

**A journal and exchange of Apple II discoveries**

## Smooth print tools

by Dennis Doms

### Pointless: large, but not chunky, fonts.

The easiest way to demonstrate what Westcode's new Apple IIgs program *Pointless* does is to show you:

This is Helvetica 48  
This is Helvetica 48  
with Pointless

The first line is Helvetica 48 without *Pointless* (the largest size of Helvetica in the "System:Fonts" folder was 14). The next line is Helvetica 48 generated from the TrueType font definition that comes with *Pointless*.

**Pointless** installs as a GS/OS Control Panel Device (CDev) and enhances the IIgs Font Manager to recognize and use fonts designed with Apple's scalable TrueType font technology.

Unlike bitmapped fonts that the IIgs has been stuck with previously (see "Fonts: on screen and in print", February 1989) that only look correct at a specific designed size, TrueType fonts are defined by mathematical curves and a governing set of "hints" that indicate how the font should be drawn at various sizes. Although a TrueType font file is larger than the smaller bitmapped (say, 10- and 12-point) sizes; one file adequately describes the font to allow any size without losing quality.

In basic use, you use the Installer on the *Pointless* disk to add *Pointless* and its included TrueType fonts (Geneva, Monaco, Chicago, Courier, New York, and Symbol) onto your GS/OS startup disk (you'll need a little over 400K of space on your disk to do this). When you reboot you'll have access to *Pointless* through the IIgs Control Panel NDA; pull down the Apple menu to select the NDA, then scroll to the *Pointless* CDev icon in the NDA window and open it. The *Pointless* CDev displays a list of currently installed fonts and has four buttons to allow you to customize your configuration.

**"Add"** allows you to select the other TrueType fonts you have available for *Pointless* to use; just click the "Add" button and select the font from the "standard file" dialog presented. The fonts need to be in a constant location (if you move them, you lose them until you "Add" them again from their new location) but they don't have to be in the "System:Fonts" folder of the startup disk. *Pointless* therefore gives you a way to have fonts available that are not located on your boot disk; given the size of many TrueType fonts and the spare real estate on the boot disk for users without hard disks, this is a great feature.

**"Remove"** lets you delete a font from the installed list (but not from disk; you can reinstall it again if you like).

**"Configure"** allows you to determine which characters of a selected font will be generated by *Pointless*. When initially installed, *Pointless* does not have the "high ASCII" characters (those with the high bit set, giving byte values of \$80-\$FF or 128-255 decimal) enabled; this cuts down tremendously (by about 50 percent) on the amount of

memory required to store the font while it is being used. But if you require some of the special characters like "\$" then you can use "Configure" to display the character set and select the other characters you want to use. (Since I had plenty of memory, I enabled all the displayable characters.)

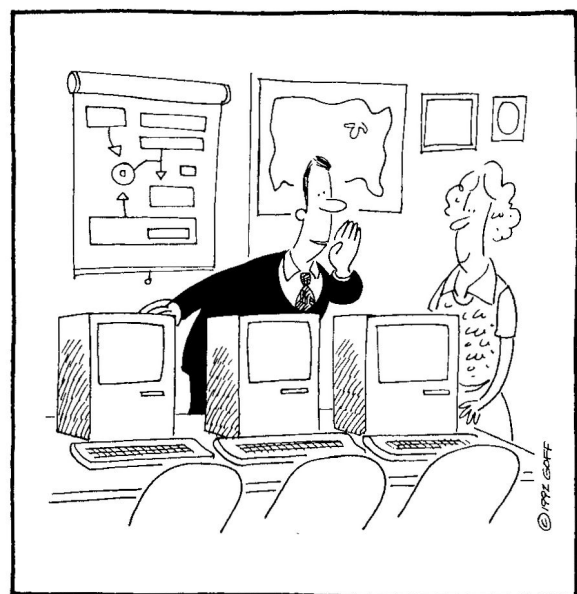
**"Save bitmap"** allows you to select a font and save a bitmap version in IIgs font file format, making *Pointless* serve as a font creation utility for making fonts in specific sizes. There are basically three reasons you may want to do this:

First, when *Pointless* has to scale a font to a new point size it takes a few seconds to create the scaled version. If the bitmapped version for that size is available in the IIgs "System:Fonts" folder that font will be used instead, making access to it much quicker (all that has to be done is to load the font into memory). So you may want to construct bitmaps for your commonly used fonts and sizes.

Second, the bitmapped fonts are standard IIgs fonts that can be used with programs that can't use *Pointless* itself. This includes PRO-DOS 8 programs, such as *Publish-It!* and *TimeOut SuperFonts*.

Third, it allows you to create bitmapped sizes for use with the IIgs LaserWriter driver, which doesn't support *Pointless* as supplied. If font substitution in the "Print?" options is not selected and the LaserWriter driver finds a font that doesn't exist in the printer it will fall back to using a bitmapped version of the font. *Pointless* can be used to insure larger bitmapped sizes of non-LaserWriter fonts are available in your "System:Fonts" folder so that the bitmapped version downloaded to the LaserWriter will be as accurate as possible.

You need to complete any of these configurations before you enter



"THEY'RE REALLY APPLE IIgs COMPUTERS. WE'VE JUST DISGUISED THEM AS MACS TO KEEP THE CRITICS SATISFIED."

the program in which you intend to use the changes. *Pointless* saves the settings, but they aren't recognized by the system until the next application is started (when the Font Manager is started up).

**When you enter an application, the names for *Pointless* TrueType fonts will appear in your "Fonts" menu.** You won't see *Pointless* working unless you try to display or use a font that the system can't find in your "System:Fonts" folder. If the font isn't found, *Pointless* will look through its list of installed fonts and see if it has a TrueType file for the requested font. If so, *Pointless* loads it and presents a clocklike cursor to indicate progress as it scales it to the appropriate size (this usually only takes a few seconds). Once scaled, you use the new font just as you would normally. (If you open a document that uses fonts that *Pointless* must generate you will see a little delay as *Pointless* creates each font.)

The other indication that you're dealing with a *Pointless* font is in the "Choose font?" dialog; if the font is a TrueType font, you'll see a range of point sizes in single-point increments since *Pointless* can scale the font to any size.

If requested by the Print Manager, *Pointless* will also generate the correct point size for printed output. For example, since screen fonts are defined at 72 dots per inch (dpi) and the ImageWriter prints at a resolution of 144 (dpi) the printer driver will work better if it can find fonts that are twice the size of the "display" font. When asked, *Pointless* will generate these fonts to give the printer driver the best possible rendition of the font it needs for the printer output. The results with even the standard ImageWriter driver are magnificent; with the combination of a high-resolution printer and driver (we tried a DeskJet with the Independence and Harmonie drivers, and a Citizen GSX 145 27-pin printer with Harmonie's Epson LQ driver) they are spectacular. (As mentioned, the current LaserWriter driver can't take advantage of *Pointless* directly; we hope someone will find a solution for this.)

**Of course, part of the trade-off for higher resolution is time.** *Pointless* usually only takes a few seconds itself to generate the properly sized font, but high-resolution printers require much more information to be sent to them (it increases proportionately to the square of the resolution) and therefore printing sharper documents will take longer. But with *Pointless* you won't be wasting time printing high-resolution images of oversized low-resolution fonts.

**Another trade-off is memory.** Larger fonts require more memory to store while in use. Many large fonts may require a lot more memory. *Pointless* will run on a 1.25 megabyte IIgs, but your choice of fonts may be squeezed by memory constraints. The answer (one that is relatively inexpensive now) is to add more memory. Also, if you are using System 5.0.4, you are limited to a maximum font size (in terms of memory used) of 64K; if you try to scale a font to a size larger than this (and don't ask us where the break occurs; it changes with each font) you'll have problems. The solution is System 6.0, where this limit has been removed.

**Finally some applications have a limit on the size of font you can use.** The largest size *AppleWorks GS* will support is 48 points; some applications will allow larger sizes. The *Pointless* manual has a table showing the limits for several popular applications.

**The *Pointless* manual also describes how to convert TrueType fonts from Macintosh disks.** With GS/OS 6.0, you can copy TrueType fonts over directly from a Macintosh disk if you have the HFS FST installed; *Pointless* will recognize and install them. You may be able to find user supported (freeware/shareware/public domain) fonts available for downloading; if the fonts are in a Stuffit 1.5.1 archive (not Stuffit Deluxe, Compactor, or another Mac archiver) you can use the IIgs version of ShrinkIt to extract the font for installation. (Unfortunately, there's no easy way to visually tell a Stuffit 1.5.1 archive from a Stuffit Deluxe archive; both are indicated by a ".SIT" suffix on Mac BBS systems. Sometimes the file description will tell what archiver was used. Other archives do use different suffixes.)

*Pointless* (\$79.95 from Westcode Software, Inc., Suite 112, San

Diego, Calif. 92128, 619-679-9200 voice or 619-451-0276 fax) is an inexpensive way to graphically improve the way your text looks on screen and in print. We think it's an essential utility for Apple IIgs owners.

## **Express: make your computer spend more time with you than with your printer.**

Most computer users are familiar with the concept of a printer buffer; it's memory dedicated to holding information sent to the printer until the printer is ready for it.

Since memory is sometimes a limited resource, a function similar to a buffer can be performed by a spooler, where output from a program is "printed" ("spooled") into a file (rather than memory) for storage until the printer is ready to accept it. Another companion routine then searches your disk periodically for spooled files that need to be printed and feeds them to the printer.

Either function doesn't make a printer print any faster from a mechanical standpoint; what they do is create a "holding tank" for output waiting on the printer to catch up. You are returned to your program so you can do more work while the buffer feeds the remaining output to the printer. The difference is not in how fast your documents actually print — since each method actually adds more manipulation to the output and actually slows down printing slightly — but in how quickly your program is freed of monitoring the print operation. When you print with a buffer or spooler, your computer is returned to you while your printer continues to labor on.

When printing from an Apple IIgs desktop application, your program may be tied up for several minutes while sending information to the printer. Seven Hill's *Express CDev* is intended to return you to work more quickly by allowing you to spool desktop printing to disk files that *Express* will send on to the printer later. *Express* can steal chunks of the IIgs's time to send the files on to the printer while you continue working, or you can elect to hold all the files on disk and print them out in a group later.

**The *Express* disk includes an Installer to add it to your current system disk.** Given the possible size of the spooled files on disk, the program requires a hard disk drive for safe operation. *Express* works with any direct connect printer accessed by the IIgs Print Manager. This includes printers driven by Apple's drivers or third-party drivers like *Independence* or *Harmonie*, but it doesn't include AppleTalk printers like the LaserWriter or AppleTalk ImageWriter. Anytime you print via the Print Manager when *Express* is enabled, the output is spooled to disk instead of sent immediately to the printer.

*Express* doesn't require any special changes in your printer configuration; its duties are set up through a separate Control Panel device. A set of options lets you choose how the spooled files are handled (whether they should be deleted after printing, kept after printing, or simply held and not printed until you decide what to do) and whether *Express* itself is inactive (when inactive, the "Print?" menu item goes back to working as if *Express* weren't installed). A window at the bottom of the *Express* Control Panel displays a list of spooled files currently in the queue to be printed. Below the window is a one-line status message letting you know what action is currently being performed with regard to printing. Above the window is a pop-up menu that allows selecting the current print mode: "Auto" continuously searches through the print queue, printing the next available spooled file. "Next" will print the next available file, but then stops and waits for the next command (useful if you want to manually print one file at a time). "Off" stops the printing of spooled files but doesn't affect the files on disk; if you turn printing back on printing will resume with the file currently being printed (the manual warns you to reset and form feed the printer for a new start on a fresh page).

While spooling is suspended, you can select a document by double

-clicking its name. This brings up an information dialog that allows you to change the status of the document. This includes deleting the document completely to avoid sending it to the printer.

**The most severe limitation of Express is a limitation of the hybrid nature of the Apple IIgs.** Not all application programs use the IIgs Print Manager tools. When the Print Manager is inactive, Express can't spool the file to disk or send spooled files to the printer. This most commonly happens when you're not using a desktop application; this would include text programming environments, even if they run under GS/OS, and all 8-bit applications. It also happens under the Finder; with System 5.0.4, printing will stop when you're in the Finder. The System 6 Finder provides a way for Express to start the Print Manager and continue to work.

**When you exit GS/OS you will shut down Express.** Other than crashes or other unscheduled detours, this will most often occur when you leave GS/OS to run a ProDOS 8 application. When this happens, Express won't lose the spooled files on disk, but will have to stop sending information to the printer. If Express is in the middle of sending a file to the printer, the printer will probably be left in some unpredictable state of affairs. The only reasonable workarounds are to reset the printer and form feed to the next page before printing from your ProDOS 8 application or returning to GS/OS. When you return to GS/OS, Express (if enabled in "Auto" mode) will go back and print the interrupted file from the beginning (this is the only reliable way to make sure the file is printed intact).

**If you know you will be bouncing into ProDOS 8** (or printing from an application that doesn't use the Print Manager) before Express will have time to finish printing, you'll be better off entering Express' Control Panel to disable printing of remaining documents. Then after the current file has completed printing, you can exit GS/OS to do other things. When you return to GS/OS for a while, re-enable printing of the spooled files.

Even with Express, you may become impatient at the printing of larger files to a high-resolution printer (such as the DeskJet 500 or 24- or 27-pin printers); it will still be time consuming. But you will get control back quicker with Express than you will by waiting for the program to drive the printer directly. And with Express you have the option of waiting until the end of a work session to print all files while you steal some time away from the computer to work (or play, or sleep) elsewhere.

Express is \$39.95 from Seven Hills Software, 2310 Oxford Road Tallahassee, Fla. 32304, 904-575-0566.

## Mixing expressions with words.

Many Apple II users working in the sciences have been looking for some way to handle symbolic expressions from within an Apple II word processor. It's difficult because complex mathematical expressions don't follow the normal "typewriter" paradigm of uniform lines of text. Math tends to require more complicated typesetting.

We haven't seen an Apple II word processor that will let you enter such expressions within a line of text. To tell you the truth, we haven't seen them for the Mac, either; it's possible to typeset such an expression within a desktop publishing program, but it would require some sophisticated manipulation of the component symbols. The easiest way to handle it would be to allow embedding the expression into the text as a graphic, but that leaves the problem of constructing the expression.

**Seven Hill's Formulate creates the environment to make constructing the expression easier;** it is essentially a typesetting system specifically designed for the creation of mathematical expressions. Like *Pointless*, the results are easier to show than to describe. (see figure 2)

**The pictured expression is from a Formulate sample named "Minkowski".** Although they aren't visible, various elements of the expression are contained in families of "boxes" similar to text and graphics frames used in desktop publishing, except that the relation-

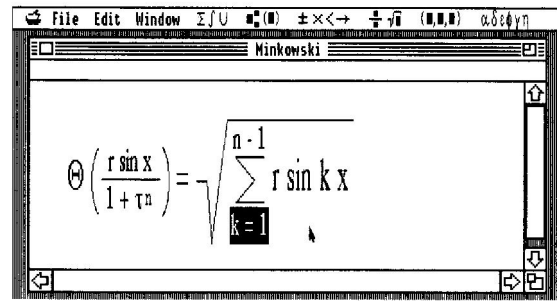


figure 2

ship of the "frames" is tightly controlled. The contents of the frames can be selected from the various menus topped with graphical symbols. There are menus for symbols (summation, integration, and so on); Greek symbols, and others). Frame structures are selected from the menus topped by the boxlike figures (look almost straight up from the highlighted "k=1" and you'll see the frame menu). For example, the symbol for a superscripted item is a large box with a small box to its upper right. There are several combinations presented in the menus for various common arrangements; the items are presented symbolically, so they're hard to describe.

**The highlighted "k=1" hints at the way expressions are built.** The "k", "=", and "1" are actually separate elements in three "frames" grouped linearly. "k" and "1" are alphanumeric characters which are entered from the keyboard linked by the "=" sign which is selected from one of the "symbol" menus (since the "=" sign is in a "symbol" frame it could be something more exotic, like a "less than or equal to" symbol). You can select one of the frames to edit by clicking directly on top of it, or the equation by clicking between two of the symbols to indicate you want the "confining" frame for all three selected.

**You can only edit the individual items, not something like the selected expression.** But you can "cut and paste" the selection elsewhere, including into another document via the clipboard (as a graphic). You can select larger portions of the expression by clicking in a area that doesn't belong to any of the individual elements, but within the area that bounds all of the elements. For example, clicking where the mouse pointer is located in the screen shot would select all the elements under the radical (that is, it would select the summation expression). You can select a portion of the expression and insert or append new items to edit the entire expression.

**Once the expression is created,** it can be printed from Formulate itself, "copied" or "cut" to the clipboard, or exported to a graphic file (as an object-composed "QuickDraw PICT file", or as a complete graphic in Apple Preferred or Unpacked Screen File formats). The expression can be "pasted" from the clipboard or imported from the file as a graphic image. For example, you can paste the expression into an AppleWorks GS page layout "graphic" frame.

The *Formulate* package comes with the program itself, several sample files, a demo version of *Formulate*, and several sizes of the Times and Symbol fonts used in constructing the formulas (if you have *Pointless*, it can scale additional sizes of the Times and Symbol fonts for you).

Embedding expressions as graphics is probably not as fluid a solution as mathematicians would prefer. It requires creating documents with both text and graphic frames and if the text is revised, the graphics may have to be repositioned (one possible alternative solution is available in *MacWrite*, and some other programs that treat a graphic as if it were a single character so that it can "flow" with the text). Still, this is a solution to a complex problem — *Formulate* makes the typesetting of the expressions themselves much more systematic than a raw desktop publishing package can.

*Formulate* is \$49.95 from Seven Hills Software.

# Marketing Educational Software

by Phil Shapiro

The first part, creating excellent educational software, is the easy part. *Marketing* it to schools and homes is the real challenge. In the past year I've discovered some helpful marketing techniques for educational software, and I thought it might be useful to pass this experience on to others.

**The first step in marketing any type of software is to get it reviewed and evaluated.** This means sending out several dozen free evaluation copies to large school districts, magazines, educational software evaluation organizations, and user groups.

Therese Pavone,  
Program Manager  
Resource Evaluation -  
Curriculum Branch  
Alberta Education  
11160 Jasper Ave.  
Edmonton, Alberta, T5K 0L2  
Canada  
(403) 422-4872

Chris Castillo  
Arizona Dept. of Education  
Computer Education Services  
1900 W. Thomas  
Phoenix, AZ 85015  
(602) 255-5061

Gary Bitter, Program Coordinator  
Technology-Based  
Learning/Research Lab  
PAYNE, Room 148  
Arizona State University  
Tempe, AZ 85287-0111  
(602) 965-7192

Cecil McDermott, Director  
Project IMPAC  
Arkansas Dept. of Education  
#4 Capitol Mall  
Little Rock, AR 72201  
(501) 371-1401

William Rust  
Office of Computer Education  
Baltimore County Public Schools  
825 Providence Rd.  
Towson, MD 21204  
(301) 887-3858

Doug Green  
Computer Services Dept.  
Binghamton Public Schools  
98 Oaks St.  
Binghamton, NY 13905  
(607) 773-4744

Booklist  
American Library Assn.  
50 E. Huron St.  
Chicago, IL 60611

Tim Winkelmanns  
Classroom Resources Branch  
78 Viewfield Rd.  
Victoria, B.C. V9A 4V1  
Canada  
(604) 356-2681

California Technology Project  
Box 3842  
Seal Beach, CA 90740-7842  
(213) 598-7661

Constance J. Lind,  
Dept. of Instructional Technology  
1091 King Ave.  
Columbus, OH 43212  
(614) 365-5100

Chauncy Rucker  
Special Education Tech Lab  
School of Education  
University of Connecticut  
Box U-64  
Storrs, CT 06269-2064  
(203) 486-0172

ISTE  
University of Oregon  
1787 Agate St.  
Eugene, OR 97403  
(503) 346-4414

Marvin Koontz, Coordinator  
Chapel Square Media Center  
4414 Holborn Ave.  
Annandale, VA 22003  
(703) 978-0075

Florida Center for  
Instructional Computing  
University of South Florida  
College of Education, 123 H  
Tampa, FL 33620  
(813) 974-3470

Jorge Ortega, Administrator  
Instructional Tech Services  
Florida Dept. of Education, B 24-E  
Collins Bldg.  
107 W. Gaines  
Tallahassee, FL 32399  
(904) 922-5776

**One place to start is with the organizations that recommend software for the annual educational software guidebook *Only the Best*, published by R.R. Bowker.** The school districts and organizations that recommend software for *Only the Best* have set procedures for evaluating new educational software. After receiving a new disk, they have four or five different professionals take a close look at the disk. These professional evaluators then compare notes and decide whether the software meets their standards. If the software is really top notch, the disk will be recommended for the guidebook. But it takes three positive recommendations and no negative evaluations for the software to be actually listed in the guidebook.

**The list of addresses where you can send Apple II educational software for formal evaluation by R.R. Bowker appears below.**

Warren Buckleitner  
High/Scope Educational  
Research Foundation  
600 N. River St.  
Ypsilanti, MI 48198  
(313) 485-2000

Home Office Computing  
Scholastic, Inc.  
730 Broadway  
New York, NY 10003

Paul Statt  
A+/inCider  
80 Elm St.  
Peterborough, NH 03458  
(603) 924-0100

Jean Donham van Deusen  
Iowa City School District  
509 S. Dubuque St.  
Iowa City, IA 52240  
(319) 339-6800

Jan Bybee  
Computer Science Dept.  
Jefferson County Public Schools  
1829 Denver West Dr., Bldg. 27  
Golden, CO 80401  
(303) 273-6940

Linda Kostner, Director  
The Learning Exchange  
3132 Pennsylvania St.  
Kansas City, MO 64111  
(816) 751-4100

Sandra Weiss  
Textbook and Software Services  
Angeles Unified School District  
1320 W. Third St., Room 180  
Angeles, CA 90017  
(213) 625-6994

Michele Sokoloff  
Media & Methods  
1429 Walnut St.  
Philadelphia, PA 19102  
(215) 563-3501

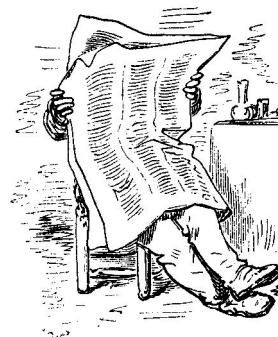
Harold McDermot  
Minnesota Dept. of Education  
682 Capitol Square Bldg.  
St. Paul, MN 55101  
(612) 297-2534

Division of Media Evaluation  
North Carolina  
Dept. of Education  
2905 Reedy Creek Rd.  
Raleigh, NC 27603  
(919) 733-3929

Linda J. Lewis  
Office of Instructional Technology  
Bonnie Johns Center  
Prince George's County  
Public Schools  
8437 Landover Rd.  
Landover, MD 20785  
(301) 386-1549

Ken Wasch, Executive Director  
Software Publishers Association  
1730 M St., Suite 700  
Washington, DC 20036  
(202) 452-1600

Holly Brady, Editor-in-Chief  
Technology & Learning  
(formerly Classroom Computer  
Learning)  
2169 Francisco Blvd. East,  
Suite A4  
San Rafael, CA 94901  
(415) 456-4333



Here are a few comments about getting your software evaluated by these organizations/magazines:

**From the time your software is received, it usually takes a minimum of two to three months before an evaluation is complete.** With magazines, you also have to factor in the lead time, which tends to be about three to four months. If your software is chosen for review (if it's not deemed worthy, it won't be reviewed), you can expect a review to appear about six months to a year after the software was first released.

You may want to call first before sending your software out for evaluation. But once the software has been sent out, there's very little else you can do. Please note that editors and organizations do not take well to attempts to persuade them over the phone about the merits of your software. The merits of your software should stand out on their own (which is how it should be).

**If you don't hear anything back after four months or so, a courteous follow-up call is appropriate.** When you send out your software for evaluation, you may want to include a stamped, self-addressed envelope, along with a polite request to send copies of any evaluations/reviews. Receiving a copy of such evaluations/reviews, regardless of their content, is a welcome indicator that the evaluation system is working smoothly.

On a positive note, 76 per cent of the educational software disks listed in last year's *Only the Best* guidebook were made for the Apple II. (A meager 15 per cent of the listing were for the Macintosh). It's helpful to know, too, that there are about 3 million Apple II's currently in use in our nation's schools. (This figure excludes Apple II compatibles and Mac LC's with IIe cards.)

#### User Groups

Apple's User Group Connection lists over 1000 Apple user groups in the United States and Canada. (For some shortsighted reason they don't keep track of overseas Apple user groups.) Quite a few of these are joint Apple II/Mac groups. Some are Apple II only; some are Mac only.

To reach the more active user groups, you might want to download a file on GEnie titled: "A2.Editor.BXY." This file lists the names and addresses of the Apple II editors at several major Apple user groups. Getting free evaluation copies of your software to these editors could help get your software reviewed in user group newsletters. Since user groups swap newsletters with one another, a review in one newsletter could be seen by people in other groups, too.

The advantage of getting your software reviewed in user group newsletters is that their lead time is usually much shorter than the lead time of the more formal magazines. It pays to stay in close touch with the editors of the newsletters, though, to make sure your software does not get shuffled back to a reviewer's back burner.

#### Lesser known publications that review educational software Rainbo Electronic Reviews

This organization publishes book and software reviews on CompuServe and GEnie. They claim to reach about a million people, but not everyone on these information services reads the reviews on a regular basis. Their short reviews tend to be written in a honest, informal style that sounds much like a friend giving an honest appraisal of a new program. Contact: Maggie Ramirez, Senior Reviewer, Rainbo Electronic Reviews, 8 Duran Ct., Pacifica, CA 94044. Phone: (415) 993-6029.

#### Library Talk & The Book Report

These magazines are relatively new on the scene: the former about five years old, the latter about ten years old.

*Library Talk* is for elementary school librarians; *The Book Report* is targeted at junior and senior high librarians. *Library Talk* endeared itself immediately to me when it published a letter to the editor containing an AppleWorks tip. Contact: Carolyn Hamilton, Editor, 480 East Wilson Bridge Rd., Suite L, Worthington, OH 43085-2372. Phone: (612) 436-7107.

#### Arithmetic Teacher & Mathematics Teacher

If your software involves math or problem solving skills, you may want to send evaluation copies to either of these magazines, which are published by the National Council of Math Teachers. The former is for elementary and middle school teachers. The latter is for high school teachers. Reviews tend to be quite short in length. NCTM, 1906 Association Dr., Reston, VA 22091. Phone: (703) 620-9840.

#### Apple Library User Group Newsletter

This publication is produced by the Apple Library User Group (ALUG), a club coordinated by Apple's corporate library. Most of the articles and reviews have a slant of interest to librarians or media specialists. But surprisingly, about 30 per cent of the 17,000 members of ALUG lists themselves as educators. If your software has appeal to school media specialists, the ALUG Newsletter would be a suitable venue for a review. Contact: Monica Ertel, Editor, ALUG Newsletter, 10381 Bandle Drive, M/S 8C, Cupertino, CA 95014. (408) 974-2552.

#### Softdisk and Softdisk GS

Softdisk is the popular monthly disk publication for the Apple II. Each month they put together a smorgasbord of different small programs for people to use. They also write brief reviews of new Apple II software of merit. Contact: Lee Golden, Editor, Softdisk Publishing, P.O. Box 30008, Shreveport, LA 71130-0008. Phone: (318) 221-2173.

If Softdisk chooses to review your software, your company name and address will appear each month in the Industry Connection file on Softdisk GS.

#### Enhance

Many Apple II users are familiar with this free newsletter distributed by Quality Computers. Current circulation is about 130,000. Contact: Carl Sperber, Editor, P.O. Box 665, St. Clair Shores, MI 48080. Phone: 1-800-443-6697.

#### A2-Central

If your Apple II software is innovative or otherwise newsy, send a copy to **A2-Central** at P.O. Box 11250, Overland Park, KS 66207. Phone: (913) 469-6502.

**Marketing educational software is most certainly an uphill struggle.** But if you've created an exceptional program that helps children learn and are seriously interested in marketing this software, you'd be well advised to focus your initial marketing efforts on getting the software reviewed.

With a handful of favorable reviews in hand, your software may catch the interest of one or more school districts. Be forewarned, though, that praiseworthy reviews are just the first step in marketing educational software. Favorable reviews are a necessary, though not sufficient, condition for marketing success.

#### References:

*Only the Best: Annual Guide to Highest-Rated Educational Software/Multimedia for Preschool to Grade 12*, Neill, George W., and Neill, Shirley Boes, editors. Available for \$29.95 from: R.R. Bowker, Order Dept., P.O. Box 31, New Providence, NJ, 07974. Phone: 1-800-521-8110.

*(Phil Shapiro is the founder of Balloons Software, (5201 Chevy Chase Parkway, NW, Washington, D.C. 20015-1747) a new Apple II educational software company. Number Squares, the company's first disk, was recommended for Only the Best. The company's second disk, Big Text Machine, displays text files in a large attractive font at a user controllable rate of display.)*

## Miscellanea

If you were hesitant to monetarily support the Apple II Alliance because you thought they were a fly-by-night outfit, hesitate no more. One of the more visible steps to focus attention on the Apple II is the placement of ads in major magazines. Look for the June issues of *Mother Jones*, *Discover*, *Sports Afield*, *The Atlantic, Inc.*, *Electronic Musician*, and *CQ* (for ham radio operators). Ads have already appeared and will continue to appear in *National Review*. For more information about the Alliance write to them at Box 20756, Louisville, KY. 40250.

**You remember reading an article about multiple column layouts in AppleWorks.** You can't recall whether it was in *TimeOut-Central*, *InCider*, *AppleWorks Educator*, or was it a tip in a letter to Uncle-DOS in *A2-Central*? You could dig through all those back issues and spend half a day looking for it (and forget what you're looking for by the time you find it) or you could order the *Kula Index* published yearly by Kula Software. It's a series of AppleWorks database files covering articles and reviews from the major Apple II publications. It's available for a mere \$9.00. They also sell a fairly large sampling of 8-bit public domain and shareware disks. For further information contact Kula Software, 2118 Kula Street, Honolulu, Hawaii 96817, 808-595-8131.

**While we're on the subject of Apple II publications, I'd like mention *The Road Apple* published by Apple II renegade, Al Martin.** The Road Apple is touted as "an Apple II End Users Underground newsletter" and is published six times a year. It contains informational articles, sometimes gleaned from the online services, sometimes exclusive. It's a great source for user group newsletters, Al's irreverent sense of humor makes it a grin to read, and hey, it's only \$10.20 a year. Al will send you a free sample in exchange for a self-addressed stamped envelope or a bottle of your favorite local barbecue sauce. Write to Al c/o *The Road Apple*, 1121 NE 177th Street, Suite B, Portland, OR. 97230.

**Paul Reich and Fred Ford are the designer and programmer**



## Ask (or tell) Uncle DOS

### Basically, a problem

Have you received word of any problems with the version of BASIC.SYSTEM on System 6? I installed this version of BASIC on the disk containing one of my old programs (actually a commercial music education program I wrote several years ago) and was startled when it repeatedly broke down with an error #53 (illegal quantity). When I restored the older BASIC everything went back to normal.

It finally occurred to me that this was happening just where I CHAINED from one segment of the program to another. My program used a POKE 41859,3 just before the CHAIN and POKE 41859,7 at the start of the next segment. This was necessary to avoid a possible breakdown at the time I wrote the program; I recall that the

necessity of these POKES was removed in a later BASIC but I left them in since it was announced that they wouldn't cause a problem. Now they seem to have become fatal, however; when I removed all POKES to 41859 the problem completely disappeared! I hope there aren't any other surprise changes of procedure in the new BASIC!

Abram M. Plum  
Bloomington, IL

### In search of...

I have an Apple IIc with AE 1.0Mb Z-Ram Ultra expander. In 1989 I purchased an Apple 3.5 Unidisk drive.

Recently, I became interested in Pascal and Turbo Pascal program applications. I can use the Ramdisk for Apple Pascal but not for CP/M Turbo Pascal. Also I can use the Unidisk 3.5 drive for CP/M applications but not for Apple Pascal or CP/M Turbo Pascal.

It is my understanding that to access the Unidisk 3.5 drive under Apple Pascal or CP/M Turbo Pascal, I need an "Attach Tools Disk" from the Apple II Pascal Device Support Tools, Workbench series.

Could you tell me where I can get the Apple "Attach Tool Disk," and at what price. I'd appreciate any information you may have on this.

Alex van de Ven  
Galveston, TX 77554

respectively of the yet-to-be-released *Star Control II—The Ur-Quan Masters* for the IBM PC. So why am I telling you about it? Glad you asked. It seems that they're not satisfied with the synthesized sound hardware on the IBM PC and have decided to use digitized sound for the game. They are going to use the Amiga standard MOD file format and need about 35 musical themes. They are asking MOD composers around the world to submit their best efforts. Those selected will receive credit in the game manual, \$50.00, and a copy of the game when published. The person who submits the best MOD will receive \$500.00. Wouldn't it be a hoot if the winning theme turned out to be produced on an Apple IIgs? For further details contact Paul Reich II, Toys for Bob, 1602 Grant Avenue. #207, Novato, Calif. 94945.

**The Morgan Davis Group has recently announced eight new software releases.** Their popular ProLine bulletin board system has been upgraded to version 2.0. It supports over 40 popular modems, hardware handshaking, advanced protocols (xmodem crc; 1k and 4k, ymodem-batch and zmodem), and new terminal emulations including ansi, vt-220, vt-102, vt-100 and ProTERM special. Screen performance is 200 per cent faster than in previous versions and a keyboard buffer is available for the Apple IIe. There's a command shell, an updated conference system with commands completely consistent with those in the electronic mail area, and online documentation. Many ProLine sites are connected to the Internet sites that you've heard power users talk about. If you've ever thought about running your own bulletin board system, this is the software to use.

ModemWorks 3.0 is a communications toolbox for programmers with Object Module Manager capability. Its primary purpose is for creating host systems but it can be used to call other computers as well. Other Morgan Davis upgrades include ModemWorks Lite 3.0, the ModemWorks Technical Reference, the ProLine Reference Manual, Object Module Manager 1.3, VirusMD2.1 and MD-Basic 1.5 Interface Update. For more information on these products contact The Morgan Davis Group, 10079 Nuerto Lane, Rancho San Diego, Calif. 91977-7132, 619-670-9643.—edr

*This disk is part of the current version (v1.3) of Apple Pascal. APDA offered updates to 1.3 from earlier versions for several years, but discontinued the update program a couple of years ago. You can get the entire Pascal v1.3 from us for \$69, which isn't much more than what an update normally costs.—TW*

### More celebrating

Last summer's Apple Central Expo helped to reinforce what many (Apple included) has forgotten, that the Apple II is still a viable computer in the age of Mac proliferation. New and advanced technology is not always what everyone needs or even wants and is not always better. Sometimes the "old stuff" is best.

I still do all of my off-air video recording on my Beta video cassette recorder. (I will admit that I did break down and get a VHS deck since Beta tapes are no longer available as rentals in my area.)

I added a CD audio player to my audio system (as with Beta, LP's are getting hard to find) but I still do most of my listening off of vinyl.

While my wife has the hots for a new Taurus station wagon, my main mode of transportation is still my rusty trusty '68 Volkswagen Beetle. (Speaking of my wife, she's the same one I started with.)

Some may say Beta, vinyl, and air cooled engines are dead. That may be with respect to the consumer market, but that is not true for those of us who still rely on those technologies and will not be convinced to leave them behind.

My Apple IIgs is still serving my needs splendidly. While I have added several new machines to my electronic arsenal and it looks like my family will be travelling in a fancy new Taurus, my IIgs (and my wife) will not be sharing my loyalties with new and improved models.

Larry Dawson  
Lincoln, NE

*What's a celebration without a prize or two? The person who writes us the most inspiring, or clever or creative letter telling us how this computer has infected their lives will be awarded the upcoming Resource Central Apple II 15th Anniversary T-Shirt. I've got a couple of second place prizes in mind as well. So dip those quills in the 'ole ink bottle and get writing! (Please don't call to ask us to ask about purchasing these gems just yet, it's a future product slated for real soon now.)—edr*

## Failing Insecure

I read Tom's column "Failing Grades II" in the March 1992 issue. I enjoyed it very much because I, too, believe that the Apple II will survive in schools and homes for a long time to come. I do wish to call your attention to one additional reason that I believe II's are purchased over other choices: Security.

I taught in the school system for a time and I can assure you that security of equipment is still a high priority. If you took your Apple IIgs, your Mac, or even the IBM, that you so lovingly take care of so that your needs are met, and placed it into most classrooms you would soon find out where the delicate features of those computers are located. Just try to imagine the event. A percentage of students in each system will try to test those weak spots for reasons every teacher wishes they could understand.

My worst disappointment with the Apple IIgs is the inclusion of these sensitive areas that jeopardize its function in the classroom. If I were principal, making the choice among popular computers, I would likely choose the Apple IIe even if they all cost the same, purely on the basis of the security of the IIe.

The next time you are pointing out the justification of the Apple IIe in the classroom see if you can't slip in a little security message too.

Paul Leach  
Cincinnati, Ohio

## Incredible

If anyone is wondering, AppleWorks GS and the Personal LaserWriter NT are a great combination for newsletters, etc. People are shocked at the quality of print that comes out.

Dennis Fay  
Levering, MI

## Multiple question

I have two questions. One relating to Apple Writer II and the other to the StyleWriter printer.

I have two Apple II computers in my possession. The first is an Apple II Plus I that I bought in 1978 under the Bell & Howell name (commonly known as the Black Apple) and the second is an Apple IIgs. I'm able to run Apple Writer II on the Black Apple without any problems but when I try to run it on the Apple IIgs, the computer just hangs. Of course, I can run AppleWorks GS on the IIgs but Apple Writer II has some neat features that AppleWorks 3.0 does not have, like WPL (word processing language), and others. So my question is why does Apple Writer II cause the Apple IIgs to hang and what can be done about it?

At work, I sometimes use the cursed Macintosh with a StyleWriter printer. While I do not care for the Macintosh, I am quite favorable impressed with the StyleWriter. The print quality is similar to that of a LaserWriter at only a fraction of the cost. Do you have any information concerning whether Apple Computer has any plans to market an interface card to operate the StyleWriter from the Apple II series? If so, I'll rush right out (as they say) and buy one.

I enjoy reading your monthly newsletter, although it has gotten away from the reason I originally subscribed. I prefer to peek and poke, rather than read the product reviews. I'm more interested in doing my own programming.

James Murphy  
Sunnyvale, Calif.

*We've run Apple Writer on a IIgs. It will hang when you try to print through the IIgs printer port; Apple Writer's printer port driver doesn't like the IIgs port hardware. Don Lancaster has published patches to fix this problem in his Ask the Guru columns for Computer Shopper. These are available from Don in collections at Synergetics (P.O. Box 809, Thatcher, AZ 85552, 602-428-4073)*

*For a printer to work from ProDOS 8, the program using it needs some sort of driver. For text mode the driver is built into all Apple IIgs; you can print text as long as your printer accepts standard ASCII character codes. The StyleWriter is one of a new breed of printer that doesn't.*

*The StyleWriter prints in graphics mode only. For graphics printers, a driver is printer-specific and we don't know of any supporting the StyleWriter from ProDOS 8.*

*There is a StyleWriter driver in System 6 for the IIgs, but it is somewhat restricted. For example, it doesn't support landscape (side-ways printing) mode.*

*If you're looking for an inkjet or (non-PostScript compatible) laser printer for the Apple II or IIgs, we'd strongly recommend a printer that includes an ASCII character set of its own such as the Hewlett Packard DeskJet. Several inexpensive inkjet and laser printers can be equipped with an Epson printer emulation, which should be compatible with many Apple II programs. The drawback is that when printing graphics images via the Epson emulation the output will not look contiguous; the image will appear to be made of very distinct dots. (Programs that print text as graphics images, such as TimeOut SuperFonts, will also*

*be subject to this limitation.)*

*If you want good graphics output, you'll need to use a program with drivers specific for the printer. For 8-bit applications, the choices are limited; Publish-It! is one of the few good choices (with drivers for high-resolution Epson, HP Deskjet, and PostScript compatible printers) If you want a more universal solution, use a IIgs desktop program to "typeset" your work and an appropriate IIgs printer driver—DJD*

*A phone call to Don Lancaster confirmed that he still has a limited number of his AppleWriter Cookbook for sale and that the easiest way to get AppleWriter to work on an Apple IIgs is simply to use a super serial card.—edr*

## Don't interrupt

For a few months now, my Apple IIgs started crashing within certain applications, giving a sound interrupt error (08FF). Can you tell me why or how I can repair it? It seems to have started with the addition of a TranswarpGS or some games my grandson plays with.

My system has an internal Megacore hard drive, 4 megs of RAM, and a TranswarpGS.

Robert Burger  
France

*A few users who've seen this error have cured it by removing the Ensoniq chip, cleaning its contacts, and reseating it. If that doesn't do it, we're stumped.—DJD*

## Superscript satisfaction

I converted a text-file created with Apple Writer to AppleWorks and found the superscript command worked differently. Using Apple Writer, the superscript numbers were tiny and distorted. The superscripted numbers printed with AppleWorks were ordinary numbers but elevated a tiny bit.

The latter (AppleWorks) method is more difficult to read, judging from the number of questions my students asked (Is this 105 or 10 to the fifth power?). I used an Apple IIgs and an ImageWriter II for printing both examples.

What's up? Are these methods of superscripting "interchangeable." Can I get the scrunched type out of AppleWorks?

Robert Hall  
Nantucket, Mass.

*You've discovered the two ways printers have of doing subscripts and superscripts. Some printers support neither, some support one or the other, and some support both.*

*Printers like the ImageWriter II have direct support for subscript and superscript characters. These are typically smaller than the standard characters. For example, the following codes are what Apple Writer was using to set up sub- and superscripts:*

Superscript Begin	ESCAPE x
Superscript End	ESCAPE z
Subscript Begin	ESCAPE y
Subscript End	ESCAPE z

On other printers, including the original ImageWriter, the only way to do subscripts and superscripts is to roll the platen half a line forward or backwards to begin the sub- or superscript, and return it to end. Obviously, printers that support this must have commands for partial and reverse line feeds. Using this method, the sub- or superscripted characters are exactly the same as standard characters, they're just a little above or below the line. These are the kind of characters your students are complaining about, but they're hard to do even on an ImageWriter, because when you send the carriage return to move the platen, the print head moves to the beginning of the line. Your program has to reposition the print head to the correct place on the line, which isn't easy, but AppleWorks can do it.

So here's a trick. If you tell AppleWorks you have an original ImageWriter (which must be how you're set up now), you get "platen rolled" sub- and superscripts. If you tell it you have an ImageWriter II (and you actually have one), you get the scrunched ones.—TW

## European Connection

A new group on the Apple II support front is becoming more serious.

The European GS Project will try to get Apple IIGS software and hardware to European IIGS owners faster and at less cost to the Europeans.

For hardware and software developers, this could mean an expansion of their overseas market.

Any developer or publisher wanting to take advantage of this new group should contact them at The European GS Project, 941 Di Giulio Avenue, Santa Clara, CA 95050, 408-727-8902.

John Majka  
Louisville, Ky.

## It's alarming

I recently purchased HyperCard IIGS and had problems booting as well as the system locking up. It was necessary to shut off the power in



order to gain control of the computer. I discovered the culprit was AlarmClock.NDA.

As near as I can figure, both HyperCard and AlarmClock.NDA poll the system clock and in doing so, lock the computer.

Fred Greatorex  
Pascagoula, Miss.

## LaserWorks

I have both an Apple IIGS and a Macintosh IICX and I'm thinking about buying a laser printer. Will any true Postscript printer work with the LaserWriter driver under GS/OS? Will the ImageWriter emulator work with such a printer on an AppleTalk network? I'm leaning toward the GCC Technologies BLP Elite or BLP II if I can use both computers with it.

Eddie Clark  
Denton, Texas

If the printer is a genuine postscript printer, the answer is yes.—DJD

## Optical mark reader probs

Under Applesoft and the Beagle Compiler, I've written a program to input data from a Scantron 1500 Optical Mark Reader through the Apple II modem ports and then decode. I have a problem.

All ASCII codes pass through the port just fine except ASCII 127, delete. The following subroutine allows me to pass ASCII 127 using A\$"Z" on the Apple IIC and IIC Plus but not on the Apple IIGS. On the Apple IIGS, evidently the

port doesn't recognize the command and eats ASCII 127. What am I doing wrong? I thought all ports respond to A\$ commands.

```
6710 REM Input Scantron Form
6720 A$ = CHR$(1) : D$ = CHR$(4) : PRINT D$"PR#2"
6730 PRINT A$"10B"A$"4D"A$"Z"
6740 PRINT CHR$(17) : REM Unlocks the reader
6750 PRINT D$"IN#2"
6760 INPUT "": T$
6770 PRINT D$"IN#0": PRINT D$"PR#0"
6780 RETURN
```

By the way, the program is used to handle registration and auditioning of state honor high school bands and choruses. The student marks one form to register, the judge marks another for scoring and walla, the students are ranked and the results can be posted immediately. The work of 20 people at calculators all day handling several hundred auditions is now reduced to one.

You've probably guessed it by now, I'm a band director. Hope you can help. Keep it simple, I'm pretty good in Applesoft, poor in Merlin assembly.

Barry Lumpkin  
Memphis, Tenn.

First of all, Barry, your problem isn't with the port on the IIGS. The serial interface "Z" command prevents the port firmware from messing with what you send through the port. It has no effect on incoming characters. So we're going to have to look elsewhere.

So let's see if we can enter an ASCII 127 into an Applesoft program from the keyboard, never mind the serial ports. Try this on your IIC and then on your IIGS:

```
10 INPUT A$
20 PRINT LEN(A$)
30 IF LEN(A$) > 0 THEN PRINT ASC(A$)
40 GOTO 10
```

After you run the program, press a single key and then press Return. If you try out all the keys, you'll find that your statement "All ASCII keys pass through...just fine..." isn't correct. Applesoft can't see ASCII 0 (Control-@), ASCII 8 (Control-H), or ASCII 21 (Control-U) with an INPUT statement. On a IIGS, it can't see ASCII 127 (Delete) either. But on a IIC it can, as you've already discovered.

When I changed line 10 in the above program from INPUT A\$ to GET A\$ and ran it on a IIGS, I was able to collect every keyboard character (including Delete) except Control-@. I suspect this will work in your program, too. Try changing your INPUT statement into a GET loop, like this:

```
6760 T$=""
6765 GET TT$ : IF TT$<>CHR$(13)
THEN T$=T$+TT$ : GOTO 6765
```

I think this will solve your problems.—TW

## A2-Central™

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