to database at the speed of light with no wear on disk drives.

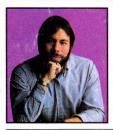
RamWorks eliminates AppleWorks' internal memory limits, increasing the maximum number of database records available. Only RamWorks increases the number of lines permitted in the word processing mode. And only RamWorks offers a built-in printer buffer, so you won't have to wait for your printer to stop before returning to AppleWorks. And RamWorks auto segments large files so they can be saved on two or more disks. You can even have Pinpoint or MacroWorks and your favorite spelling checker in RAM for instant response.

The most friendly, most compatible card available. Using RamWorks III couldn't be easier because it's compatible with more off-the-shelf software than any other RAM card. But unlike other cards, RamWorks plugs into the IIe auxiliary slot, providing our super sharp 80-column text (U.S. Patent #4601018) in a completely integrated system.

The ultimate in RGB color. RGB color is an option on RamWorks and with good reason. For only \$129. it can be added to RamWorks, giving you razor-sharp vivid brilliance that most claim is the best they've



green) that come standard. But the RamWorks RGB option is more than just the ultimate in color output because unlike others, it's fully compatible with all the Apple standards for RGB output control, making it more compatible with off-the-shelf software. With its FCC certified design, you can use almost any RGB monitor because only the RamWorks RGB option provides both the new Apple standard analog and the IBM standard digital RGB outputs (cables included). The RGB option plugs into the back of RamWorks with no slot 1 interference. And remember you can order the RGB option with your RamWorks or add it on at a later date.



"I wanted a memory card for my Apple that was fast, easy to use and very compatible; so I bought RamWorks."

Steve Wozniak, co-founder of Apple

It's got it all.

- 15 day money back guarantee
- 5 year warranty
- Built-in super sharp 80-column display (U.S. Patent #4601018)
- Expandable to 1 MEG on main card (2

MEG expander available.)

- Automatic AppleWorks expansion up to 3017K desktop
- Accelerates AppleWorks
- Built-in AppleWorks printer buffer
- 100% compatible with all standard He software
- Compatible RGB option featuring ultra high resolution color graphics and multiple text colors with cable for both the new Apple and standard IBM-type monitors
- · Self diagnostic software included
- Takes only one slot (auxiliary) even when fully expanded
- · Socketed and user upgradeable
- Used by Apple Computer, Steve Wozniak and virtually all software companies.

RamWorks III with 256K	\$189
RamWorks III with 1 MEG	\$309
RamWorks III with 1.5 MEG	\$429
RamWorks III with 3 MEG	\$629
RamExpander + 1 MEG	\$209
RamExpander + 2 MEG	
ColorLink RGB Ontion	

Order today! To order or for more information, see your dealer or call (214) 241-6060 today, 9 am to 11 pm, 7 days. Or send check or money order to Applied Engineering. MasterCard, VISA and C.O.D. welcome. Texas residents add applicable sales tax.

Applied Engineering.

The Apple enhancement experts.

A Division of AE Research Corporation

(214) 241-6060

P. O. Box 5100 Carrollton, TX 75011



© 1992 AE Research. Inc. All rights reserved. Prices subject to change without notice. Brand and product names are registered trademarks of their respective bolders.