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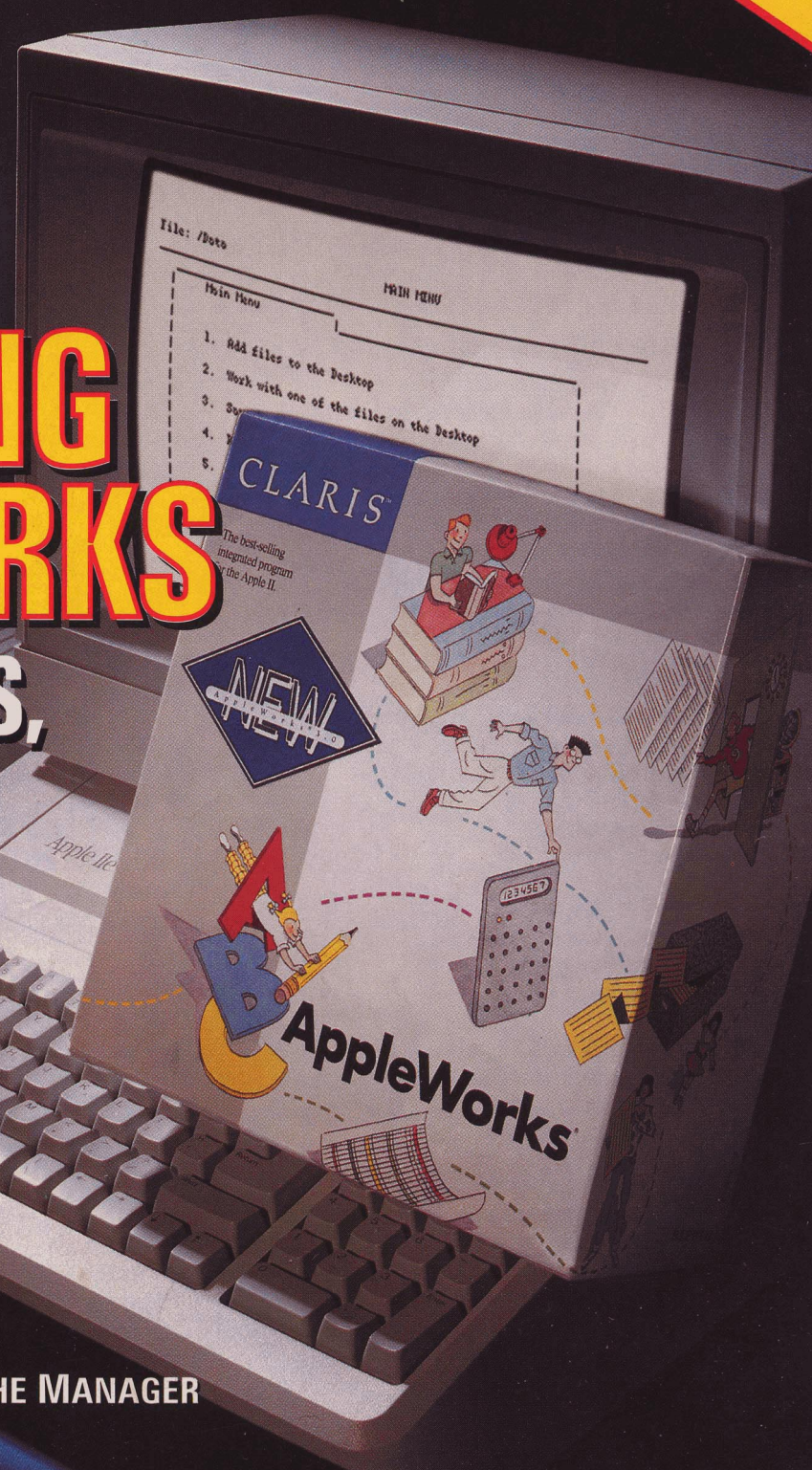
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on CD-ROM p. 28

REVIEWS



- SWITCH-IT! VS. THE MANAGER
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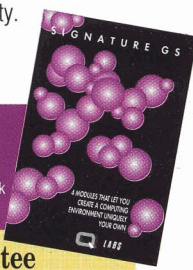


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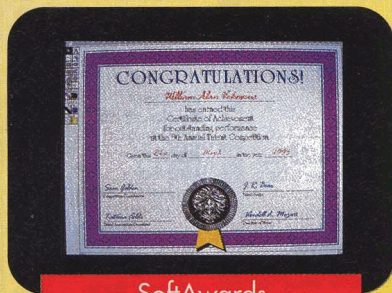


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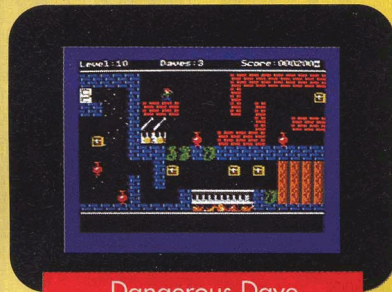
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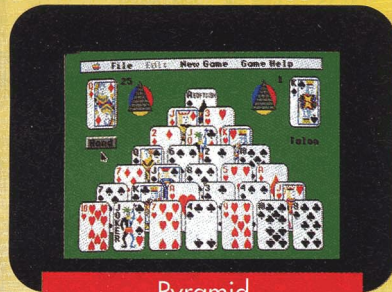
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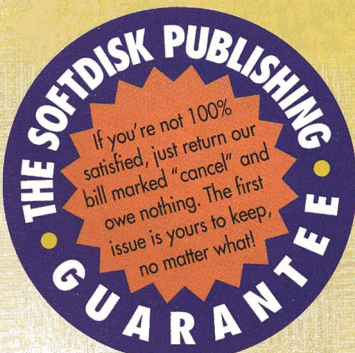
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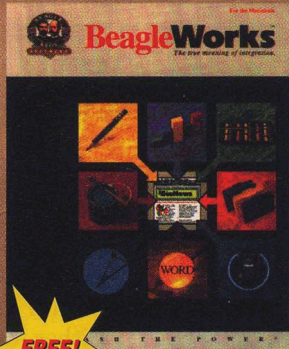
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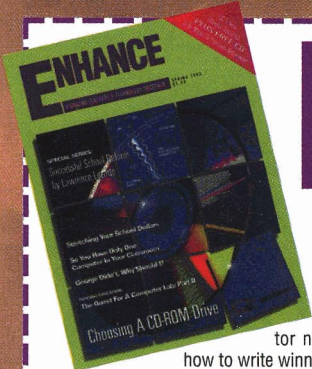
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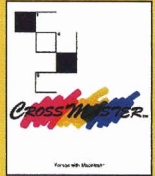
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II Essentials: AppleWorks

by Warren S. Williams, Cathleen Merritt,
 and Keith Bernhard38

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

DEPARTMENTS

What's New

Thorns Among the Roses • Clinton Pz • New-Product Focus8

Apple Clinic

“Most Wanted”: Hot Stuff • Lock Up • Speeding Ticket
 • Serving Time • Fresh Start • Lifer16

Reviews: Apple II

Switch-It! 1.0.2 vs. The Manager 1.020

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

Plus: AccuDraw 1.1b • Talking Fingers 1.1

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COLUMNS

Shareware Solutions • *Joe Kohn*12

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

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

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

A + M A C

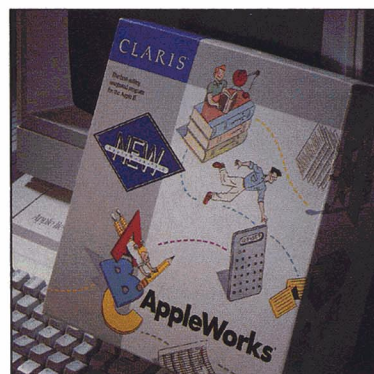
News & New Products

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

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

Reviews

It's a Bird's Life • M4: Sherman Tank Simulator • Local Expert32



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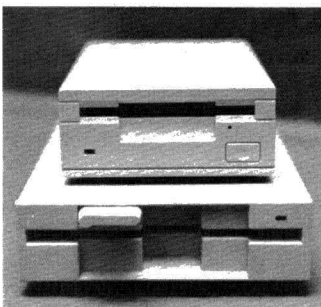
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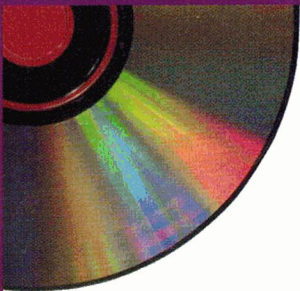
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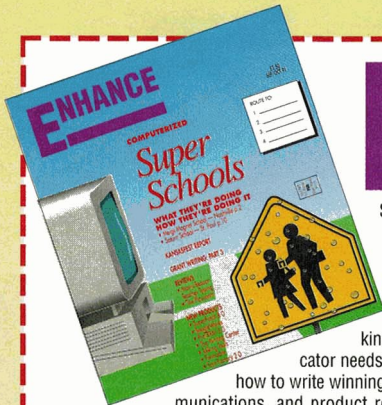
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The Q-RAM GS is an economical way to add up to 4 MEG of memory to your Apple IIGs. It's fully compatible with all Apple IIGs hardware and software—including the IIGs RAM Disk and DMA peripherals like the Apple II High Speed SCSI Card. And it's so small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

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

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

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

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



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

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

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



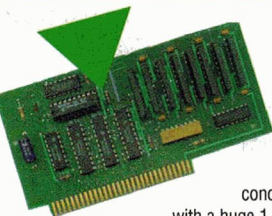
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Q-RAM IIe

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



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

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WHAT'S NEW

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

CLINTON PZ

T

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

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

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

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

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

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

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

THORNS AMONG THE ROSES

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

◆
NO MORE PAPER SHUFFLE?

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

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



Solutions' Life Skills module.

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

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

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

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

◆
WE KNEW THAT

The Apple II market is strong and growing," observes MindPlay's Paul L. O'Rourke in explaining the company's decision to add Abracadata's **The Adventure of Learning Series** to its Apple II software line.

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

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

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

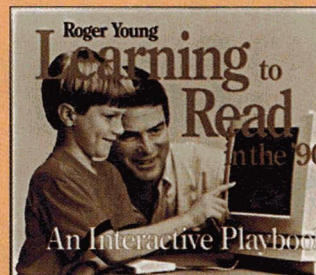
◆ ■
READ IT AND REAP

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

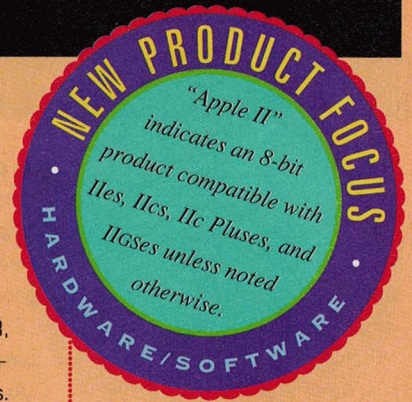
tax, if applicable) gives parents a new way to become involved in their children's education. The book shows parents how to make learning to read fun by using simple word pictures, television, a VCR, an audiocassette player — and, of course, computers. Not surprisingly, most of the programs included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

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

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



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



■
JUST THE FAX, MA'AM

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

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

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

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

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

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

KEYS TO SUCCESS

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

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

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

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

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

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

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

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

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

WORD GAMES

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

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

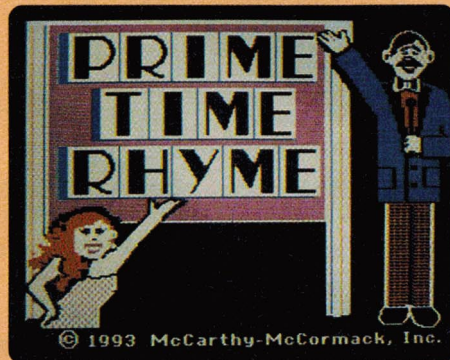
In **Prime Time Rhyme**, children practice auditory discrimination and reading skills as they match pictures with



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

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

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



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

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

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

FREEBIES

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

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

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

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

investment in Apple II computers and printers.

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

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

KANGAROO AND COMPASS

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

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

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

Meanwhile, first- to third-grade students can explore



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

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

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

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

FONTASTIC

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

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

GUESSING GAMES

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



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

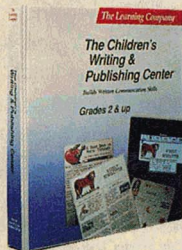
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SHAREWARE SOLUTIONS * BY JOE KOHN

FAIR SHARE

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

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

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

What's Your Share?

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

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

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

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

NO FREE LUNCH

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

— J.K.

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

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

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

How to Get Your Share

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

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

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

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

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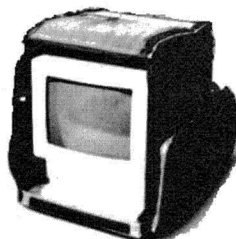
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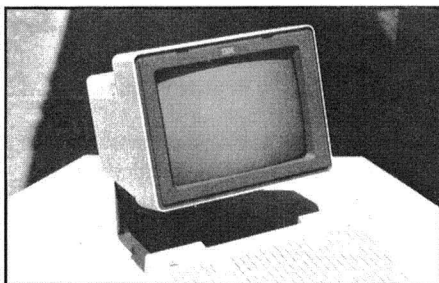
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SEQUENTIAL SYSTEMS

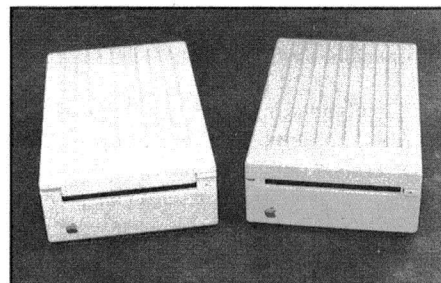
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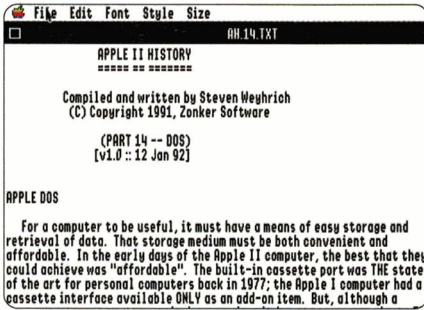
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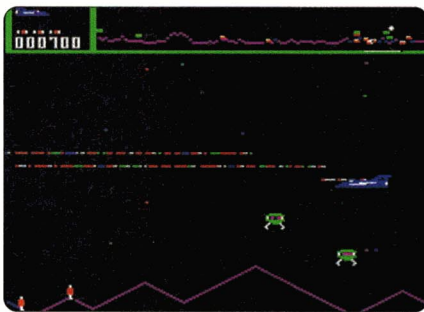
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Apple II History: fascinating reading for computer buffs of all ages.

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



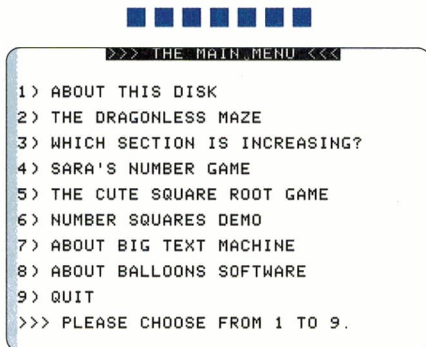
Defender: outstanding fast action, arcade-style, on your small screen.

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



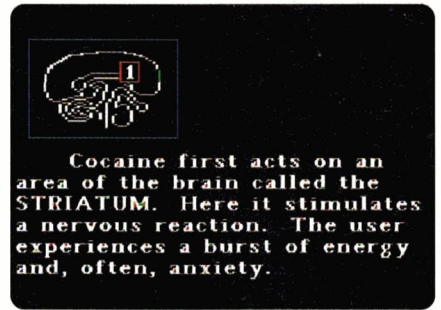
Legends: weird-and-wonderful characters keep you on your toes.

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



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

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



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

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



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

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

PRODUCT INFORMATION

America Online

Quantum Computer Services
8619 Westwood Center Drive
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\$7.95/month service fee
plus \$6/hour connect time
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Delphi

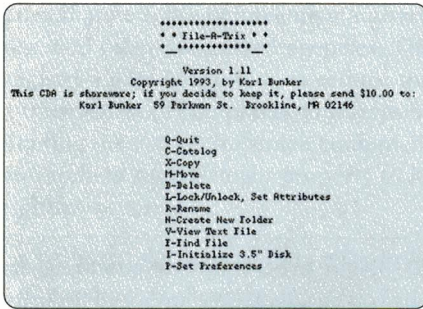
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JOE KOHN IS A CONTRIBUTING EDITOR FOR *INCIDER/A+*. IF YOU'RE HAVING TROUBLE FINDING ANY OF THE PROGRAMS DISCUSSED IN THIS MONTH'S COLUMN, SEND A SELF-ADDRESSED, STAMPED ENVELOPE TO HIM AT 166 ALPINE DRIVE, SAN RAFAEL, CA 94901.



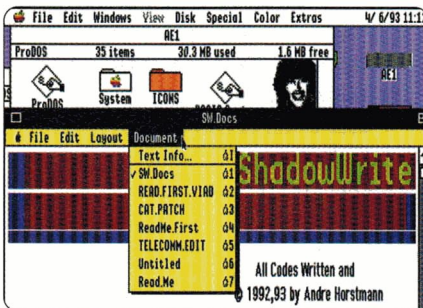
File-a-Trix: disk-management options galore to enhance your productivity.

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



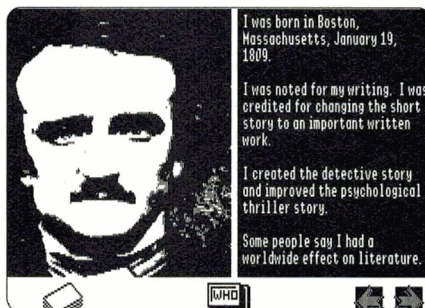
SpyHunter: thrills, chills, and fast-action race-car combat.

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



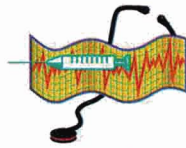
ShadowWrite: the most-versatile free GS word processor available anywhere.

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



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

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



APPLE CLINIC



MOST WANTED

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

By CYNTHIA E. FIELD, Ph.D.

HOT STUFF

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

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

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

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

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

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

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

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

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

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

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

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

LET'S BE CAREFUL OUT THERE

Stolen Computer Registry

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

LOCK UP

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

Ron Walters
Astoria, OR

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

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

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

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

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

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

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

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

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

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

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

SPEEDING TICKET

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

Brian "Lost in Stockton" Terrill
Stockton, CA

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

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

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

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

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

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

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

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

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

SERVING TIME

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

Ernest C. Duval
Saratoga Springs, NY

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

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

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

POWER UP

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

FRESH START

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

Jerry Peplinski
Uby, MI

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

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

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

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

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

CHECKING THE BOOKS

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

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

LIFER

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

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

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

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

John M. Leggett
Milwaukee, WI

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

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

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

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

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

MOUSING AROUND

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

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

MS-DOS APPLEWORKS*

*inCider A+ Magazine, August, 1991

SuperWorks™

INTEGRATION FOR THE NEXT GENERATION OF PC USERS

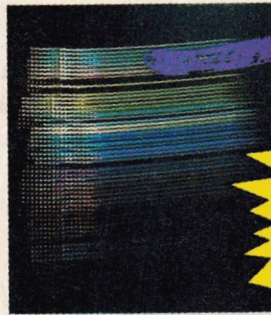
UNITED STATES NATIONAL DEBT -- 12/31/1989

State	Population	Adjusted Debt	Per Capita Debt
1905	232,815,889	\$1,221,888,888,889	\$7,837
1904	228,818,889	1,271,888,888,889	5,564
1903	224,820,889	1,271,888,888,889	5,711
1902	221,822,889	1,143,888,888,889	4,315
1901	218,824,889	1,015,888,888,889	4,252
1900	215,826,889	887,888,888,889	3,988
1900	212,828,889	759,888,888,889	3,572
1900	209,830,889	631,888,888,889	3,016
1900	206,832,889	503,888,888,889	2,460
1900	203,834,889	375,888,888,889	1,854
1900	200,836,889	247,888,888,889	1,248
1900	197,838,889	119,888,888,889	602

Main Menu

ADD FILES

SuperWorks Files	File Name	Size	Date	Time
WTR01-01	Word Processor	56	Mar-18-91	9:05:28
WTR01-02	Word Processor	56	Mar-18-91	9:05:28
WTR01-03	Word Processor	56	Mar-18-91	9:05:28
WTR01-04	Word Processor	56	Mar-18-91	9:05:28
WTR01-05	Word Processor	56	Mar-18-91	9:05:28
WTR01-06	Word Processor	56	Mar-18-91	9:05:28
WTR01-07	Word Processor	56	Mar-18-91	9:05:28
WTR01-08	Word Processor	56	Mar-18-91	9:05:28
WTR01-09	Word Processor	56	Mar-18-91	9:05:28
WTR01-10	Word Processor	56	Mar-18-91	9:05:28
WTR01-11	Word Processor	56	Mar-18-91	9:05:28
WTR01-12	Word Processor	56	Mar-18-91	9:05:28
WTR01-13	Word Processor	56	Mar-18-91	9:05:28
WTR01-14	Word Processor	56	Mar-18-91	9:05:28
WTR01-15	Word Processor	56	Mar-18-91	9:05:28
WTR01-16	Word Processor	56	Mar-18-91	9:05:28
WTR01-17	Word Processor	56	Mar-18-91	9:05:28
WTR01-18	Word Processor	56	Mar-18-91	9:05:28
WTR01-19	Word Processor	56	Mar-18-91	9:05:28
WTR01-20	Word Processor	56	Mar-18-91	9:05:28



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

WHAT ARE THE EXPERTS SAYING?

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

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

★★★★ inCider Magazine, November 1991

Miami Herald/Craig Crossman 8/12/91

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

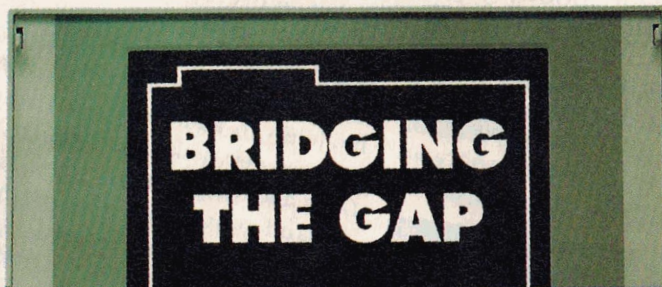
Remarkable Technologies announces a breakthrough product which now delivers AppleWorks power on an IBM PC or compatible. SuperWorks lets AppleWorks users step up to a PC with AppleWorks files, utilizing an AppleWorks work-alike integrated package.

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

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

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

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






 **SUPERWORKS BRINGS APPLEWORKS FUNCTIONALITY TO THE PC** 



Special introductory offer

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

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

   EXP. DATE _____

CARD NUMBER _____

SIGNATURE _____

NAME _____

COMPANY _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

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

Circle 33 on Reader Service Card.

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

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

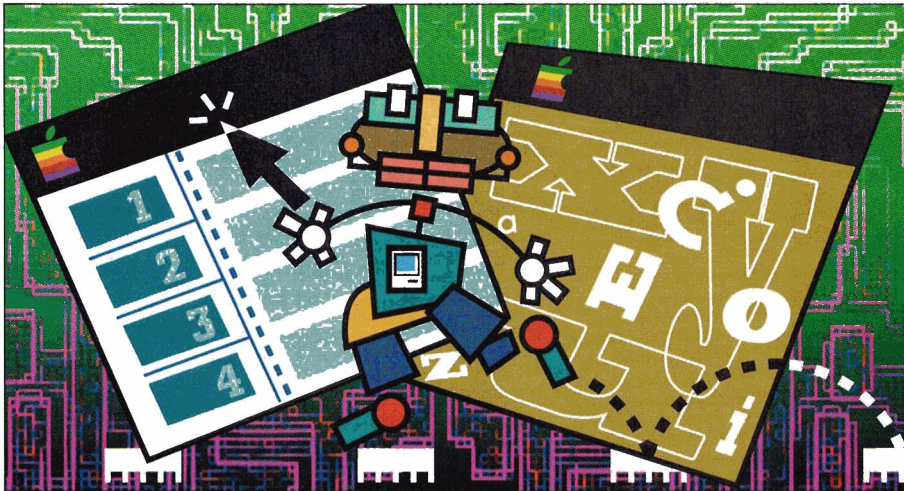
CALL FOR NETWORK AND SITE LICENSING

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

REVIEWS



TROY VISS



SWITCH-IT! 1.0.2 VS. THE MANAGER 1.0

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

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

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

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

IMPROVING ON A CLASSIC

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

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

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

★ ★ ★ ★ ★ SWITCH-IT! 1.0.2

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

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

★ ★ ★ ★ ★ THE MANAGER 1.0

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

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

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

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

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

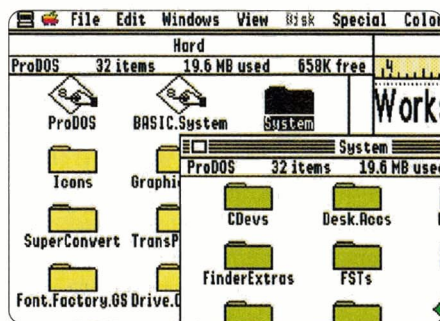
Here's a temporary fix: Use such applications one at a time and start them first. That way the program can grab the bank-zero memory it wants and the programs you boot after it can request the RAM they need from what's left. Both Seven Hills and Sequential Systems are notifying programmers of this quirk;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

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

CRITICAL DIFFERENCES

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

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



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

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

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

PLUS AND MINUS

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

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

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

PICKS AND PANS

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

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

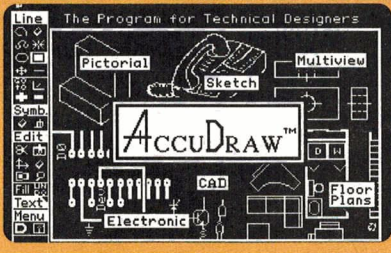
Undoubtedly the biggest thing to consider is The Manager's multitasking ability. I predict GS owners are going to see some eye-popping things done with multitasking in the near future. At least for the time being, The Manager is the only way to get in on the fun.

**Jon McCreight
Princeton, MN**

ACCUDRAW 1.1B

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

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



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

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

PROCEDURAL DETAILS

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

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

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

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

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

FEATURES AND FLEXIBILITY

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

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

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

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

UNTAPPED POTENTIAL

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

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

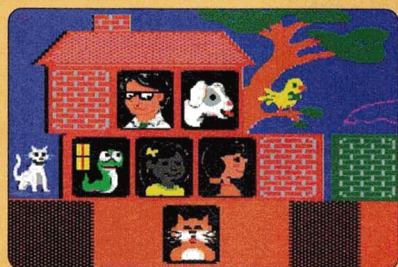
AccuDraw sports some nifty features, including a built-in screen saver and file-access security system. Unfortunately, the program still has some rough edges. I experienced a number of lockups, crashes, and corrupted files during the review process. Then, too, the user interface is somewhat quirky. A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

Garry Howard
Calgary, Alberta, Canada

TALKING FINGERS 1.1

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

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



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

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

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

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

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

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

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

EXTRAS

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

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

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

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

MAKING A COMMITMENT

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

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

Midge Frazel
Bridgewater, MA

THE APPLE II REPORT

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

● COLLEGE EXPLORER 1993

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

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- 1992-93 edition
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- \$125

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

● HISTORY MAKERS

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

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

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

● IT'S ABOUT TIME

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

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

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

● MAKE-A-FACE: FUN WITH BASIC SHAPES

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

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

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

● ON THE STREET WHERE YOU LIVE

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

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

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

● SKILLS BANK II

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

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

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

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

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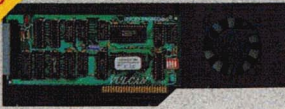
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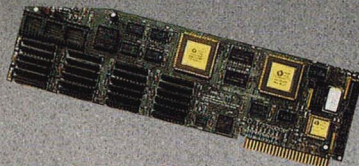
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JUNE 1993

INSIDE...

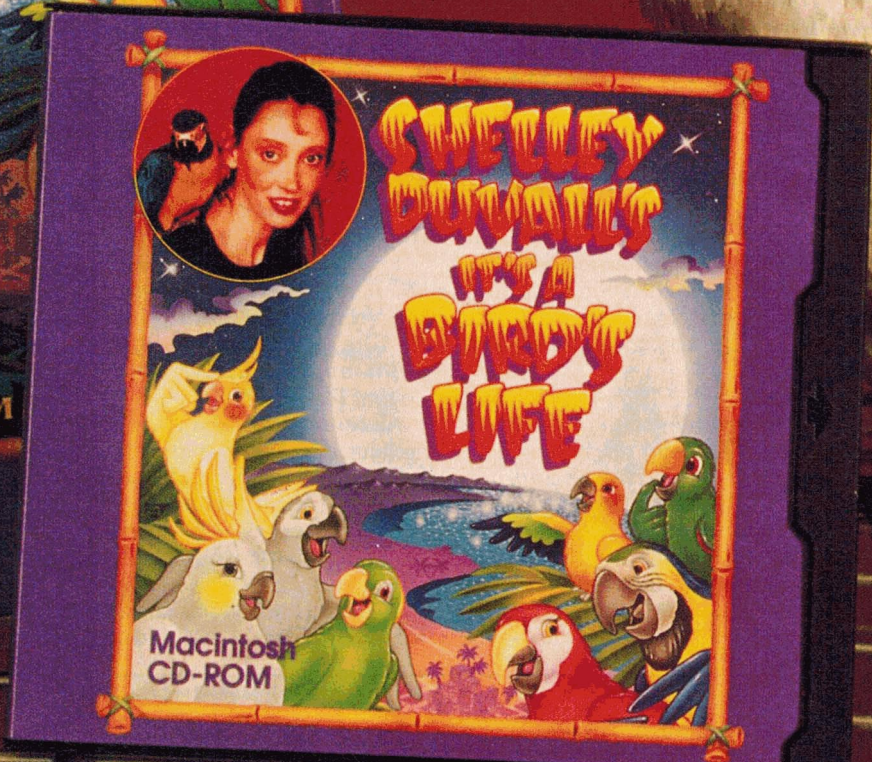
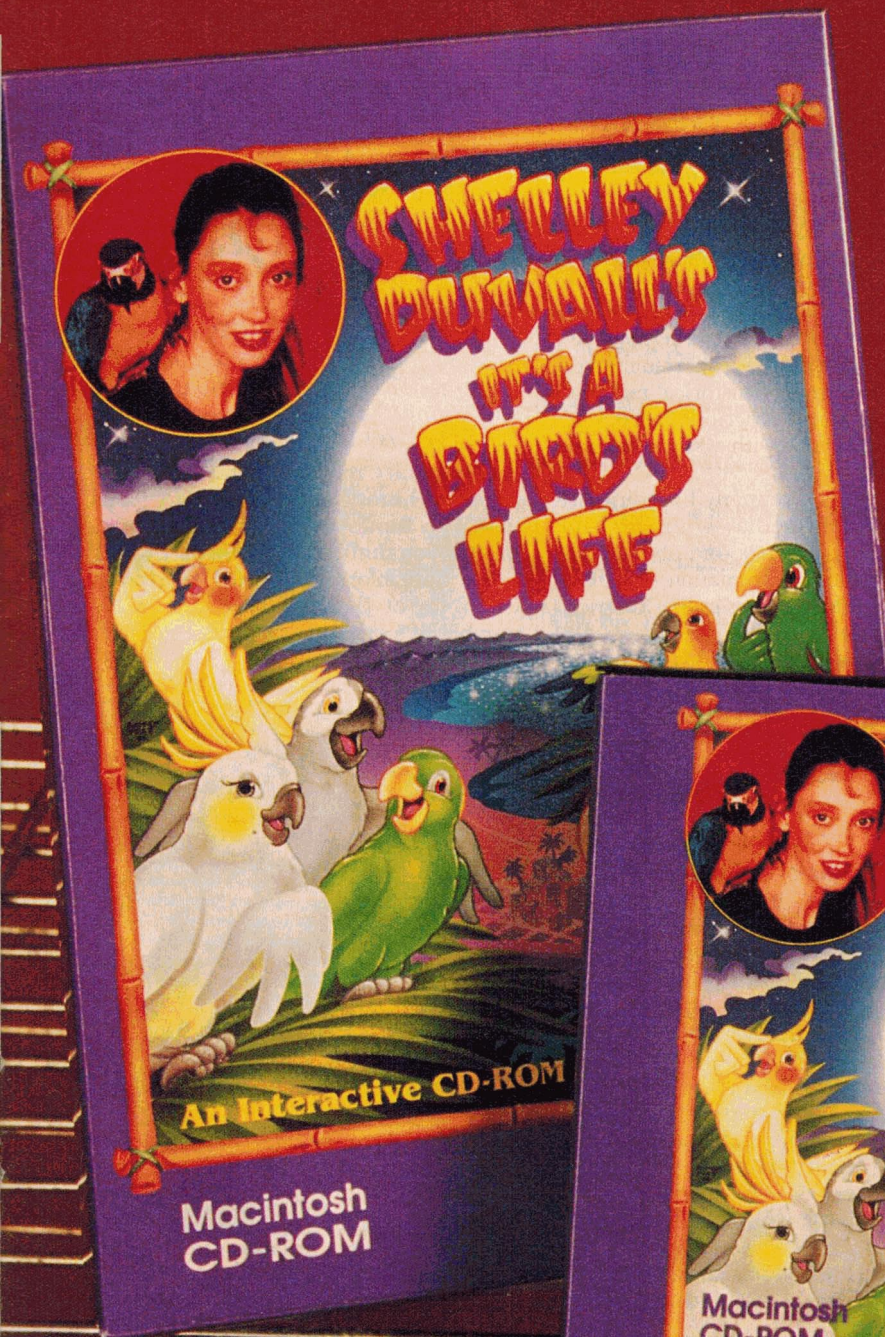
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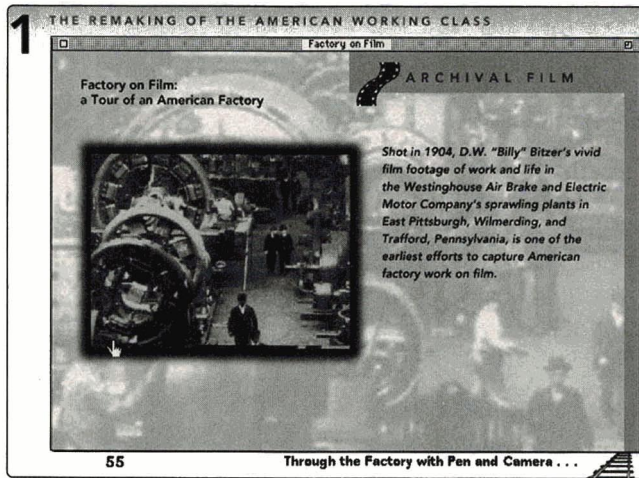
Reviews32

A+MAC

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



HISTORY COMES ALIVE



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

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

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

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

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

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

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

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

— P.S.

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

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

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

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

AT THE MOVIES

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

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

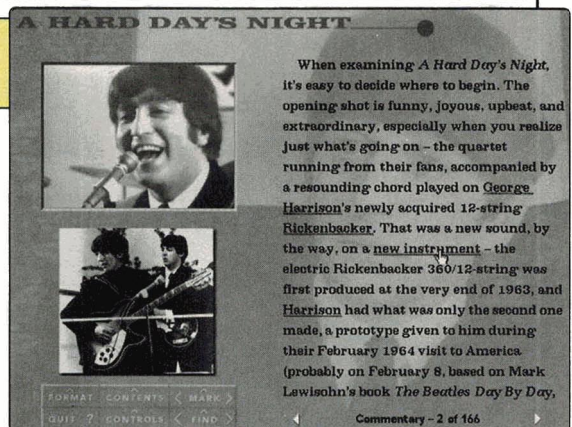
A Hard Day's Night is the first major theatrical release to be presented complete and uncut in Macintosh format. Voyager's *A Hard Day's Night* — the

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

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

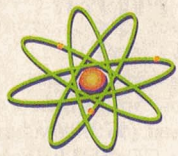
All 90 minutes of the critically acclaimed film and its soundtrack, including 12 songs, are on the disc, as are the theatrical trailer, clips from Richard Lester's other movies, and a prologue that was added when *A Hard Day's Night* was rereleased in 1983.

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



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

— P.S.

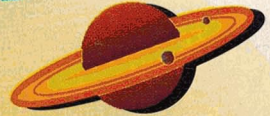


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(Mac LC screen image)

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NEW HARDWARE



PORTABLE CD PLAYER

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

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

LOUD AND CLEAR

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

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

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

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

LINK UP

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

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

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



LARRY DUNN

NEW SOFTWARE

BERLIN WALL CD-ROM

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

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

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

QUICK ON THE DRAW

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

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

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

DRAW IT YOURSELF

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

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

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

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

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

WONDERFUL CD-ROMS

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

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



CIVILIZATION SIMULATION

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

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

MUSIC TEACHER

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

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

LOW-COST MULTIMEDIA

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

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

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

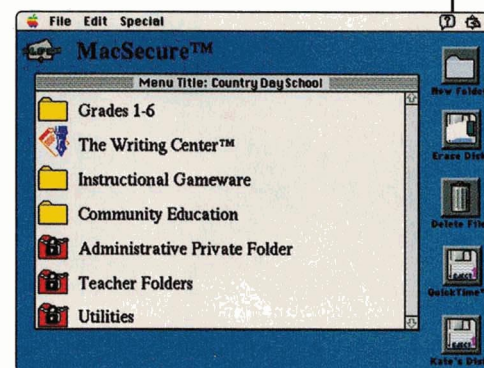
PERFECT PAPERS

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

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

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

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



SAFE MACS

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

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

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

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

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



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

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

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

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

Guy Wright
Temple, NH

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

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

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

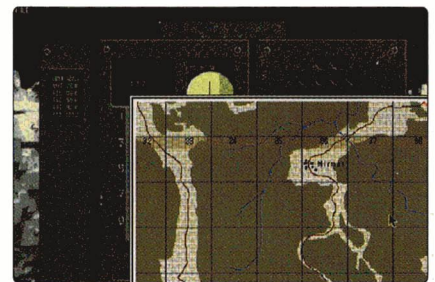
In addition, It's a Bird's Life contains a wealth of enjoyable activities, including clever sing-alongs, jigsaw puzzles, coloring, connect the dots, and a world map offering information on birds. When you click on a continent on the world map, the program lets you select among four or five types of parrots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

SLOW FLYING

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

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

M4: SHERMAN TANK SIMULATOR



★★

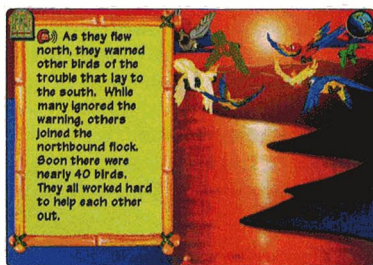
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- includes headphones
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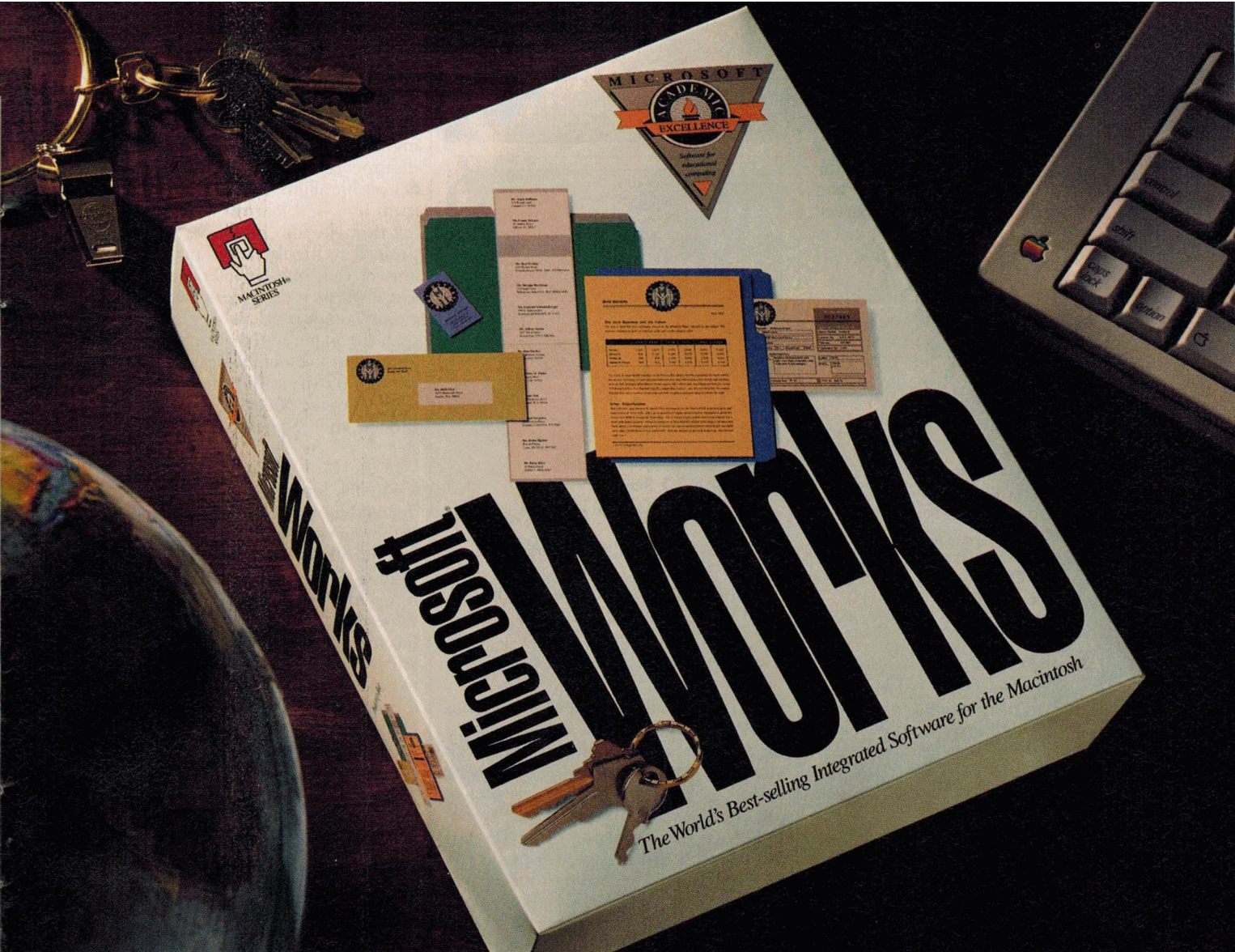
★★★★

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



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

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

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

MOVE OUT!

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

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

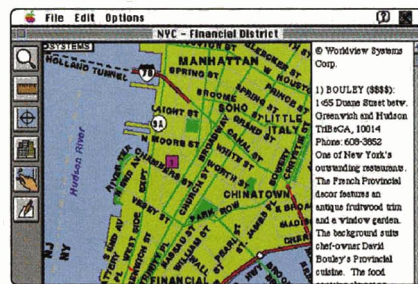
M4 makes good use of digitized audio to simulate the fog of battle — that confusion and uncertainty that make "military planning" an oxymoron. But missing or intermittent samples of sounds and graphics detract from the game. For the most part, the graphics images are good, but not outstanding. The program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

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

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

Guy Wright
Temple, NH

LOCAL EXPERT



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

BAD DIRECTIONS

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

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

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

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

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

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

GET LOST!

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

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

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

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

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

Wendy J. Meyeroff
New York, NY

Charter Discount Offer

MACCOMPUTING

The Magazine that Helps You Get the Max from Your Mac

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

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- Bill me later!

Name _____

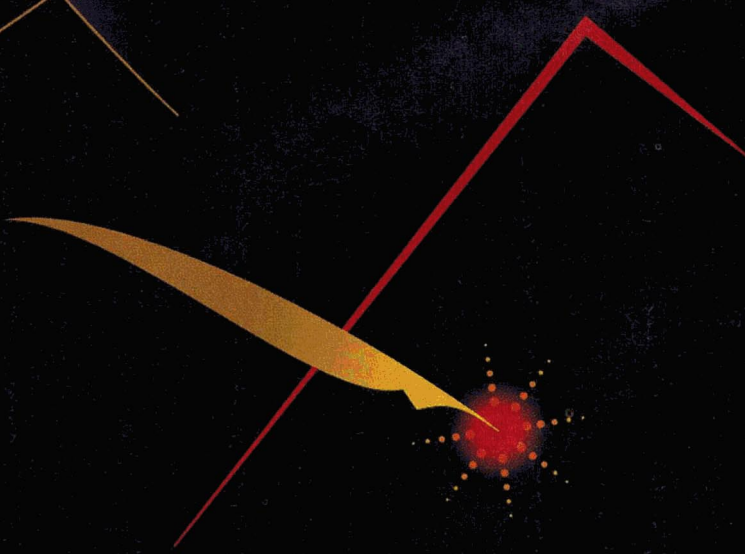
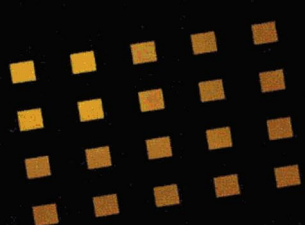
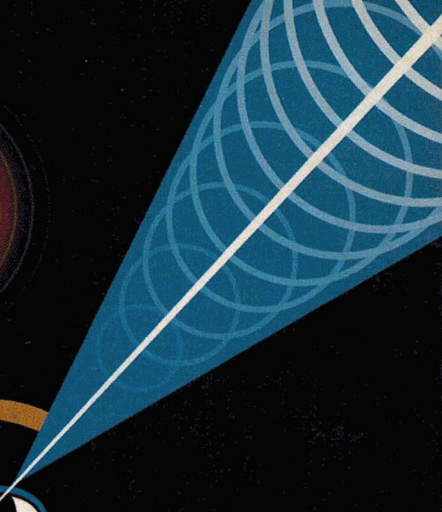
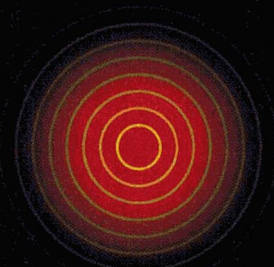
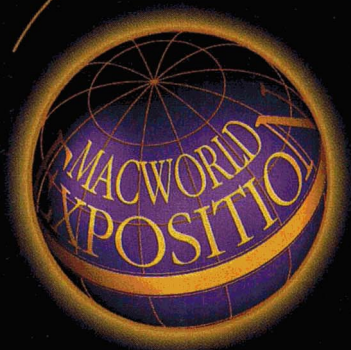
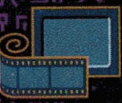
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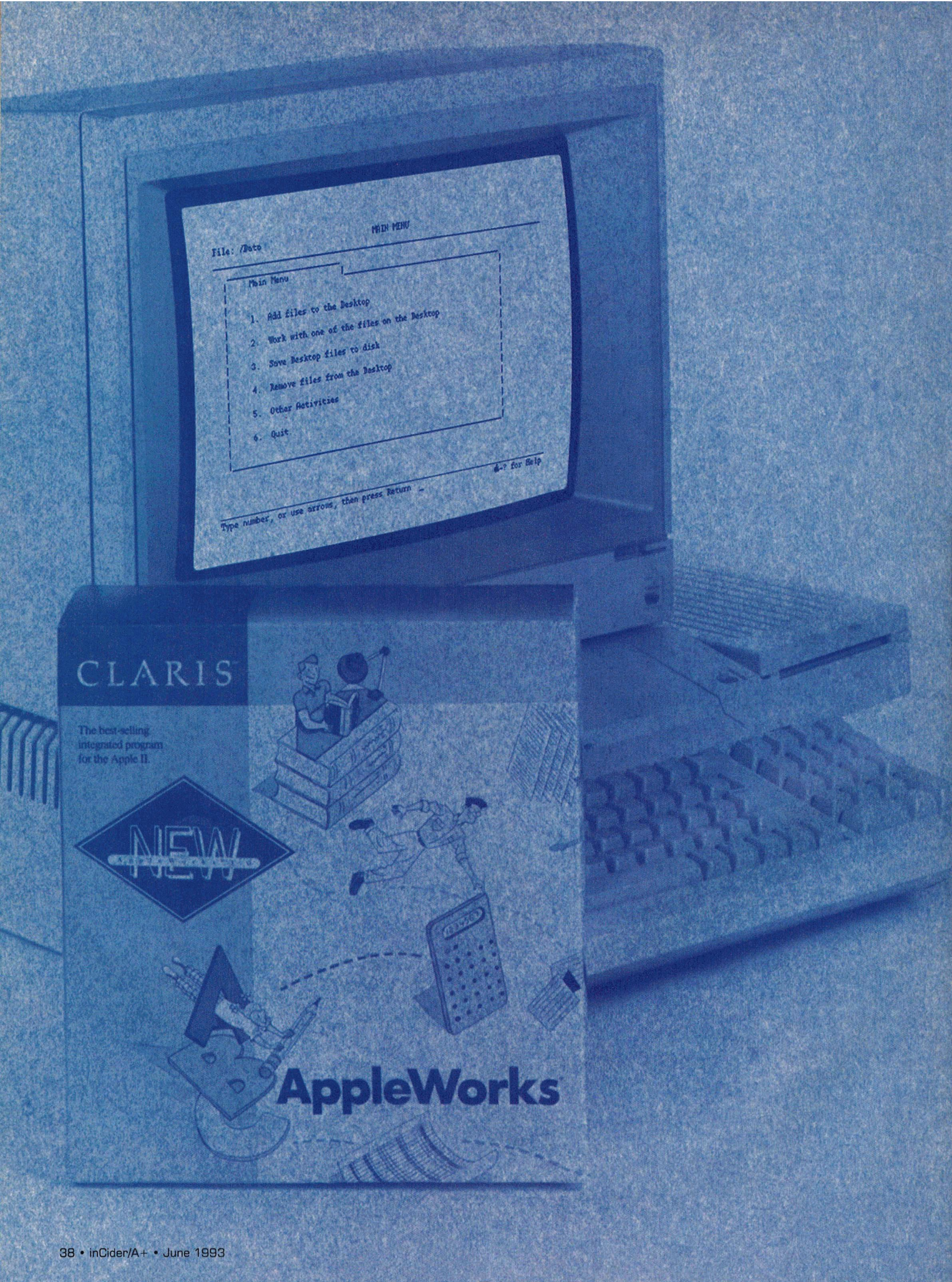
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File: /Data

MAIN MENU

Main Menu

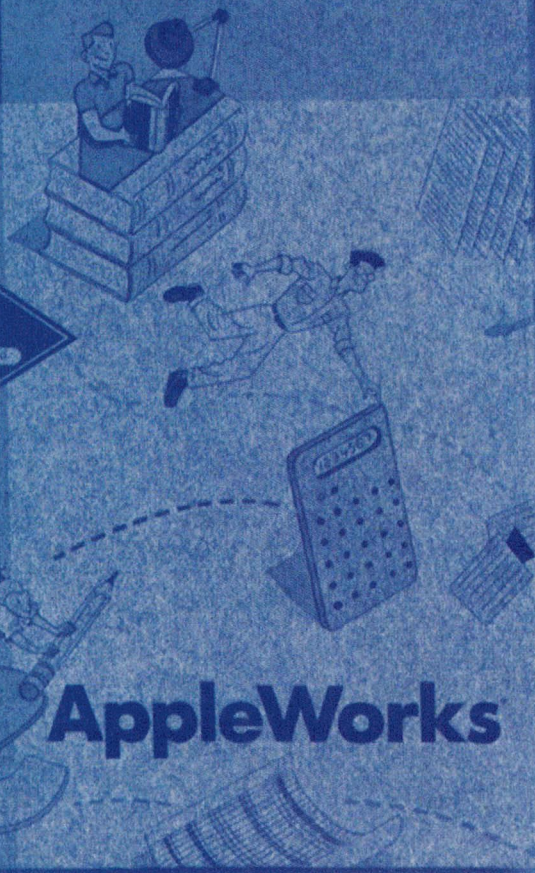
1. Add files to the Desktop
2. Work with one of the files on the Desktop
3. Save Desktop files to disk
4. Remove files from the Desktop
5. Other Activities
6. Quit

⌘-? for Help

Type number, or use arrows, then press Return

CLARIS

The best-selling integrated program for the Apple II.



AppleWorks

II ESSENTIALS: APPLEWORKS

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

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

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

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

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

NEW WAYS OF THINKING

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

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



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

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

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

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

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

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WHEN YOU NEED HELP

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

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

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

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

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

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

— W.W.

A P P L E W O R K S

File: INCOME	REVIEW/ADD/CHANGE		Escape: New Year
A	B	C	D
	This Year	Last Year	Difference
1) Income			
2) Salary	\$42,000.00	\$37,000.00	\$5,000.00
3) Dividends	\$12,000.00	\$9,000.00	\$3,000.00
4) Interest	\$975.00	\$1,500.00	(\$1,775.00)
5) Total Inc	\$54,975.00	\$47,500.00	\$7,225.00
6) Expenses			
7) Mortgage	\$1,300.00	\$1,200.00	\$100.00
8) Utilities	\$1,300.00	\$1,200.00	\$100.00
9) Insurance	\$2,800.00	\$2,500.00	\$300.00
10) Total Exp	\$5,400.00	\$5,400.00	\$0.00
11) Net Income	\$49,575.00	\$42,100.00	\$7,225.00

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

Figure 2. AppleWorks spreadsheet showing personal-budget calculations.

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

FAMILY TREE

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

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

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

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

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

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

Selection: All records

Record 5 of 9 (9 selected)

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

Type entry or use DA commands DA-? for Help

Figure 3. Name-and-address file data.

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

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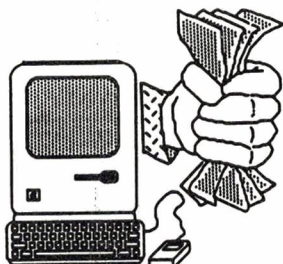
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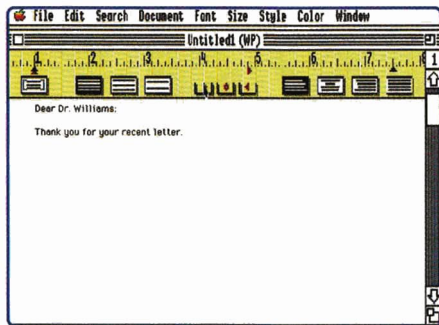


Figure 4. AWGS word-processor screen. Note “Mac-style” menus and graphical interface.

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

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

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

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

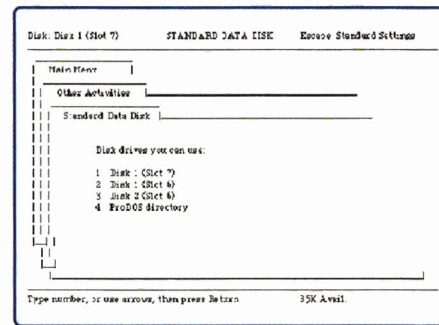


Figure 5. Configuring AppleWorks for your system: Select a disk drive for data storage.

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

GETTING STARTED

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

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

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

INTEGRATED SOFTWARE CAN’T DO IT ALL

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

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

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

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

— W.W.

SHOULD YOU UPGRADE?

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

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

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

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

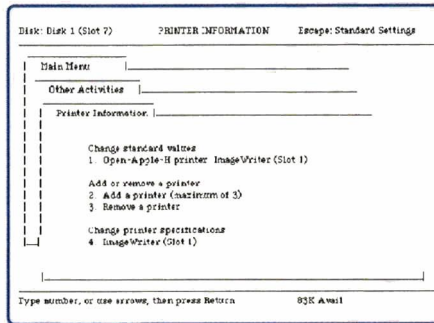


Figure 6. First step in configuring AppleWorks for your particular printer model.

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

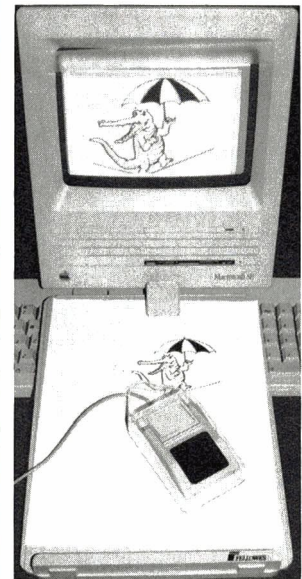
7. Use the up- and down-arrow keys to highlight the printer you're using (Figure 7), then press Return. If your printer isn't on the list, check the manual that came with the printer to see whether it can emulate one of the Epson models. If so, tell AppleWorks you have an Epson printer connected to your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

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

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

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

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



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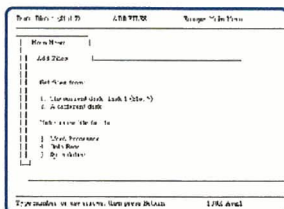


Figure A. Hierarchical files.

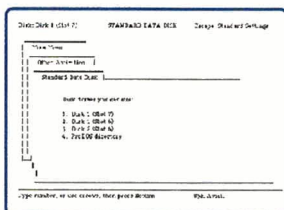


Figure B. Nested menus.



Figure C. Press OA-? for help.

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

— W.W.

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

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

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

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

READY TO GO

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

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

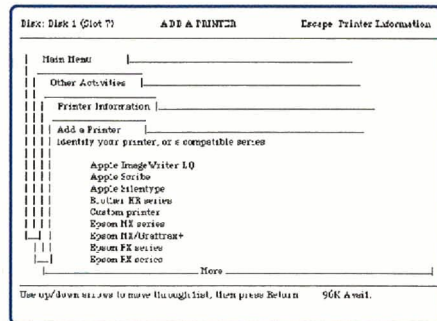


Figure 7. Select a printer type.

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

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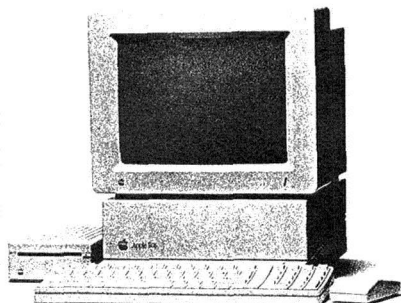
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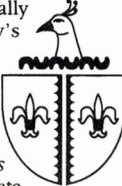
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LETTERS



IIE CARD CONFIGURATION

I'VE USED ALL THREE OF THE Iie-based products John Klees mentions in his letter ("Iie Emulation," Letters, March 1993, p. 8) without difficulty from an Apple Iie Card in a Macintosh LC. Perhaps Mr. Klees should check the card's configuration in the Control Panel. MECC products, such as **Oregon Trail**, work best if you remove the clock and the mouse from the slots.

Also, when you first set up that alternative card configuration, return to Macintosh mode and change the name of the *Iie Prefs* file to something like *Startup MECC*. Thereafter, use that file to launch the special Apple Iie Card configuration you created for the MECC products.

Create other *Pref* files for your Iie programs that need special Apple Iie Card configurations. That way you won't need to keep changing the configuration from the Control Panel.

Ellen H. Nesbit
Virginia Beach, VA

LOOSE BUT NOT FORGOTTEN

I FOUND A CHIP LOOSE IN MY Apple IIGs. It's stamped with the numbers *TMM41464AZ-12* and *8729HCK*. It measures about 1 by one-quarter by one-eighth inch and has 20 connector pins. The GS seems to run okay without it, but every time something unusual happens with the machine, I wonder whether it's because of this chip. Any help will be appreciated.

C.H. Fink
Dallas, TX

Since most of the IIGs' chips on the motherboard are soldered into place, the chip you mention probably fell off one of your expansion cards. We couldn't find a reference for the chip, but we don't have a very extensive library of electronic parts. Can anyone help? We'll be glad to pass along your answers to Mr. Fink.

— eds.

KIDDESK BEATS AT EASE?

I WAS APPALLED BY YOUR comparative review of **KidDesk** versus **At Ease** (March 1993, Reviews, p. 34): On a "head-to-head" basis, the teachers in my school district are beginning to see that KidDesk wins hands down, not the other way around.

Your reviewer erred in saying **At Ease** has better protection. She should have known to make an alias for the **KidDesk** startup and put it on the System 7 Desktop, or make it the startup application for System 6.

KidDesk protects the Apple menu better than **At Ease** and gives teachers and parents control over the **Finder**, **Shut Down**, and applications. The review also failed to mention that **KidDesk** is a better buy (\$20 less than **At Ease**), and that it can print school and class calendars easily from event icons. **KidDesk** is

also easier to set up and use in a lab or network. And Edmark, **KidDesk's** developer, gives better support.

Contrary to your reviewer's observation, **KidDesk** does restrict children's access to desk accessories: A teacher or parent designates which accessories appear on the desktop, as well as which ones make sounds and can be printed.

And your reviewer made it sound as though **KidDesk** is hard to use. Not so — it's actually quite simple. I think you've done your readers a disservice.

Linn Boswell
Computer Specialist
Quail Run Elementary School
Phoenix, AZ

GS ENTHUSIASM

IN RESPONSE TO BONNIE PARKER ("Iie Enthusiasm," Letters, February 1993, p. 8): As long as you're spending money to enhance your Iie, why not consider the "ultimate" upgrade — to a IIGs? You can purchase a kit from **Shreve Systems** (1200 Marshall, Shreveport, LA 71101, 318-424-9777) for about \$150, and installation is no big deal if you're handy with a screwdriver. The result is a computer that gives you the best of both Apple II worlds.

Stanley W. Marks
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CORRECTION

The **Voyager Company's** phone number is incorrect as listed in our April issue ("Quick and Dirty," *Status Report*, p. 64). The correct phone number is (310) 451-1383.

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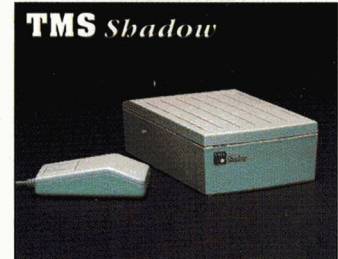
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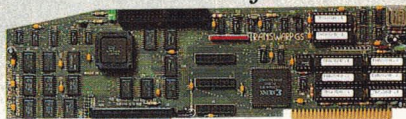
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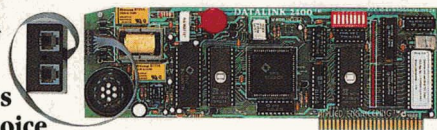
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Internal modem for
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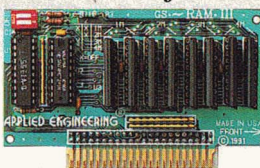
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