

## A journal and exchange of Apple II discoveries

### Multimedia magic on a shoestring

by Vern Mastel

Multimedia. The word rolls off every tongue in the computer world these days. Multimedia is not a new idea. It is not a new technology. It is a blending of new and old technologies. It is taken from the way we think and do things in our everyday lives. Every human being comes equipped with the best multimedia engine possible, a brain. We think in multimedia, we eat sleep and breath multimedia. When I say coffee, you see a steaming cup, or smell the aroma or taste the hot bitter flavor. When you see a picture of a polar bear, you may feel a chill or you may visualize a cold drink or you feel the frigid arctic wind. The blending of digital and analog technologies into "multimedia" allows information to be presented in more rich, more diverse, more informative ways.

The movie industry has done yeoman duty as the multimedia source since the turn of the century. First came silent movies, then the "talkies." Note that even silent films had music scores, usually played on a piano in the theater, the goal of which was to enrich the images on the screen. In the past decade, the video industry has broadened the scope of the movie to include everything from prerecorded movies to training tapes to do-it-yourself home videotaping. Surround sound is a form of multimedia. It is a resurrection of the old "quadraphonic" sound system that failed miserably in the mid 70's, mostly because sound alone does not adequately deliver a real-life type of experience. The advances in software and hardware technologies now make multimedia less expensive and more accessible to everyone.

What I will show you are ways and means of creating high quality multimedia presentations using simple off the shelf tools that don't cost a fortune and are available in most homes and schools.

**All the careful planning and preparation will go for nothing if you don't know how to run your equipment.** If you are a technological reactionary, one of those people who proudly proclaims their inability to program a VCR, stop reading here. On the other hand, if you are fascinated by the latent potential that's oozing from high tech hardware, read on. Remember, a thorough understanding of what the hardware can do is invaluable when it comes to applying creative solutions. *Minimal hardware combined with maximum knowledge will always triumph over maximum hardware and minimum knowledge.*

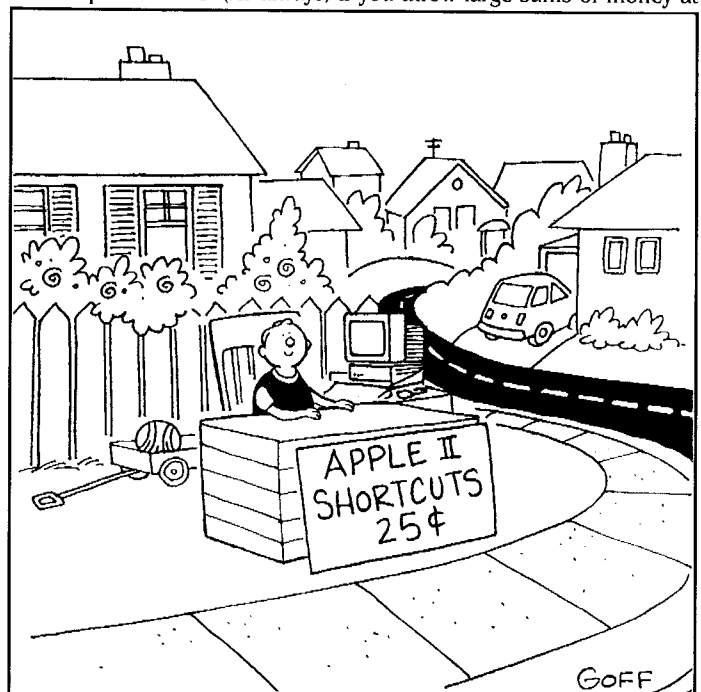
Look at Figure 1 on the following page. This shows a basic multimedia workshop with the necessary, and the optional, signal sources. Many people have a problem with technology because they oversimplify the complex and over-complicate the simple.

**This is not a complex system.** Start from the top and work your way down. The monitor is necessary to see what you are sending to the master VCR, i.e. what you are recording. The master VCR does all the recording work. The audio/video mixer becomes grand central station. It controls what you see and what and how much you hear

from each source. The unit used need not have any video capability. Video sources can be switched to the VCR using inexpensive switchboxes. Moving down the diagram, the laserdisc is the main video source for two reasons. It is computer controllable, allowing for fully automated control of still images and sequences. Secondly, it can deliver randomly accessible motion, animation, and (assuming you are using CAV discs - see glossary for terms) still (freeze) images.

I include CD-ROM as a source, not for video material, but for audio material. Audio is an important part of multimedia. It can set a mood or heighten the impact of an image. It can fill long silent spaces, making them seem shorter. The CD-ROM, like the laserdisc, is fully controllable from the computer. The computer gives you absolute and immediate control of track select and playing time, capabilities that are indispensable when creating complex sequences.

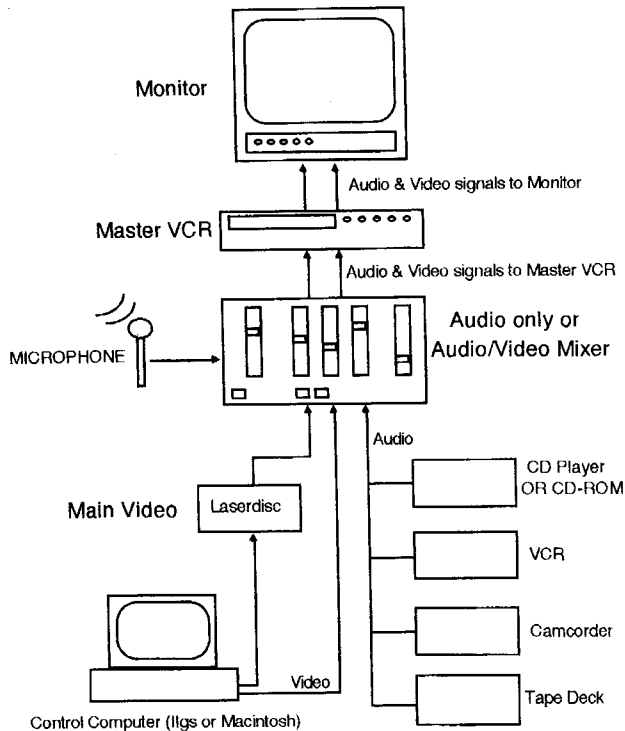
**The control computer can be an Apple IIgs or Macintosh, although this article will focus on the former.** Both machines can control the CD-ROM and laserdisc simultaneously. Both machines can be used to generate screen titles, credits, animations and even cue cards for the producer. The IIgs has the edge here because it has NTSC compatible video output. NTSC is the video signal standard used in the United States. All VCRs and camcorders supply, and many TVs and monitors accept, NTSC video signals. The Macintosh doesn't directly support NTSC video out, but there are several companies that produce video output boards for Macintosh computers that do. Be aware, however, that the results can be less than great. The Macintosh generates a high resolution picture, but NTSC video is a low resolution medium. There is a noticeable loss in quality when converting Mac output to NTSC. (As always, if you throw large sums of money at



the problem, approx \$2000, the problem goes away). If you are lucky enough to have several computers at your disposal, use one (Mac) to control and one (IIGs) to supply screen titles.

**The ideal software control tool is HyperStudio.** It has built-in capability to handle the laserdisc and can run the CD-ROM with an additional XCMD (available from Roger Wagner Publishing). Unknown to most HyperStudio owners is the capability to do complete scripted control of these two devices. In other words, you can create an automated sequence of video and audio activities using Hyperstudio's SimpleScript language. Rather than punching buttons at a frenzied pace when cueing and executing video sequences, you can set up a complete list of actions and have them execute from one button push.

**The mixer that I use regularly is a simple device.** A Sima model Video Ed/It 2, it has two video plus audio (a/b) inputs with switching and fade, one music (CD or CD-ROM) input, and one input for a micro-



phone, normally used to add narration to the multimedia production. Each input has its own level (volume) control, with a master output level control. The fade feature is the only "frill" that the unit offers. This functions by fading the video and audio signal from the chosen input to zero (black and silent) in about two seconds. This is handy in switching from one scene to another or when switching from one input to the other. There are a variety of video/audio mixer units, but most of them don't fit into the "shoestring" budget. If your shoestring is large, check out the units made by Panasonic and JVC.

**The arrows in the figure show the flow of signals (information) through the multimedia workstation.** Always think of signals as the water in a river. It starts somewhere and flows elsewhere, always with a beginning and an end. In this case, they come from CD-ROM, Laserdisc, Camcorder, cassette tape, CD players and other VCRs. The signals flow from the sources to the audio/video mixer. This is where you control which video and audio sources continue to flow down the river to the monitor and recorder.

**The equipment needed can be divided into two categories.** Signal sources include the VCR, camcorder, CD-ROM, CD player, and the stereo cassette tape deck. Control equipment and software; includes an Apple IIGs with HyperStudio, an audio video mixer unit, and editing software for titles and informational screens.

**The VCR is a very important part of the multimedia workshop.** It does the most work. Everything flows to it, it becomes the "printer" (a concept coined by Roger Wagner) of the multimedia world. While any VCR will be enough to do the recording, certain VCR features are desirable.

At the top of the list is *flying erase heads*. A conventional VCR has the tape-erase head mounted in the tape path ahead of the video-head drum. Starting and stopping recording with this type of machine always produces ragged and unsightly picture distortion. Flying erase heads get their name because they're located on the video-head drum itself. They rotate at high speed along with the video record/play heads. Starting and stopping the tape doesn't compromise the picture quality, because whatever is erased by the flying erase-heads is immediately replaced by video. Transitions from frame to frame are crisp and immediate. Many camcorders now also have this feature.

Second on the list is *jog/shuttle control*. This feature allows you to separate the good from the great productions. Jog/shuttle lets you move the tape forward or backward one frame at a time for precise control of editing.

Few school VCRs have these two features, but they will work to produce your shoestring video masterpieces. You simply substitute creative production for hardware capability.

One feature of many newer VCRs that gets in the way of multimedia producers is *on-screen display of operating modes*. These VCRs show the word PLAY on the screen when you press PLAY, STOP when you press STOP, and so on. This gets recorded on your tape. The solution is to avoid this type of VCR.

Lastly, all VCRs have ALC (automatic level control) in the audio circuits. This is needed when taping from television, but can get in the way when recording spoken audio from the microphone. Breath pops and microphone handling noise can cause the ALC to turn down the recording volume, which results in uneven volume on playback. The only solution here is to be careful how you speak and to use a microphone stand. Don't hold the mike in your hand.

## Multimedia production steps

The first step on the creative side of a multimedia production is the planning of the production. All of the hardware in the world is of no value without proper preparation. Before you touch the VCR, Laserdisc, or any other digital device, you need a plan. Planning must cover every aspect of the multimedia production.

**What is your subject?** Is it a broad topic? Have you thought out the material and focused on what you want to say? For example, if you pick a subject such as astronomy, you have a diverse subject. You either stick to a general treatment of the subject or you focus on a specific subtopic such as galaxies or neutron stars or solar systems.

**Think about how much time is available.** Is this going to be a two-minute quickie or do you have ten or twenty or more minutes of time to use? Bear in mind that the longer the production, the more material you need to prepare and the more cautious you must be. You want to avoid boring your audience. Be cautious of how you present your material. Don't get so wrapped up in the technology that you lose sight of your goal, which is to present useful information in an attractive and interesting manner. Also remember to be flexible. No plan is chiseled in stone. If you come across a source that's better than one you had planned to use, adjust your plan if there's time.

**What sources of information are available?** Are there photographs, pictures, or other still images in printed form that need to be put into electronic format? What about that videotape of the class outing to the local heritage center? Is the material part of a laserdisc package? Is it a commercially produced videotape? Is it material that you need permission to use or reproduce? One of the best sources of material that is easily handled electronically is laserdisc. There are thousands of titles available on every subject from aardvarks to zucchini from hundreds of publishers.

**The story board is at the heart of the planning process.** It supplies the link between the script and the shooting plan. The story board is a step-by-step map of what will be seen and what will be said. Clear, concise images are important. The storyboard images depict what you want the viewer to see. The accompanying script is what you want them to hear. *Multimedia demands that you think in several dimensions simultaneously.* Visuals, sound effects, background music, narration (both included and add-on) are all part of the complete experience that you will bring to your viewer. The storyboard works best when the key visual element of each step is shown on each page of the board. The images can be descriptions, hand sketches, still photos or anything else that works.

It is important to think like a programmer when doing the storyboard. Ask yourself who is the viewer, what is supposed to happen, where does the material come from, when does everything happen. More information means more interesting material.

Throughout the following sections on production techniques, you may assume that the source computer is an Apple IIgs with the video output connected an input on the audio/video mixer. The other video source can be a VCR, a camcorder, or a laserdisc player.

**A good production is blended, not violently shaken.** Think of how all the pieces fit together, much like the pieces of a puzzle. The pieces in this case are audio and video, still and motion, color and black and white, computer screen and video source. Think of the video and audio parts of the production as two sides of the same coin. One should play off the other.

When organizing the flow of material to be presented, try to cue video sequences in advance. For example, the first screen you will use is from the computer and is followed by a sequence from the laserdisc. While you are recording the computer-generated screen, cue the laserdisc to the spot where it will start. You can then fade out, switch to the laserdisc output and fade back in without a break in the program. This can save time on transitions and make for a much smoother flowing production.

Make use of fades and transitions already built into many commercial productions. Many prerecorded video sequences have their own fade in and fade out. Use them as part of the production, don't try to edit around them. Transitions between different segments can be auditory, visual, or a combination of the two. Narration can continue while you fade from one image to another. Background music can continue across a series of still pictures, tying them together with an invisible but effective link.

Special effects should be held to a minimum. Remember you are trying to convey information in a significant and interesting way, not overpower your viewer.

Be cautious how you compose your title screens. Too much color can detract from the information presented. No color can look sterile and lifeless. Strive for balance between the two extremes. Use colors that add contrast without clashing. Try to avoid thin lines, since these often get lost on overhead displays. If a title screen is text only, position the text toward the top of the screen, never let it reach the bottom. Be sure that the size, color and style of text that you use is readable under the worst conditions of poor lighting, poor seating, and myopic viewers. Your favorite calligraphy font may look great on the computer screen, but may be unreadable from the back of the room. If the screen is a mixture of graphics and text, decide which is more important, the picture or the words, and size them accordingly. Supply visual references for images that deal with size. If you show your audience a picture of a hill and say that it is ten-thousand feet tall, try to include something in the image that the audience can relate to that supplies a comparison, such as a skyscraper or building.

Ever wonder how come a band doesn't play the same type of song in every set? The reason is variety; they don't want to bore their audience. The same applies to content in a multimedia production. Include variety, contrast, and comparison. If you are talking about something big, use big pictures. Follow up with little things to empha-

size the contrast.

Lighten up. If the situation allows, include some humor. But be cautious here, you can easily confuse you audience if the humor is too subtle, too late, too anything.

Pace the production to maintain the interest level of the audience. Still images displayed too long, with or without narration, will put your audience to sleep. Images that flit by too fast to see can alienate the audience, unless the speed is used as a special effect.

Create animations to stress points that you don't have video material for. A heart pumping blood, a piston moving inside a cylinder, a disk drive spinning are all suitable for an animation. Animations can be done in two ways. One way is to frame grab (digitize) still images from a laserdisc and then use *Platinum Paint* or *HyperStudio* to create the animation. The other approach is to use the time-honored procedure of creating (drawing) each frame and then assembling them into the animated sequence using the two programs mentioned.

Let's not forget audio techniques. Narration and background music are the two main tools you will use. Narration is immensely powerful. With it you can guide the viewers' eyes to see what you want them to see. Instead of pointing to something in a picture with your finger or a pointer, you use your voice to point. With narration you can evoke strong reactions to images presented. You can explain, argue, plead, or challenge. The speaking style, tone, and pace all contribute to the mood.

Background music is effective. Composers of film scores talk about the role of music in a movie. They talk about how the music underscores and highlights the visual part of the movie. The same thing applies to your shoestring video production. When picking music, try a variety of pieces to complement a given video sequence. Record the sequence with each musical possibility, with or without narration as appropriate. When you view the different combinations, pick the one that really feels good, the one where the music blends right into the images to the point where you don't even notice it.

**Before you take your production "on the road," show it to someone who has no knowledge of the subject matter.** Ask them to evaluate it on the basis of content (does it inform?); continuity (does the information fit together?); clarity (does it make the points you want?); and length (is it, or any part of it, boring?).

If the evaluator turns up his or her nose, don't have a snit because your creation has been criticized. Ask what and why. Then fix the offending parts. Even the best movies usually get one bad review.

#### **I use the following equipment in my video productions:**

- **Sima Video Ed/It 2** (Sima Products Corp., 8707 Skokie Blvd, Skokie, Ill. 60077). This unit should be found at your local video/camera retailer and includes a microphone and connecting cables.
- **Apple CD-ROM.** There have been three models of the unit since its introduction in 1988. They are the original CD SC, the upgrade CD SC Plus in 1990, and the current CD 150. All units are compatible with both the Macintosh and the IIgs.
- **a laserdisc players with computer interface.** Although Pioneer Industrial is the dominant supplier of these units, models are also available from Hitachi (models 9500, 9550 and 9600) and Sony (models 1000a, 1200, 1450, 1500, 1550, 2000, 3600). Pioneer models include the 2200, 2400, 4200, and 8000.
- **HyperStudio for the Apple IIgs.** (Roger Wagner Publishing, 1050 Pioneer Way Suite P, El Cajon, Calif. 92020). This is available in single, 5, 10, and network packs.

The output of the IIgs video port is too strong for some video devices. A simple fix is to insert a 68 ohm 1/2 watt resistor in series with the output. This can even be made into a patch cable.

Here's a glossary of terms you should be familiar with before embarking on a video production.

- **Audio.** The sound portion of a signal, usually used to refer to the sound itself.
- **CAV.** Constant angular velocity recording on a laserdisc. CAV discs

can have 54,000 individually addressable frames (pictures) per side. Since one screen is recorded on each disc revolution, CAV discs support freeze-frame and frame-range access modes.

- **CLV.** Constant Linear Velocity recording on a laserdisc. This method is used for recording movies. It allows for longer playback time, up to sixty minutes per side, at the expense of individual freeze-frame capability. Material recorded on a CLV disc can be accessed by time or chapter reference.
- **CD-ROM.** Compact Disk Read Only Memory. Physically the same as the music Compact Disc, the CD-ROM contains data in the form of text, pictures, sounds or video, all accessible via computer.
- **Fade/Fading.** reducing the volume of an audio track to zero. Also can refer to reducing a video signal to zero, or black.
- **Hyperstudio.** A user-friendly environment for the Apple IIgs computer that allows you to combine sound, images, and textual information in a screen or file-card based format.
- **Laserdisc.** Also referred to as LaserVision (trademark of Pioneer), laserdisc is a video playback medium which uses 12 inch digitally encoded discs.
- **Mixer.** An electronic device which combines signals from several sources into one.
- **Monitor.** A television or video display that accepts video signals.
- **NTSC.** National Television Standards Committee. This standard defines the composition of the video signal to insure compatibility. The standard was set in 1953 and is one of the poorer choices that could have been made.
- **Transition.** Anything that connects images or sequences to each other. A transition can be done visually, with sound, or with a combination of the two.
- **Video.** The visual part of a signal, usually used to refer to the signal generated by a VCR or camera; it may contain audio as well.
- **VCR.** Video cassette recorder.
- **XCMD.** Extended Command. A subroutine that is separate from the *Hyperstudio* program. It adds additional capabilities to the program. There are several dozen XCMDs for *Hyperstudio*.

## Subtle switcher differences

by Dean Esmay

You've probably read by now about *Switch-It!* by Procyon Inc., published by Sequential Systems. You've probably also read about *The Manager* by Brainstorm Software, published by Seven Hills. And you've probably wondered to yourself what the difference was between these two programs.

**Despite the hyperbole Seven Hills uses in its marketing – referring to *The Manager* as a "Multifinder" for the IIgs, the truth is that from a real-world perspective there's not a whole lot of difference between the two programs.** Both allow you to run IIgs applications and keep them in memory. That is, you run one program, then you can instantly switch back to Finder (or another program selector) and run another program – and keep that in memory too. Then you can switch from one program to another almost instantly – since they're all in memory, switching is a snap.

And you can keep adding applications, too. There's no hard limit to how many applications you can have running at once with either program. Rather, you're limited both by how much standard RAM you have in your computer and by how much "stack" memory each application takes up.

The IIgs has a 64K stack, part of which is used by the system software and by *Switch-It!* or *The Manager*. Programs like HyperCard IIgs are stack hogs, so you can't get much else in if you're using them. On the other hand, there are small applications such as Teach that don't use much stack space at all. For all practical purposes, it seems like you can get an average of 3 to 5 applications loaded at once in either *Switch-It!* or *The Manager*.

**Once installed, switching between programs is close to the same in both environments.** With *Switch-It!* you get a special little icon at the right hand side of the menu bar, from which you can pull-down a menu listing of all your currently loaded applications. Pick one and you're immediately switched to it. With *The Manager* the special little icon is at the left end of the menu bar, and you get a couple of minor configuration items. Otherwise, they work the same way.

**With *Switch-It!*, you have a special program called *Switch-It!* that is always present and can be switched to at any time, from which you can configure *Switch-It!*, launch other programs, or quit.** Any time you want to do something like launch a new application or change your settings, you switch back to the *Switch-It!* program itself to do it. Though, if you want, you can set *Switch-It!* up to allow you to launch programs from Finder instead.

***The Manager*, on the other hand, doesn't have a "program" of its own per se.** When you start *The Manager*, you wind up back in Finder. You have a Finder Extra that you pull down to handle configuration options and you do all your program launching from Finder automatically. However, if you don't want to keep Finder in memory at all times (after all, it does take up memory, both stack and regular), you can also use the built-in mini-launcher that comes with System 6.0, which you get just by quitting from Finder.

Okay, so beyond these minor interface differences, are there any real differences?

Yes. *Switch-It!* only allows program switching using the special pull-down menu. When you switch to another application, whatever application you're currently using is hidden and suspended, while the new one takes over the screen.

*The Manager* can work sort of like MultiFinder on the Mac. Applications can all stay on screen at once. If a window is open in one application, and another window is open in another, you'll see both windows on the screen. Click on a window, and whatever application that window belongs to is immediately brought to the front.

Furthermore, *The Manager* has the theoretical capability of letting you actually keep two or more programs running – not just residing in memory, but one actually working while the other is working. So, for example, you might be able to have Teach printing a large document while you pop over to HyperCard IIgs to do a little horsing around with HyperTalk.

**The important caveat here is that this capability is theoretical – neither of the programs I just mentioned is actually capable of multitasking.** Applications must be written in a certain specific way in order for this to work. And unfortunately, the vast majority of IIgs applications cannot multitask at this time.

And, while it's nice that *The Manager* allows you to keep the windows of multiple applications on screen at once, a whole lot of IIgs applications write directly to the screen instead of just drawing windows on the background, so they don't allow the windows of other applications to appear on screen. Common applications that do this include *HyperCard IIgs*, *HyperStudio*, and *SynthLab*, not to mention almost every major IIgs game ever written. So you wind up having the extra step of using the configuration menus of *The Manager* to have it "hide" these applications when they're not in use – so you wind up having to use the switching menu a lot anyway.

***Switch-It!* and *The Manager* differ in how they handle New Desk Accessories, too.** Since it winds up being impossible to keep an NDA "live" between applications, both programs handle it differently.

*Switch-It!* takes the simple and straightforward path – it simply closes any NDAs you have open before switching to another application.

*The Manager* takes a more complicated path – it keeps any open NDAs open when you switch between applications, but the NDA stays "attached" to whatever application you opened it in, and while open cannot be used in any other application. If you click on the NDA to bring it to the front, the application you opened it from comes to the

front, too. To use the NDA in a different application, you have to first close it, then switch to the application you want to use it in, and then open it again.

It's debatable which is the more annoying way of doing things. With *The Manager*, at least the NDAs stay open and active. But with *Switch-It!*, you don't have the aggravation of having to go back to the program you opened the NDA from just to use it. You can decide which way is better for you - neither is particularly elegant.

**A major restriction of both programs is in the use of ProDOS 8 software.** Because of the way ProDOS 8 works, it's simply not possible to keep ProDOS programs in memory and switch between them as you can with GS/OS programs. Worse, you can't even keep 16-bit programs in memory before running any ProDOS 8 software. You have to quit from whatever 16-bit software you're currently using before launching any 8-bit programs.

**However, here *The Manager* has a clear advantage over *Switch-It!*.** With *Switch-It!*, you must go in and quit from every single IIGS program you're using, including *Switch-It!* itself, before you can launch any 8-bit program. With *The Manager* you still have to quit from most applications, but you can leave both *The Manager* and the IIGS Finder running when launching an 8-bit application. Both will still be there and ready to use when you quit from whatever 8-bit software you're using. As someone who still has to use 8-bit software fairly frequently, this is a major plus for me.

Note that Jawaid Bazyar, *Switch-It!*'s programmer, said in an interview on GENie a few months ago that he might modify *Switch-It!* to handle ProDOS 8 software more elegantly, but it's not clear if and when this will happen.

***The Manager* is also a bit smoother in a few other areas.** For example, in *Switch-It!*, if you try to launch an application that you've already got in memory, you get a dialog telling you you can't run have the same program in memory twice. *The Manager* is smart enough to recognize when you're trying to launch a program that's already in memory and simply switches to it automatically.

Furthermore, while there are programs that are not compatible with *The Manager* or with *Switch-It!*, *The Manager* allows you to specify applications which are not compatible, so that when you try to run them, you're stopped and told that the program is incompatible. *Switch-It!*, unfortunately, will let you run any old thing at all, and if it doesn't work, you just crash (or experience whatever other weird problems that application might cause under *Switch-It!*).

**On the other hand, *Switch-It!* does have a handy feature that will let you "fix" certain applications that don't seem to be compatible.** While it doesn't do this with all software, when it encounters certain software that it recognizes as incompatible, it will give you the option of trying to "fix" the program. I've had this work on a few occasions.

Then again, this option is also quite frightening because neither *Switch-It!* nor the documentation tell you what it's doing when it "fixes" a program. Telling a program to do something to one of my applications without knowing exactly what it's doing is nerve-wracking. When I told it to go ahead and "fix" my copy of ProSel-16, which wouldn't work, the "fix it" option fixed it so good that ProSel-16 no longer worked at all, whether using *Switch-It!* or not. I had to restore from my original master. Major nega-kudos to Procyon and Sequential for not documenting this option better and providing appropriate warnings about the dangers of using it.

**With *The Manager*, certain necessary or useful functions, such as checking how much memory you still have or specifying configuration information for an application, have to be handled from the Finder** - whether you've chosen that as one of your memory resident applications or not. *Switch-It!* is always available as a utility program on its own menu, and also provides handy New Desk Accessories to handle other functions, which you can activate from any application (and which are all highly useful whether using

*Switch-It!* or not, especially the wonderful ScrapMaster NDA).

Both *Switch-It!* and *The Manager* have a distressing tendency to crash when things go wrong and there's a goodly amount of software that doesn't work with either program. Some programs that work fine with *The Manager* (such as ProSel-16) act completely bizarre or simply crash the system when used with *Switch-It!* On the other hand, I have found programs that work just fine with *Switch-It!* that don't get along with *The Manager* at all (an embarrassing example being Seven Hills' own *Kangaroo* - I had to call them and get a special version just to get it to work, and that special version was still in testing and not available to the general public when I got it).

**While both *The Manager* and *Switch-It!* are very nice when used with IIGS desktop software that is compatible with them, I have to advise caution before purchasing either program.** Contact the publisher or whatever vendor you plan on buying either program from and make sure it's compatible with the software you most want to use it with.

All other things being equal, it's hard not to recommend *The Manager* over *Switch-It!*. *The Manager*'s superior (though still limited) handling of ProDOS 8 software, its MultiFinder-like interface (while quite limited with some software), and its potential for multitasking (while as yet mostly unfulfilled) make it the stronger of the two programs.

And yet *Switch-It!* does have advantages of its own, not the least of which is simplicity - there's just less to muck about with when using *Switch-It!*. Not everyone needs or cares about multitasking, and one has to wonder if, by avoiding trying to multitask at all, *Switch-It!* is avoiding opening a whole new can of worms that *The Manager* users will be forced to deal with.

**Both programs could use at least two improvements** - the ability to configure them to load certain software automatically at startup (instead of forcing you to launch each program you want one at a time) and the ability to shut down multiple applications at once (instead of having to switch to each application one at a time and quit from it).

A demo of *Switch-It!* was included on the February 1993 **A2-Central-on-disk** and a demo of *The Manager* was on the April 1993 issue, if you'd like to try the programs for yourself before buying.

On the whole, both are neat environments, well worth investigating if you frequently use multiple IIGS desktop programs. But neither is perfect, so proceed with caution.

## Miscellanea

**The Morgan Davis Group announced a new software bundle designed to save programmers money.** (And what Apple II programmer doesn't need to save money?) For the first time, \$99.00 will buy three of their most popular products, saving customers over \$80.00 over the combined cost of the products. This bundle, dubbed The BASIC Programmer's Workshop, consists of Davis' popular and well respected, *MD-BASIC 2.0*, *RADE 1.0*, and the *Object Module Manager 1.3*. The *Object Module Manager* is an extension manager for Applesoft programmers that makes it possible to add external commands, thus enhancing BASIC programs. Modules are loaded and unloaded as necessary, making the program memory efficient. Custom modules can be created by the developer. OMM comes with sample source code in ORCA/M and Merlin formats, sample programs, and a starter set of modules. OMM comes complete with a 67-page manual. The other portions of the Workshop have been described in previous issues of **A2-Central**.

The MDG confirmed its commitment to the Apple II universe in another way by lowering its price on *Proline*, the highly regarded professional bulletin board system, by \$100. The retail price of *Proline* is now just \$159.00. One of *Proline*'s major advantages is its ability to connect to Internet, which is becoming the world-wide digital network. It also offers terminal emulation compatible with all types of

personal computers, high speed modem support, and a wide range of transfer protocols. *Proline 2.0* comes complete with three 800k disks and a comprehensive 350-page manual. It requires an enhanced Apple IIe or Apple IIgs, 64K of RAM, and at least 2 megs of free ProDOS disk space. *Proline* is available right now at the reduced price from the Morgan Davis Group, 10079 Nuerto Lane, Rancho San Diego, Calif. 91977-7132, 619-670-0563, fax 619-670-9643. Anyone who purchased *Proline* after March 22, 1993 at the old price can contact MDG for a \$100.00 rebate.

**Attention AppleWorks power users!** Douglas Gum and Office Productivity Software announce that *AmperMacros Plus*, a set of enhancements for AppleWorks 3.0 and either *UltraMacros 3.1* or *UltraMacros 4.xx* is ready to ship. The product is aimed at those who wish to write professional quality macros and task files. It contains 60 & commands for *UM 3.1* users and 50 external dot commands for *UM 4.xx* users. This package replaces *AmperMacros* and *AmperMacros II*. Features for either type of macro programming include full floating point, integer, date and time math operations, text operations, and user-interface functions. As a bonus for Apple IIgs users, Gum includes an AppleWorks Launcher program that allows an AppleWorks data file icon to be launched automatically by double-clicking it. The cost is \$30.00, including shipping and handling, and is available from Office Productivity Software, P.O. Box 2132, LaGrange, GA 30241-2132. The company maintains a "satisfaction guaranteed or your money back policy."

## SFPD

**Lost Classics Project Strikes Gold.** GEnie's Lost Classics program, headed by maverick Apple II'er Tim Tobin, scored a coup a few months ago by getting programmer Bill Budge to agree to release much of his old game software as freeware.

Unfortunately, because all of this software was designed for the Apple II-Plus under DOS 3.3, converting it to the modern ProDOS environment has been a problem. After months of work, a ProDOS compatible version of *Raster Blaster*, the classic pinball game, was released by GEnie subscriber Larry Beam (L.BEAM1).

**Raster Blaster is now a freeware game offering exciting, non-stop pinball action.** Using a joystick, paddles, or your keyboard's Command and Option keys (Open- and Closed-Apples for you old-timers), just hit the ball and keep it going, just like you would in a regular pinball game.

Thanks go out to Bill Budge for writing and later releasing *Raster Blaster*, Tim Tobin for finding Budge and getting him to release it, and to Larry Beam for handling the conversion to ProDOS.

The ProDOS conversion of *Raster Blaster* works on any 64K or better Apple II.

**Are you a mod or are you a rocker?** Well, if you're either or neither, but you are a IIgs user, you might be interested MODs, a form of music song file originally created on the Amiga.

MODs are popular because they use high-quality digitized sounds for making music and because the format itself is fairly powerful and easy to use. They also provide a fairly universal format - though MOD originated on the Amiga, you can find MOD players for the PC and the Macintosh, as well as several for the IIgs. The best of these is quite possibly the freeware program *MODZap*.

The most recent version of *MODZap* we've found, v00.81a, is probably the most reliable and flexible MOD player in the IIgs world. While it doesn't allow you to create new music files, it plays existing MODs (of which there are hundreds, maybe thousands, available in the public domain) in high-quality fashion. Other MOD players, such as the old FTA's *NoiseTracker*, while they may have more features, aren't quite as flexible when it comes to playback quality. Furthermore, there are variations to the MOD format that programs like *Noisetracker* can't handle and I've encountered many of these. I've yet to find a

MOD that *MODZap* couldn't handle.

One thing to keep in mind for MOD music, however - those who create MODs seem to have a strong predilection for jazzy techno-pop and "acid house" type hip-hop/rap music, which means that those are what the majority of MOD songs sound like. If you don't care for that kind of music you may not be too interested in *MODZap* or anything else involving MODs.

On the other hand, if you do like it, you'll be astonished at just how good the sound quality is on MODs - in many cases, amplified properly, you wouldn't be able to tell it from what you'd hear in a dance club.

*MODZap* is a freeware program by Ian Schmidt, author of *AudioZap* (a freeware sound digitizer and converter) and *SoundConvert* (published by Triad Ventures). *MODZap* can be found on this month's issue of **A2-Central-On-Disk**, on most of the major on-line services, and in many user group libraries and public domain software houses.

**Missed it by THAT much.** Remember the old video game, *Spy Hunter*? The one where you drove the spy car equipped with various weapons all around, evading and destroying the cars of evil spies while avoiding the cars of innocent civilians?

For you IIgs users who've always craved a GS version (or who'd just like to see a IIgs version for nostalgia's sake), programmer Shane Richards has created the freeware program *SpyHunter GS*.

*SpyHunter GS* requires at least 500K of free memory and a joystick (no keyboard or mouse mode, sorry). Unfortunately, it doesn't have automatic support for accelerators, so you'll need to turn your Zip GS or Transwarp GS off before playing it.

Although it's not exactly like the original *Spy Hunter*, it's sure pretty close. The graphics and sound won't blow you away with their quality (no more than the original program would have), but they are better than the original, and the game itself is just as fun to play. Sure it's a mindless, pointless arcade game. Aren't those the best type?

**Another Lost Classic?** Close - while GEnie, Tim Tobin, and the Lost Classics project were not involved, another Apple II commercial program has recently become public domain.

*METAL* is a highly sophisticated, compiled programming language for creating Apple II Bulletin Board Systems. *FutureVision* is a highly sophisticated Bulletin Board System written in Metal. *FutureVision* became public domain in January of this year, and Metal, the language it runs under, became public domain in late March, not long before we went to press.

If you've ever been interested in running your own BBS system, now is a great time to do it. There are several public domain and shareware BBS programs out there, but Metal/*FutureVision* is arguably one of the most powerful and sophisticated. *FutureVision* even has the FutureNet version, for networking with the Internet and with other *FutureVision* sites. All you need to start your own BBS is this extraordinary software, a modem, and a hard drive of some sort. It operates just fine on a 128K enhanced IIe, IIc, or IIgs (though it will access more memory on a IIgs than it will on a IIe or IIc).

Thanks go to Wilson Wares, who are moving on to other pastures, for releasing the Metal language to the public domain rather than letting it simply disappear from the face of the earth. Thanks to Joshua Thompson, author of *FutureVision*, for doing the same with his software.

All the software mentioned in this month's SFPD can be found in the software libraries on the major on-line services, such as GEnie, and on many local bulletin board systems. It can also probably be found at most public domain and shareware software houses, such as Big Red.

*SpyHunter GS*, *Raster Blaster ProDOS*, and *MODZap 0.81a* are featured on this month's **A2-Central-On-Disk**. Metal will probably be featured on next month's **A2-Central-On-Disk**. - DE



## Ask (or tell) Uncle DOS

### Printers for the people

In your April 1993 issue, Jim Gibson asked about using an inkjet printer with an Apple IIgs. I bought an IBM compatible system a few months ago because I use one at work. I am required to know how they work and how to repair them.

I've tried to buy equipment that both computers can share. So, I bought a DeskJet 500C. It has both a serial and a parallel port on it so that both computers can be hooked up at the same time. Using Vitesse's *Harmonie* driver, the IIgs works just fine with the 500C.

Since the 500C won't emulate an ImageWriter II, I decided to install a data transfer switch to select either my ImageWriter or the DeskJet. When I hooked it all up, nothing worked! After some trouble shooting, I found that the data transfer box flipped the wiring around in the serial cable. When the wiring was reversed, both printers worked fine.

The reason this happened is that the connectors on an Apple serial cable are mirror images of each other. The data transfer box is wired with a one-to-one correspondence between input and output. Rewiring the box so that its connectors were also mirror images of each other fixed this problem. I also had to do this with the data transfer box for my modem.

Since then, I've had no problems. You can use only GS/OS applications with *Harmonie*. If you want to print to a DeskJet using AppleWorks, then get John Link's *SuperPatch 8.0*. It works great. I had no problems with conflicts between *Harmonie*'s setup of the printer port and *SuperPatch*. The only drawback is that the DeskJet printer driver is so large, it's the only printer driver you can have. So, I now have two copies of AppleWorks on my hard drive, one for the DeskJet and another for the ImageWriter II.

As a final note, I've been trying to find ways to use my peripherals on both computers. Vitesse has just announced that they have a card that you can put in your IBM compatible to use with the Quickie scanner. I bought it and it works great! Now, I can use my Quickie on both machines.

Gerry Schultz  
Santa Monica, Calif.

Referring to Jim Gibson's letter on the options of using an inkjet printer with the Apple IIgs, I had read in *A+/InCider* about one reader's positive experience with a DeskJet 500 and

Harmonie but I went with the SyleWriter and the System 6.0 driver for the cost factor.

I use the StyleWriter for everything now and the only fault that I can find is that I cannot get the right border to line up like the left when I request full justification.

I use a ROM 01 machine with 1 meg additional RAM. I would dearly love to add 7 megs of RAM, 10mhz accelerator, RGB, CD-ROM, SCSI and a hard drive but lack of funds severely hinder the options.

Jon Spencer  
Humble, Texas

*Well, your wish list may make Santa cringe but memory really shouldn't be a problem these days with the 4-meg GS-RAM card from Sequential Systems costing only \$149.95. You might want to check the want ads in your local paper for used SCSI hard drives also. As more and more people are going with the really large storage devices, they're selling off their smaller ones at quite reasonable prices. Remember that the drives that work on the Macintosh will work on your Apple IIgs as well.*

### Help wanted

Do you or your readers know the printer codes to put the Kyocera (Laser) F-1010 into emulation mode for Epson FX-80 and HP LaserJet? I don't have a manual.

Bob O'Brien  
Dublin, Ireland

Readers?

### Unretired Apples

I use an Apple IIc with AppleWorks TimeOut and OmniPrint enhancements for most of my computer output along with *Print Shop* and *PublishIt* for special occasions.

With most of **A2-Central** articles aimed at the IIgs users, I did not seem to be getting much out of the publication and therefore had been considering not renewing. Perhaps future issues will be a bit more interesting to IIc users.

I am the president of our Apple SIG of our computer group here in Sun City West. I find that over a third of our members use either a IIc or its sister, the IIc Plus. A few articles on the care and feeding of these little machines would go a long way in establishing interest of a rather large group of users who presently feel somewhat left out.

With this being a retirement and wintering community, it is surprising how many of the "snow bird" owners have duplicate units both here and at their homes in the north country. A lot are relatively new users, having acquired their units from their kids when they upgraded to more powerful equipment. When locals upgrade, many of them pass their old equipment on to local school children who are just starting out and cannot afford a home unit. Perhaps Apples are forever.

R.F. Scott  
Sun City West, Ariz.

*Somehow, when Apple's marketing department came up with the Apple II Forever campaign, I doubt that handing down outgrown Apple's were what they had in mind, R.F. But*

*today, the idea really does fit! I'd love to feature more articles of interest to the 8-bit community. We welcome submissions from readers who are writers concerning any Apple II subject they feel would be of interest to our subscribers. We'll pay real money for articles that are accepted. -edr*

### If it ain't broke

I'm writing this letter in regard to Bill Robbins' letter in the March 1993 issue of **A2-Central**. In it, he mentions resetting the hertz. Well, after reading the letter, I went to my Apple IIgs, got into the Control Panel and started messing around with the hertz. Sure enough, the monitor started rolling with 50 hertz; I pressed 2 to get back to 60 hertz. When I rebooted the computer, however, it gave me the slippin' apple and the dreaded phrase "Fatal System Error—>0512," whatever that meant. I went back to the Control Panel, checked everything, tried changing things and rebooting, all to no avail. I even called you for help (thanks, Ellen) and finally got my computer back by reloading System 6.0 from the floppies. Then I went back and read the part of the letter where Bill says, "If it works, don't fix it." Yeah.

The moral to this story for all the other non-programming computer users out there is to make sure an adult is present when you play programmer.

Tom Wilson  
Chino Hills, Calif.

### Get my point

I am relatively new to your publication, coming to you from Nibble. Being more of a user than a programmer, I have found **A2-Central** much more enjoyable.

I'm hoping you could help to answer a few problems I'm having with my Apple IIgs. I have 4 megs of memory on a CVTech piggyback card (the Apple Expansion card is not installed at this time), a Zip 10/64 accelerator, Apple 3.5 drive, AE 3.5 HD drive, Apple 5.25 drive, and a Quality Computer 100 meg harddrive. I'm using System 6 and *Pointless*.

On startup, a second 5.25 drive icon appears on the desktop although I have only one. Sometimes this icon disappears after running a program and the Finder screen returns to the Desktop.

In your October issue on page 8.70, you state that AppleWorks GS 1.1 allows you to hit the OPTION-SHIFT combination while in the Choose Font sub-menu to obtain fonts larger than 48 points. I have tried this and always get the same error message; that the font size was too large and it was reduced to 48 points even though a size as large as 72 point was available.

I have had some serious problems that caused several programs to crash, which led me to check my memory cards. Using AppleWorks GS memory checker while it was configured for 5 megs, I got a bad memory at \$20000. I then tested the Apple memory card and the CVTech memory card separately and they both checked okay.

Any help you can give me with these problems would be greatly appreciated. Keep up the good work and hang in there with those of us who love the IIGs. I'm sure that I'll be renewing my subscription.

Jimmy Lisle  
Roanoke, Va.

In order to access the larger point sizes using **Pointless** and AppleWorks GS, you need to hold down the **OPTION-SHIFT** combination as you're selecting the **Font Choose-> Font submenu** item. **Then let go.** You can then type in a large font size and it will be accepted.

I've heard that the 10 mhz Zip can be unreliable in some cases. Perhaps it has something to do with your crashes. I know how easy it is to get used to a fast machine, but you might try taking it out for a while to see if your problems disappear.

If you have a ROM 1 IIGs, the problem may be in your CVTech card. Contract them for a PROM upgrade. If your 5.25 drive is connected to a controller card in slot 6, that will account for the extra icon. An adapter to connect it to the SmartPort daisy chain should solve that.

## Keep the old

I have an Apple IIGs with a hard drive and I would like to use it for storing and accessing my large library of DOS 3.3 programs. The drive is already formatted for ProDOS.

Is there a utility to enable using one or more partitions for DOS 3.3? I noticed that the December 1992 issue of **A2-Central-On-Disk** included a program called DOS 3.3 IIGs. Would this program serve my purpose? If so, would it be possible to procure this utility program from you?

Sam Cipolla  
Omaha, Neb.

You're in luck, Sam. The **DOS 3.3 Launcher** on November's **A2-Central-on-disk** is just the thing you need. Well, almost. Even better is version 2.0 on the April disk. This shareware program by John MacLean of Australia allows you to copy DOS 3.3 programs to a ProDOS disk and then launch them. It will even quit the program when you're done and return you back to your favorite launcher. Incredible. This new version has numerous enhancements over the previous versions and also can be used with 8-bit Apples! The modest \$10.00 shareware fee is well worth it. A very complete documentation file is included.

**DOS 3.3 Launcher** version 2.0 can be found on most major online services or on the April 1993 **A2-Central-On-Disk**. Back issues are available singly for \$10.00 or in quarterly sets for \$18.00.

## Apple Writer tips

I've enjoyed reading your articles on *Apple Writer*, which my wife and I have been using for many years in preference to *AppleWorks* for word processing. The Word Processing Language is especially useful for setting up automatic routines that can subsequently be implemented quickly and mindlessly. An example is formatting text for telecommunication. This takes advantage of the "PD8" option that results in printing to a file. It is a carryover from the Pascal version of the program, which was not documented for the ProDOS version, although it still exists. We are especially looking forward to the patches that you promised; particularly the one that allows use of extended memory.

You might be interested in a few oddities in the *Apple Writer* program that have escaped general notice. One is that the option to "peek" at one file while editing another only works if the underline token is left at the default of "\." Another is that when *Apple Writer* prints to a file and overwrites an existing file of the same name, it uses some kind of end-of-file indicator that is not generally recognized. If the new file is shorter than the old, and you access it later with some other program (say *Point-to-Point*), you will find the remains of the old file tacked to the end of the new one. This can be avoided by explicitly deleting the old file before saving a new one. And finally, after repeated savings of a file under the same name, we often get a Disk Full message even when working with an enormous hard disk. The only way out is to save under a new name.

Evan Appelman  
Downers Grove, Ill.

## Last time in A2-Central-on-disk:

Directory: /A2.ON.DISK.9304/

| Filename         | Blocks | Description |
|------------------|--------|-------------|
| Intro.Apr.93     | 23     |             |
| V9.N03.Apr.93    | 106    |             |
| General.Stuff    | 1      |             |
| .AccuDemo.Fixed  | 291    |             |
| .DOS3.3Launcher2 | 80     |             |
| .GndTrkCompanion | 84     |             |
| .GroundTrack3.01 | 174    |             |
| .Gtrk.TLE.Mar.93 | 98     |             |
| IIGs.Stuff       | 1      |             |
| .Bouncin.Ferno2  | 342    |             |
| .GLamp.A2Pro.No2 | 104    |             |
| .ShowMeNDA.1.0b3 | 117    |             |
| .TheManager.Demo | 172    |             |

## Last time in Studio City

Directory:/Studio.City.20/

| Filename        | Blocks | Description                           |
|-----------------|--------|---------------------------------------|
| Home.Stack      | 182    |                                       |
| HS.Sys16        | 163    |                                       |
| Halogens        | 1      |                                       |
| .Halogens.Main  | 275    |                                       |
| .Halogens.Open  | 157    |                                       |
| .Studio.City.08 | 8      |                                       |
| ExploringSS     | 1      |                                       |
| .EX.SS.Eggs     | 95     |                                       |
| .AppleRead.NBA  | 1      |                                       |
| Hyper.Art       | 1      | Hand tools, people, ribbons           |
| Hyper.Sounds    | 1      | dripx6, pageturn, printx5, scissorsx4 |
| Clipsters       | 1      |                                       |
| .Clipsters      | 63     |                                       |
| Current.Events  | 1      |                                       |
| .Current.Events | 249    |                                       |
| Metamorph       | 1      |                                       |
| .Metamorph.93   | 370    |                                       |
| ThreeD.Studio   | 1      |                                       |
| .ThreeD.Studio  | 168    |                                       |
| .ThreeD.demo    | 98     |                                       |

# A2-Central™

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