ALLADIN'S MAGIC

BY CHRIS ALLAIN

VIDEOGRAPHY HANDS ON REVIEW

The Alladin Media Printer is another in the crowded field of multipurpose, edit-suite-in-a-box, devices. The Alladin, however, achieves a quality level that sets it apart from its competition. The Alladin distinguishes itself from other offerings primarily through the image quality and features that its Digital Video Effects section provides.

The Switcher

The switcher uses full 4:2:2:4 internal digital processing to provide a four-bus, four-input system with two linear keyers. The Windows interface includes preview and program buses as well as two "layer" buses allowing control of the keyers. You can display stills with the two internal frame buffers and use them as additional sources.

The system provides only one external key input, but you can use the other keyer simultaneously with an internal key signal supplied by one of the frame buffers. Both keyers can use the external key input or key cut, and both of the frame buffers accommodate an eight-bit or linear key signal along with a 24-bit image.

The ability to input and use an eight-bit linear key signal in digital video effects is one of the outstanding features of the Alladin. Ampex pioneered this feature—often described by traditional DVE (digital video effects) system manufacturers as a flying key—with the ADO. Once, with higher-end units, a flying key option alone could have cost about the same as the entire Alladin system.

The Frame Buffers

The Alladin's frame buffers are noteworthy. These high-quality display devices operate at the CCIR 601 resolution of 720 by 486. Even using the composite version of the Alladin, these frame buffers output strikingly clean images. This has proved important in our operation (Vidox Image & Data) because we have linked our Pentium machine to our Macintosh Ethernet network, and pass files in digital form back and forth between the Alladin and the Mac workstations. We use the Mac systems to create and manipulate a large percentage of our video imagery.

We are now able to send an image, with its key channel, digitally to the Alladin from a Mac. We can then open and display that image, or manipulate it with flying key in the DVE. This is a feature we have long considered essential but could not get in any but the most expensive

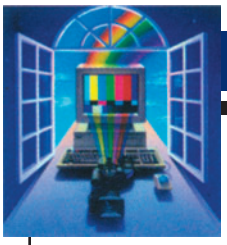
PINNACLE ALLADIN

MANUFACTURER: Pinnacle Systems, Inc.

SUMMARY: Alladin incorporates a full 3-D DVE, a digital switcher with luminance and chroma-keying, a paint and character generation package, and CrystalGraphics Topas 3-D modeling and animation software.

PRICE: (excluding recommended 486DX computer) $9,990 for Y/C composite version; $11,480 for component version.

INFORMATION: For more information, circle number 39 on the Free Literature Card in this issue.



traditional DVE systems.

To illustrate the importance of this feature imagine a production session where a client gives you a logo in Adobe Illustrator format on a Mac floppy disk. You convert it to an attractive bit-mapped image on your Mac, and are ready to key it over a closing screen in the client's spot. You could send the image out over a high quality display device, such as the Video Explorer with key channel, and using a linear keyer bring it in over the closing screen. This would look fine if you used a quality keyer, but you would have to size the logo perfectly in a Mac program, such as Photoshop, beforehand. Any change to size or position could require several minutes in Photoshop.

On the other hand, once it's in the Alladin's frame buffer you can enlarge or reduce the image and position it anywhere on the screen almost instantly. You then also have the option of flying the logo in using the DVE. We are using this feature frequently. Also, remember that there are two frame buffers, so you can have the other buffer loaded with an image—such as a text screen—that uses the linear key channel, and key both over a live source.

Any live key source, such as a character generator or a digital disk recorder with a key channel, can also feed the external key input. You can key this signal over other sources or feed it into the DVE for manipulation.

The DVE

The Alladin's DVE section, as mentioned, is the unit's crown jewel. This shouldn't be surprising since Pinnacle has founded its success primarily on digital effects devices. It's also interesting that Pinnacle has for years built multipurpose systems. In

THE TROUBLE WITH PC's

I've written this piece as a sidebar because I didn't want it to reflect adversely on Pinnacle Systems. My troubles were with DOS, Windows, and PC compatibles, which— for simplicity—I'll just refer to as PCs. Since 1984 I've owned over 40 Mac computers; I currently own nine. My staff and I have a
great deal of Mac system savvy. We regularly do componen- level repairs for ourselves and our clients. I wanted to describe our qualifications because—although we are new to DOS—we are not computer novices.

Although I'd heard the anecdotes about the other platform, and had a few experiences of my own, I had never owned or setup a PC. I doubt if, in the limited space I have, I'll be able to communicate the frustration we experienced trying to setup a relatively simple PC configured to control the Alladin. I realize that much of our trouble was due to our newness to the platform, but I'm here to tell you that you PC guys put up with a lot of grief.

I'll start at the beginning. We were soon to receive an Alladin, a product we liked so much we were willing to get a PC to run it. I figured, What the heck, I'll try a PC. Perhaps we'd find software we could use. So I went to a local electronics store and bought the top machine they offered, a Packard Bell with a 60MHz Pentium processor. I wasn't going to fool around with a slow computer. I bought it on a Saturday, figuring that I'd use the weekend to setup the Alladin and begin learning to use it. Oh foolish me!

Pinnacle sent an Adaptec SCSI controller card with the Alladin to assure compatibility. Well, perhaps the card worked with the Alladin, but it didn't work with my PC. I called Packard Bell's toll-free tech-support line, and—after a lengthy wait—spoke with several polite support people who were unable to help. So I called Adaptec. Their recorded message went something like this: "Due to an excessive volume of calls, the wait for tech support is over 30 minutes. Please try your call again later. Click!" I got that same message about 20 times over the next several days. I tried what I could for the remainder of the weekend, but my PC never acknowledged that the Adaptec card was installed. On Monday we called Pinnacle. They were courteous, but couldn't suggest anything that would make the PC recognize the card.

On Tuesday a friend who had a fair amount of PC experience came by, and he worked with us for a couple of hours. We determined that we had an IRQ conflict, so we move a couple of jumpers, and eventually had the PC recognizing the board and the Alladin. Why didn't any of the tech-support people we spoke with suggest an IRQ conflict?

Now, for the first time, we were able to get the Alladin interface to run. There was, alas, a problem. Although I was careful to buy a PC that would support 16-bit color on a super VGA monitor, we were unable to get it to run in that mode. So, we were back to the tech-support lines. After a bit of communal head-scratching we determined that we needed an additional video driver. The only problem was that a driver to support 16-bit video on this new machine wouldn't be available for a few weeks.

We decided to return this PC and order another system already configured with SCSI and currently supporting 24-bit video. I did my homework. I found out as much about the hardware as I could, and ordered a well-equipped generic clone with a SCSI interface, and an ATI Mach64 video card. When my overnight bundle arrived, we connected the cables and fired it up. After a few minutes the machine began to act weird, so we called the clone maker's tech-support. The following day we got a

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fact, one could make the case that, among traditional video equipment suppliers, Pinnacle has pioneered open-architecture systems.

Two characteristics of the Alladin's DVE make it a standout: the image quality and the range of effects. DVE vendors, when highlighting the quality of their system, like to talk about the caliber of the filtering they use. Higher quality filtering results in fewer visual artifacts. This system must have first-rate filtering because it's difficult to find flaws in processed images. It also uses good encoding and decoding circuitry; an image processed by the unit shows very little degradation even using composite I/O.

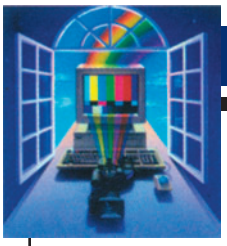
Several impressive capabilities highlight Alladin's the other standout trait—its range of effects. These include page turns with live video on both sides, curvilinear effects such as pound ripples and flag waves, variable light sources on curvilinear moves, smooth motion, and the previously mentioned flying-key channel. Before the Alladin was available, only-high end systems costing between three and ten times as much could produce effects of this quality.

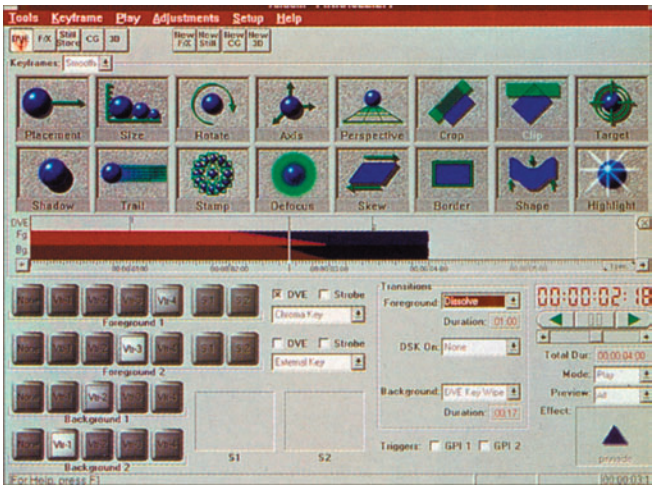
Although several multipurpose systems include a DVE, most don't offer 3-D and curvilinear effects, and no system anywhere near this price range offers this quality level. Effects created with the Alladin simply look like effects from a high-end system.

The Interface

A Windows interface provides control over the Alladin. As a Mac aficionado, I find the Windows environment course and less than intuitive, but the Alladin interface software itself is respectable. Pinnacle has created a pleasant interface for the main control screen. I'd prefer to work with the Mac OS, but I believe most users will easily learn to operate the Alladin. Mastery should come sooner than with traditional devices that provide similar capabilities.

An operator controls the sequencing of events using a straightforward timeline. You add keyframes by simply selecting a point on the timeline beyond zero, and editing any parameter of an effect. Editing a parameter will always create a keyframe unless one already exists at that point. The timeline allows sequencing of up to 20 seconds' worth of events, with keyframes definable at the





Alladin's main control screen interface.

field level. Although the latest version of the software allows you to delete individual parameter changes associated with a keyframe, there is no way to find out which parameters you've altered. I'd like to see some refinements in the viewing and editing of effect parameters associated with keyframes.

My first reaction to the 20-second length of the timeline was that it would limit us, but I must admit it has not presented a problem yet. I would, however, like to see the timeline lengthened.

Apart from these complaints, the overall interface and timeline are pleasing to work with and allow robust control of the system's capability.

Installation

Connecting the Alladin mainframe into the suite was a breeze. The connectors on the back of the composite version are about what you would expect from a small, four -input switcher. Unfortunately the inputs lack video loop-through. It does not provide an audio mixer as do some other, similar devices—a good decision in my opinion. Why should a manufacturer waste design and manufacturing resources on a limited audio mixer, when most users prefer a configuration with a traditional, external audio mixer? In additional to providing more channels and capability, conventional mixers generally have a more pleasing interface and—in an edit bay—are relatively low ticket items.

To setup the system, you connect the video and key inputs and outputs, and the reference video. If you wish to automate operation of the Alladin from an edit controller, you have a choice of three types of control: GPI, Serial, or VTR emulation.

The video inputs on a standard Alladin can be either composite or S-Video. The four inputs and the one output each have both connectors. The unit can also be purchased in a component version for a minimal increase in cost. The external key input is, of course, composite. The system also provides an output that is switchable between Preview and KEY OUT. The theory is, I suppose, that if you're using an external switcher for keying you will not need the Alladin's switcher preview. This does not represent an unacceptable compromise, but it is a compromise nonetheless.

Other interconnections on the unit include the reference video in and out and the various data connections. These include the SCSI interface, the RS-422 interface, and the GPI interface. SCSI connects the Alladin to the Windows PC, and the RS-422 and GPI connections allow automated control from an edit controller.

Assembling the Alladin control system including a windows PC with SCSI card and software was a more taxing experience than I would have imagined. See the sidebar, titled "The Trouble with PCs" for a complete discussion.

The Software Bundle

Pinnacle assembled an impressive software collection to bundle with the Alladin, especially when you consider the value of the basic unit. They probably could have sold the system without this bundle but it certainly makes the package more attractive.

Besides the control software, the system includes: Alladin Paint from Pinnacle; Inscriber CG, from Image North; and Topas, from CrystalGraphics. Pinnacle's paint program provides a capable video-oriented Windows paint environment. Topas and Inscriber have long been among the leaders in their category on the Windows/DOS platform. Topas is used for 3-D modeling and animation, and Inscriber CG for titling. These programs have not yet seduced my company away from Photoshop and Electric Image Animation System on the Mac, but the bundle clearly includes serious software designed for professionals.

Alladin paint and Inscriber CG integrate well with the main interface software, since they are Windows applications. A user simply double-clicks on a file icon in the Alladin interface to launch the program that created it. The launch happens almost instantly on the Pentium machine we use. Topas, on the other hand, is a DOS application, and getting it to run has proved difficult. It seems that the device drivers we've installed have created a memory shortage on

our 32MB machine thanks to DOS' convoluted memory management. I'm sure if we were DOS heads this wouldn't be a problem. We can probably optimize memory and get it to run without constantly changing our config.sys file, but instead we've just given up.

The Strength of the System

Although the Alladin's switcher is as good as that of any similar system, it's not what I find appealing about the unit. If you use a conventional switcher, the Alladin's offering might seem somewhat limited and inconvenient. At the same time it is capable of some fairly complex effects. I particularly like the keyer section. I doubt though, if four video inputs would satisfy many post house users. Even with a routing switcher, feeding the inputs would be inconvenient. To be fair, Pinnacle didn't build the switcher section for that level of user. These capabilities might serve a small start-up company very well.

The bundled software is an excellent value if you currently use a Windows machine. If you are a dedicated Mac user, you may not make use of the software.

By this time you've probably deduced that I considered the strength of the system, for our purposes, to be its digital effects and frame buffers. We've now integrated the Alladin with our conventional production switcher and edit controller. It works reliably with the other components in the suite. We use the frame buffers heavily to display images for keying and simply to display stills. Although we yearn for a Macintosh front end, overall we're delighted with the Alladin Media Printer. It was sent to me for review, but I've paid to keep it. □

call back from the clone maker, who worked with us for a while and determined that half the BIOS were missing. We wondered aloud where they might have gone. He had no answer, but was sure they were gone, and that we'd need to send our PC back for a new one. About this time we decided to open thePC's case, and we discovered—amidst a rat's nest of poor design—that a cable had fallen into the fan atop the Pentium chip. When we moved the wire, allowing the fan to cool the Pentium, the system began to work properly again.

Okay! So now we had only to connect the Alladin to the SCSI-equipped PC, and we'd be off. Alas, another problem: the SCSI connectors were not the same. A day later, after calling a dozen sources, I figured out that—unlike the Mac—the PC used different connectors for SCSI I and II. I had purchased a SCSI II system and was trying to connect it to a SCSI I peripheral. No one seem to be able to tell me if this would work. After considerable effort we had identified the connectors and located an adapter. The company selling the adapter, of course, had no idea if it would work for what I was trying to do, but that seemed par for the course. Oh, and by the way, "That would be COD-cash or cashiers' check."

The next day, I shelled out $50 for my $30 part and headed for the suite. We connected the PC to the Alladin, using our new adapter. On startup we saw the name ALLADIN in the lines of DOS hieroglyphics that scrolled up the screen. Hooray! The PC was aware the Alladin existed.

Next we installed the Alladin software and launched it, but it was not to be. The software complained that the Alladin unit had to be connected for it to run. But it was connected, I pleaded; the PC saw it at start-up. We called Pinnacle.

The tech-support guy had told me earlier that they specified a particular Adaptec card, but that he had not had any complaints from users with other cards. He must have meant other Adaptec cards. It was then that we discovered that the Alladin not only required a SCSI card, but an Adaptec SCSI card. Our new PC was not so equipped, and we would not be able to install the Adaptec driver software required to communicate with the Alladin.

There was only one solution. We'd have to install the original Adaptec card that had come with the Alladin. We cried "uncle" and called a local PC dealer so that he might explore the wonderful world of IRQs on our behalf and at our expense.

After nearly three weeks of daily struggle and hundreds of dollars of unexpected expenditures, our PC—equipped with two SCSI cards—finally communicated with the Alladin. Later we invested another couple of weeks trying to get Ethernet connected and running on the PC before we broke down and called the technician again.

Before the PC users among you—probably livid by this point—write to tell me that I am incompetent, let me be the first to admit it. I'm not qualified to do system configuration on a PC. If I had it to do over, I'd call a technician and pay whatever ransom he asked. Better still I'd pay Pinnacle to configure the system for me. They do provide this service. That would be my recommendation to the PC novices who plan to buy an Alladin.

I'll close with a few partisan thoughts. It is no exaggeration to say that rarely a day goes by when we do not move a hard drive, CD-ROM, video card, or memory from one Mac to another. This would be unthinkable on a PC. In the ten years I've used Macintosh computers I have never called Apple for tech support—not once!

If Pinnacle had designed the Alladin to run on a Mac I probably would have made the SCSI connection in a few minutes, the video drivers and Ethernet would have worked without effort, and I would not be exposing my inadequacies to you now.—Chris Allain