



# TOASTER

Over the past year Club Toaster members have received over 170 Backdrops, 120 Textures, 36 Full Motion Backgrounds, 120 wipes, 17 full resolution animations, 80 sound effects, 60 fully textured Lightwave objects, 2 full length royalty free music scores, and over 100 24-bit brushes. No other Toaster CD collection comes close to Club Toaster.

For Club Toaster Year 2 we have expanded our categories and gathered some of the best content you can find anywhere, at any price. But as always, Club Toaster is only \$9.95 per month.

FOR INFORMATION CIRCLE 108

# What is Club Toaster?

Club Toaster is a monthly CD-ROM filled with professional royalty-free Toaster content. Each month you'll find hundreds of megabytes of textures, color wipes, moving backgrounds, animations, fonts, and a whole lot more. Take your video productions to a new level with Club Toaster.



**ANIMATIONS** 

# Moving Backgrounds

# **What's New in Year Two?**

This year along with major interface changes Club Toaster now includes COLOR FONTS, FULL LENGTH MUSIC, ONLINE HELP, and new FLY EFFECTS rendered effects.

**MOTION BACKS** 

# Can I use Club Toaster with a FLYER?

Along with Toaster content Club Toaster is packed with Flyer content including Flyer Stills, Moving Backgrounds, Animations, Music, and FLY EFFECTS. Each is in HQ-5 Flyer Clip , PAR, and Studio-16 formats and ready-to-go in your next production.



WIDES

BACKGROUNDS



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#### **John Gross**

Top animator for Star Trek Voyager, Sliders, seaQuest DSV and founding editor of LightWave Promagazine.



# **Ron Thornton**

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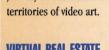
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by Sam Kanter

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by Mike McBride Learn how to use the Toaster, Flyer and LightWave 3D to show homebuyers virtual properties and home improvements.



by Ginger Costa Chabot College in Hayward, Calif., has used the Video Toaster with their video bulletin board to boost enrollment. Learn how they did it.



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Cover Design by FryeAllen, Incorporated

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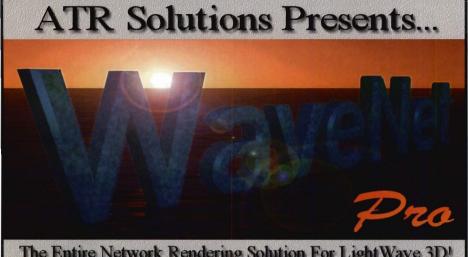


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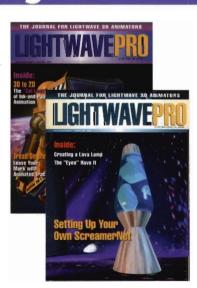
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QUESTIONS AND TIPS Direct your Tooster-specific questions or tips to VTU

NEW PRODUCTS & UPDATES Direct your press releases and new product lifterature ta New Products Editor.

WRITER'S GUIDELINES Write to Video Tooster User, Attn: Writer's Guidelines.

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# TOASTER TALK

# **Wish Upon A Star**

**Make Your Dreams A Reality** 



by Joe Tracy



n September 14, 1964, President Johnson presented a distinguished gentleman with the Medal of Freedom, the nation's highest civilian honor. This man grew up on a farm and had teachers who complained that his attention was always wandering. Like many other boys, he also had a newspaper route. But while all the newspaper boys were riding bikes and throwing papers at houses, he

would walk to each delivery stop and neatly place each newspaper at the front door. As this boy grew, his vision for a better world also grew. Most remarkable about him was that in the midst of criticism, he would press on towards his dreams. He never knew what *this can't be done* meant, and the Medal of Freedom he received at the White House, late in his life, was proof. Who was this remarkable individual? Walt Disney.

My admiration for Walt Disney and his achievements was what attracted me to NewTek in the early 1990s when I bought my first Video Toaster card and an Amiga 2000 computer to go with it. This was a team of people with a vision. This was a team that believed that they could change the video world with the introduction of a user friendly and affordable system that would meet all the needs of the video producer. They did.

# In The Beginning

When I purchased Video Toaster 1.0, I was at Pacific Union College in California's Napa Valley. I attended PUC because of its excellent communications department. When I received my Toaster, I wrote a movie script, *Gunpoint Decision*, and brought together a crew and cast of over 100 students to produce the film. We used the Toaster for the movie's titling and special effects. Everyone was impressed. Soon I was asked to demonstrate the system for one of PUC's video courses. Then the video yearbook editor wanted to use it for the video yearbook. Suddenly, interest in video productions at the school began booming. When I graduated from PUC with a degree in public relations and a personal emphasis in journalism and education, the school wasted no time in purchasing a Toaster system of its own!

After graduation, I was hired to teach video productions, advanced video, animation, photography, drama, and journalism at Milo Academy in Southern Oregon. Naturally, the central part of my video and animation instruction was the Toaster system. To get the most reliable information on the Toaster, I always turned to *Video Toaster User* magazine.

When the Amiga 4000 and Toaster 4000 hit the market, I immediately purchased one. This amazing advancement was again the central point of my instruction and also the production unit for the video production business that my wife and I were running. Every day I'd spend hours with my Toaster system, attempting to unlock its full potential, and I'd always come away thoroughly amazed.

#### Fair Game

In late summer, 1994, I took out a booth at the local Douglas County fair. Using the Toaster system, I had created a "star in your own movie" opportunity (see this month's "Flyer Suite" column) that amazed everyone. The concept and our demo tape suddenly landed us radio interviews and a large article in the local paper. A national company from Los Angeles, which tours fairs across the U.S., was so impressed that they wasted no time in sending us footage to edit together for a national infomercial. The quality of our product and amazing power of the Amiga and Toaster created such an astronomical response that I was forced to make a decision between continuing to teach or going into TV and video productions full-time. The Flyer, which I had just purchased, made the decision easy. I chose the latter.

My love for writing and publishing started when I was young. At age 10, I started a *Neighborhood News Flash* newspaper produced on a typewriter once a month, and delivered to neighbors who subscribed to it. I was editor of my high school newspaper, news editor of PUC's newspaper, and throughout college produced a small magazine of encouragement and opportunity that went out to over 1,000 high school students.

Now, hundreds of articles, publications, seminars, TV commercials and Flyer editing hours later, I find myself in a position to make even a bigger contribution. It is a position that I do not take lightly. I am very honored to be serving you as the new Editor in Chief of *Video Toaster User* magazine. I am dedicated to serving you and continuing the strong tradition of *Video Toaster User* in providing you with the information, education, and opportunities you have come to expect.

Like the rest of the *VTU* staff, I am committed to the vision and most importantly to you. Because I deeply respect your ideas, opinions, and comments regarding *VTU*, I am providing you with my personal e-mail address and phone number so that you can reach me anytime. My e-mail is jtracy@main.rosenet.net and my phone number is 541-673-4342. If there is a Toaster and/or LightWave3D related subject you want to see or suggestions you have regarding *VTU*, please don't hesitate to e-mail or call. I wish you much success and I am rooting for you as you use the Toaster, Flyer, and LightWave 3D to make your dreams a reality.



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# NEW PRODUCTS

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Product: GR-DV1

Description: Digital Mini CamCorder

41 Slater Drive

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Phone: (800) 252-5722

Fax: (201) 523-3601

The GR-DV1 marks the debut of IVC's new Digital CyberCam series. Tailored for multimedia applications, the CyberCam provides up to 60 minutes of recording and playback. The Mini DV cassette—only slightly larger than a matchbox—has allowed the complete reclesign of the video camera. The CyberCam itself is similar to the size and weight of a 35 mm camera. (1-11/16" X 5-13/16" X 3-1/2" weighing one pound.)

It's downsized lens with optical 10X zoom weighs just over one ounce and is less than two inches long. Low voltage operation reduces power consumption allowing the use of a 1,250 mAh lithium-

ion battery only slightly larger than a AA battery.

CyberCam's digital format provides a number of unique features, including: 100X digital zoom; a digital image stabilizer that eliminates camera shake without affecting picture quality; a Snapshot mode which freezes the image with a white border; and even a Motor Drive mode



that allows shooting "snapshots" in rapid succession.

Special effects include Slow Shutter, Echo and Sepia modes, 18 scene transitions. Wind Cut Filter for improved audio recording and Squeeze Mode for adapting widescreen televisions.

FOR INFORMATION CIRCLE 1

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Product: Color VHS Labels Description: Custom printed labels for your videotapes Price: First 100 for 149.95. Additional 100 for 49.95 at time of order.

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Maverick Color Labels supplies fast-turnaround short run labels to special interest video producers with limited budgets. Maverick's four-color, fullbleed, face-and-spine labels help to market your video. Producers can choose a label design from one of

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FOR INFORMATION CIRCLE 2

# **Hi8 Auto Editing**

Product: ES3000 Description: Hi8 Camcorder

Price: \$1,399 Canon U.S.A. Inc. One Canon Plaza

Lake Success, NY 11042

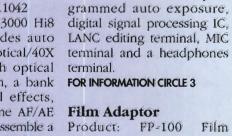
The Canon ES3000 Hi8 camcorder includes auto editing, a 20X optical/40X digital zoom with optical image stabilization, a bank of digital special effects, advanced FlexiZone AF/AF and the ability to assemble a personal multi-media device with the optional FP-100 Film Adapter.



Other features include cus-

tom keys, color viewfinder

and Hi-Fi stereo, pro-



Film Adaptor Product: FP-100 Film

Adaptor Price: \$199

Description: Optional Adaptor for Canon ES3000





Canon U.S.A. Inc. One Canon Plaza Lake Success, NY 11042

The Negative/Positive conversion effect was incorporated to work specifically with Canon's optional FP-100 Film Adapter. Photo enthusiasts can now transfer their collection of film images to video. The Negative/Positive conversion effect transforms negative images to positive images for a wide array of uses. The FP-100 will also accept 35 mm slides.

FOR INFORMATION CIRCLE 4



# **Down to Business**

Product: Starting Your Own Animation

Business Video Price: \$59.95

Description: Training Video (2.5 hours)

Intelligent Light 1811 Water Oak Lewisville, TX 75067 Phone: (800) 764-8696 FAX: (805) 726-3544

Do you have 3D software, but no idea where to begin making a profit with your tools and skills? The *Starting Your Own Animation Business* video may be right for you. Over two and a half hours of instructional video include topics such as: How much to charge for your services, creating the perfect demo tape, how to stay debt free, successful marketing, avoiding traps, and much more

FOR INFORMATION CIRCLE 5

# LightWave 5.0-The Book

Product: Power FX: Addendum 5.0

Price: \$24.95

Description: LightWave 5.0 Instructional

Book

LIGHTSPEED

2763 West Avenue L

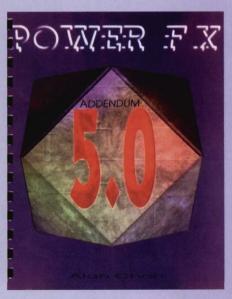
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Lancaster, CA 93536 Phone: (800) 764-8696

FAX: (805) 726-3544

Power FX: Addendum 5.0 by Alan Chan covers all the new LightWave 5.0 features including OpenGL, Meta-NURBs, MetaBalls, Metaform Plus, MetaMation and more. The book includes 200 illustrations. Try it for 30 days risk free.

FOR INFORMATION CIRCLE 6



**Dual Proc Amp** 

Product: The Studio 1 Dual Proc Amp

Price: \$679

Description: Patented video processor

Studio 1 Productions 1524 County Line Rd. York Springs, PA 17372 Phone: (717) 528-8374

Studio 1 Production's Dual Proc Amp includes a patented metering and video processing circuit. It supports both S-Video and Composite inputs and outputs alling the user to convert video signals from S-Video to Composite or from Composite to S-Video. All signal processing is done in Y/C mode allowing the user to adjust the chroma signal, without affecting the blacks, whites or neutral grays. The user is given complete control over the luminance black level, video gain, chroma saturation and hue.

The Proc Amp also has several switchable options, such as Split Screen, Mono, Unity, and Sync Restore.

The Proc Amp meets broadcast specifics and offers an S/N ratio greater than 60 dBs, with a 10 Mhz bandwidth at 800 lines resolution and adds no noise to the video signal. Studio 1 Productions also offers a Single Proc Amp with the same features.

FOR INFORMATION CIRCLE 7

# PRODUCT ANNOUNCEMENTS

VTU

Announce your new products in Video Toaster User.

Simply send a press release describing your product with a photo, or a Mac or PC disk with a JPEG or TIFF image to:

Video Toaster User attn: New Products Editor 1308 Orleans Dr. Sunnyvale, CA 94089

For more information, call (800) 322-2843.

# THE FLYER SUITE

# **Star in Your Own Movie**

A Money Idea for Flyer Owners



by Joe Tracy



he year is 2055.

The U.S.S. StarQuest is patrolling the galaxy when a distress call comes from Planet Saurus, beyond our Solar System: They're being attacked! The StarQuest commander checks his flight records and sees that you are the closest ship in that sector. He establishes contact and gives you the

order to check it out.

Scene Change: Planet Saurus. A large mother ship, from the Tigress Empire uncloaks and fires a huge blast towards the planet, then recloaks, disappearing from view. The blast hits the planet's atmospheric shield. It flickers and disappears, causing the planet to go into atmospheric and tectonic chaos, threatening the the only dinosaurs in existence.

StarQuest messages you to hurry. Going into semiwarp speed, you arrive at the planet. The StarQuest Commander determines that the crystal operating the shield was destroyed. He teleports a new crystal to you and gives you orders you to

beam down to the planet and replace it.

Meanwhile, the dinosaurs are going crazy and the planet begins changing colors. You quickly beam down to the temple and replace the crystal. You now have 30 seconds to teleport back to your ship before the shield is up again. You barely make it! As you reach your ship, a new atmospheric shield surrounds the planet, brighter than

ever. But before you can celebrate, the Tigress Mother Ship suddenly uncloaks and points its guns at you! It fires! Quickly you thrust your ship forward as the blast barely misses your ship, bouncing off the newly energized shield. It returns to the Tigress Mother Ship, destroying it. Not only have you saved the planet, you've destroyed the enemy!

"With just the Toaster, we had to

have the entire movie already on

the tape, inserting the star's scenes

at the appropriate positions. With the

Flyer, however, you don't have to

do that! You can easily create the

clip and move it exactly where it

needs to go in the movie!"

# **Back To Earth**

Is this scenario a quick plot for a new sci-fi adventure? Not quite. It was, however, a script that I wrote in 1994, three months before our local fair. My goal was to film all the scenes, except those involving the captain, create Light-Wave 3D animations to go with it, and edit it down into a 10 minute movie. All of the prefilmed parts were edited into the movie except for the captain's scenes. Those parts would be inserted at the fair to those who would pay \$18.95 to star in their own movie! I set up my Video Toaster system at the fair to provide the transporting effects and the titling including the star's name in the opening and closing credits!

I made 300 copies of the finished movie,

with black spaces where the captain's parts were to occur. I also used dramatic music in the background that continued from the previously recorded scene. This helped with continuity.

# Set the Scene

To add to the marketing value of the whole event, we set up director chairs, a movie clap

board, cue cards, a space ship (no, we didn't borrow the one from Area51) and a temple scene in the fair booth. Those manning the booth dressed in fancy StarQuest uniforms. We also created a dra-

matic movie trailer and played it continuously to the thousands of "The 'star in your own fairgoers. Everything was great! We did run into one big problem, **movie' idea doesn't have** however: Every time a participant paid to be largest crowds in the to be used just at a fair. a star, we attracted the building, blocking off access to the other booths!

With just the Toaster, we had to have the entire movie already just for the fun of it or on the tape, inserting the star's scenes at the appropriate positions. for a school party. You With the Flyer, however, you don't have to do that! You can easily create the clip and move it exactly where it needs to go in the movie! When the clips are all inserted, press play, record it, and have monitors hooked **demonstrate the power** up to your booth so that everyone can see the finished product! While the movie is playing, begin coaching the next person waiting to be a star!

you may actually sell it.

You may want to do it

may want to use the

idea to help

of the Flyer to

friends or clients."

As a general rule, each page of properly formatted screenplay equals one minute of movie time. Your finished script should be 10 to 12 pages. The scenes you write

> for the "star" should always show him acting alone, unless you are prepared to pay your actors to show up at the fair! The "star" should have five to eight short but very fun and entertaining scenes. The teleportation scene always drew a big reaction.

> 2) Assemble a cast for the pre**shot scenes**— Make sure that they are good actors and that each one signs a proper contract.

> 3) Shoot the **scenes**— If possible, record the scenes directly to your Flyer hard drives for the best possible quality. Make sure your sets and set designs are of the highest quality too. If the acting is dull and the sets and costumes are just thrown together, then no one will want to participate.

4) Edit the video-

This is the fun part, because the Flyer gives you a lot of power to experiment until everything is perfect! You can even mix some of vour action with animation (see next month's column)! The more time you put into perfecting the final product, the better it will be. Be sure to use dramatic buyout music in the movie to help with continuity and to enhance the

5) Black background- Place one in any scene that will include your "star" and assign it the approximate length of that scene. Be sure to keep the lines for your "star" short as many people have problems remembering long lines, even on cue cards!

ular action scenes without lines, was in an animation where the captain's ship is hit by a blast from the Tigress Mother Ship. As soon as the blast hits the ship, we cut to the inside and had the "star" throw himself back and forth. At the same time, we shook the camera to symbolize a blast hit. The audience loved this scene, especially because everyone did it differently and had funny expressions!

6) Practice- Before working with paying customers, try it out on friends. Create an elaborate set design for the "star" that matches your script.

Be sure that your set will fit within the dimensions of your fair booth. Now have different people try it over and over. Edit it together and see how fast you can get it down. Be sure to insert names into the opening credits! Play it back and get their reactions. Work on your timing, music, sound quality and set design to perfect the process.

7) Be prepared- Purchase a number of 15-minute video cassettes and be sure to create nice labels for each one. Decide on a marketing strategy. We did a radio commercial in the form of a movie trailer. It was interesting to hear people coming to or passing the booth saying, "this is that Star-Quest booth we heard about on the radio!"

Make sure your Flyer system is working at your booth before the opening. Be sure to record the star's scenes directly to your hard drive for better quality and to eliminate recording again from tape to your hard drives. Have brochures and press packets available.

# **More Tips**

The "star in your own movie" idea doesn't have to be used just at a fair. You may want to do it just for the fun of it or for a school party. You may want to use the idea to help demonstrate the power of the Flyer to friends or clients. Here are a few tips, on how I created certain scenes, that you can experiment with:

•To make an object cloak or uncloak in a LightWave 3D animation, use the Object Dissolve envelope that appears on the Object

# Lights, Camera, Action!

Here's the way to go about creating a "star in your own movie" program to use with your Video Toaster Flyer system:

1) Create the story– The script is the most important aspect of the entire project. If your story is weak, then the response will be weak in return. If writing is not your strength, find someone else to write it for you. If you want to attempt it, then purchase some copies of actual screenplays and review them carefully. Then buy some screenwriting books and study each one as you begin to envision your final product. While you're at it, write an actual 120page screenplay on the side and submit it to agents. Who knows,

An example of one of our pop-

# DR. TOASTER

# **Toaster 4.1 Rx**

That's Lack of RAM—Not Rack of Lamb



by Dan Ablan



t's finally happening. Toaster 4.1 is hitting the streets. Although it's been out for a few months, Toaster owners of previous versions have been slowly upgrading to NewTek's latest release. Once the word got out about just how great it is to sequence Framestores, rotate text in CG, or type text in ToasterPaint, the upgrade price quickly became very reasonable. As it turns out,

many Amiga owners who at one time were ready to sell off their machines are now realizing just how valuable it still is. This month's first question comes from the electronic world.

I am e-mailing you from Charlottetown, Prince Edward Island, Canada, where support for the Toaster is nil! I have an Amiga 2000 with 1 MB Chip RAM and 6 MBs Fast RAM. I also have a Fusion '040 accelerator. My problem is that the Toaster software hangs or stops and I have to reboot again. Some have suggested reinstalling the software. I've done that, but the problem doesn't go away. Do I need more RAM, Amiga Dos 2.1, or do I need Amiga Dos 3.1? Any suggestions or comments would be greatly appreciated.

Trevor Mac Innis

A: Hi Trevor,

Glad to see you are still using your Amiga! I'm even more glad to see that you still want to invest in it.

I'd suggest installing the

MegaChip which will bring

your Chip RAM from 1 MB

to 2 MBs. This is a strong This is a strong recommen-

ToasterPaint work."

Sinking money into computers that are a few years "If you can find one, old is sometimes questionable no matter what platform you're working on. As for your system, your problem is most likely due to your RAM-well, lack of RAM that is (no, not rack of lamb, lack of RAM). If you can find one, I'd suggest installing the MegaChip which will bring your Chip RAM from 1 MB to 2 MBs. dation for ToasterPaint work. Next, you need to at **recommendation for** least double your 6 MBs to 12, but 16, 18 or more is always better. More RAM will not only solve your problem, but allow you to

keep ToasterPaint open while jumping into LightWave 3D to create a cool 3D logo. It's not necessary to upgrade the operating system to 3.1. 2.1 works just fine. Some users have had problems with Amiga Dos 3.1 and existing software. Check with a local dealer, or refer to one in the back of VTU for RAM info and compatibility. Good Luck!

Dear Dan, I have an Amiga 2000 plus a GVP '040 accelerator using Amiga DOS 2.x (WorkBench 38.36) and I just got a JAZ drive. PC-formatted disks show up as "CD0:NDOS" and won't open up (the error message, "the icons have no default tool," shows up). Can you point me in the right direction on how to make the JAZ drive work with the Amiga? Also, have you ever tried using CrossMac with the Amiga so it can read and write Mac formatted hard drives? I seem to get error -45 when trying to use that program. Thanks for you help! Peter Laubach

This question comes up quite a bit these days, and we've even mentioned it in previous Dr. Toaster columns. The JAZ drive from Iomega, makers of Bernoulli and ZIP drives, can be used with your Amiga without much effort. Amiga Dos 2.1 has a built in feature called CrossDos. This allows the user to read and write PC disks on the Amiga. However, the purchased version of CrossDos, or CrossPC to some, has a program called Config\_Disk. Run from the floppy disk, this program will look to all drives, internal and external, and ask how you would like the disk mounted, (i.e., PC DOS disk). As an example, my GVP controller sees my Iomega ZIP drive. The Config\_Disk program within CrossDos tells my Amiga 2500 to mount the ZIP as a PC DOS. The ZIP is then linked to a switch box with the other connection going to a WindowsNT system. Check with your local dealer, or one from the back of VTU to find CrossDos.

As for CrossMac with the Amiga, it's tricky. I've used CrossMac, but had some trouble with file conventions, extensions, and the like. What I ended up doing was keeping everything in a PC DOS format. Most Macs will read a PC disk. The Amiga will, and of course a PC does. So the easiest way to use either external devices or floppies is to format them as DOS, and you'll always be able to access the disk from any system.

Dr. Toaster, I am using a Toaster 4000 for on-line graphics (using the Toaster as a CG and Framestore through an external switcher) and 3D animation, and a Mac-based non-linear system for editing. I also learned that I can use the Mac to play back animations rendered at higher resolutions than the Toaster switcher can handle—provided I have the time to transfer my IFF-format single frames to the Mac via floppy disks! I've been using Pegger to compress the Framestores before copying them to the floppy, but I know networking would be an easier, faster and all-around more elegant solution (and it would allow me to avoid that small loss form JPEG compression!). Could you give me an idea of what kind of solutions there might be out there for us? Michael Jones

Here's Life Television Shreveport, Louisiana

Hi Michael,

Your question has really already been answered. Using a DOS formatted disk, you can have both machines (Amiga and Mac) read the same disk. The problem with your situation is the amount of file transfers you need to do.

Let's say you can fit two frames compressed, onto one floppy. That's 150 transfers for a 10 second animations! Arrggh! Once I moved into the PC world for LightWave animation, I still needed to get my rendered frames over to my PAR which of course, was in my Amiga. I did this through a Bernoulli 230 formatted as a DOS disk. Rendered IFF files would be copied to the Bernoulli, then the unit was switched over to the Amiga, and then the frames were imported into the PAR. Although this took a bit of time, it was far less than the time it would have taken to render the same animation on the Amiga.

Shortly after, I used a ZIP drive for the same procedure as it was much faster, and now I render to a Perception Board within the PC. To make a long story short, use removable media. In your case, a JAZ drive would work out best. The JAZ drive uses 1 GB removable disks, and the unit ships with PC and Mac software. As mentioned, CrossDos will mount the unit on the Amiga. Keep up the good work, Michael!

That's going to wrap it up for this month. Be sure to email any questions directly to me at dma@mcs.net, or fax them to (312) 649-9392. Thanks for reading, and keep on Toastin? VYU

Dan Ablan is president of AGA Digital Studios in Chicago. Dan's company uses LightWave 3D and the Toaster for all kinds of graphics and animations. You can see Dan around the country on the VTU Toaster and LightWave training tour. Additionally, pick up the first commercially available book on LightWave 3D, The LightWave Power Guide, by Dan Ablan, at your local bookstore this September.

#### **EDITORIAL EVALUATION**

Circle number on Reader Service Card

I found this article: Very Useful

Circle 024

Useful Circle 025

Not Useful Circle 026

# Flyer Suite continued from page 11

Panel. At 100% the object will be invisible. At 0% the object will be fully solid. At 50% it will be half

transparent. To determine how long you want the fade to take place, keep in mind the simple rule for video: 30 frames equals one second. You can also use dramatic dissolve changes to create a flicker effect on the atmospheric shield.

•To create teleportation and human fading effects with the Flyer, first set your camera on a tripod and aim it in the direction where it will take

place. Make sure your talent is out of the picture, then record a few seconds. Now make it into a Flyer still. Move your talent into the picture without moving the camera, and record him. Now move your still to your project window. Go to the effect bank, select the dissolve folder, then select the Fade Grainy effect. Move the Fade Grainy effect to the project window just after the Flyer still. Set the dissolve speed to

"Having a Flyer with

Lightwave 3D gives

you the power to

interact video clips

with animation."

slow. Now put the clip with your talent after the Fade Grainy effect and press play. teleportation The should occur flawlessly. Experiment with different fading effects and see which one works best for you.

- Build a planet. The April, 1996 edition of LIGHTWAVEPRO has a good tutorial to show you how.
- Try creating blast effects by going to the Light Panel, adding another light, turning

the lens flare on. Then experiment with the Flare Dissolve and Flare Intensity envelopes in the Flare Options screen.

• If you don't know how to create fancy items in modeler, be creative and transform current available Flyer objects while you learn modeler. For

example, one of our scenes called for a quick laser blast that hits the captain's ship. We created the laser by taking the pencil object, changing all the surface colors to purple or green, giving it a 50% dissolve, and firing it at a high rate of speed. It worked great! Most importantly, don't be intimidated by Lightwave 3D. Just get in and experiment. You will learn quite a bit as you do.

Having a Flyer with Lightwave 3D gives you the power to interact video clips with animation. We'll look at how to create Independence Day-type scene in next month's column and take a simple look at placing a Flyer clip onto a Lightwave 3D object. I'll also share some more Flyer tips that you can use for everyday productivity.

*Ioe Tracy is editor in chief of Video* Toaster User and can be reached at itracy@main.rosenet.net.

#### **EDITORIAL EVALUATION**

Circle number on Reader Service Card I found this article:

Useful

Very Useful Circle 022 Not Useful

# **TOASTER POST**

# A Second Look

Is Toaster 4.1 Right For You?



by Burt Wilson



finally got a release version of the stand-alone Toaster 4.1 upgrade. A couple of months ago, I did a column on the beta version I was allowed to look over and a few of the things you'll read in this column are repeats—but they bear repeating.

## Don't Lose 3.1

First off, if you are doing post-production with a 3.1 version of the Toaster and you are planning to upgrade to 4.1, find—but don't throw away your 3.1!



With Toaster 4.1's new CG capabilities, multiple text boxes can be rotated and sheared and remain perfectly proportioned.

"If you are planning to

keep 3.1 in your system,

you must back it up and

take it completely out of

the system before you

Although the upgrade has a number of nifty new effects in it, it is missing some of the more usable effects found in 3.1—such as the flip back to Infinity and out again. You'll also find certain things easier to do in 3.1 than 4.1, such as creating and using a lower-third super. In 3.1 you create it, render it and use it. In 4.1, you create it, save it as a page, exit through much screen flashing and flipping to install 4.1." the switcher, go to the project files, call up the page, insert it in the project and use it. Give me 3.1 any day!

Also, let me warn you right now-and this is a repeat—if you are planning to keep 3.1 in your system, you must back it up and take it completely out of the system before you install 4.1. When you install 4.1, it wipes out your Toaster Fonts drawer. It doesn't just reach in and trash them, it crosses hard drive partitions and dual hard drives themselves. If you do not trust me and insist on installing 4.1 thinking 3.1 will be alright because it's on another hard drive, you'll end up inserting all 45 disks from the Toaster 4000 and the six disks for the 3.1 upgrade all over again. Trust me. You have been warned!

#### TPaint and the Good Stuff

Although this may be a personal dislike, I found the new ToasterPaint very difficult to work in. I especially do not like the full-screen display. (Remember, this is personal.) You may like it very much. For me, I find it hard to do detail work on the full-screen display even though I use the magnifying glass. I really like working with the quarter screen in the old 3.1 because it gave me better control over things like street maps of my clients' locations. I have pretty steady hands, but I found it difficult to use the straight line tool and draw a long, straight line without it having at least one zag in it.

What's good about 4.1? The CG. You can rotate, size and shear lines of text and you can make them overlap or go behind other text objects. Input the text, rotate or shear it, then it goes on the screen in a box—just like the box function in 3.1. (Remember, once you have a box on the screen you can't get it off!) Then size your text brush the same way you sized your box before.

This is a really neat function and it can produce some startling graphics. One word to the wise, however: If your text is rotated and you have two lines, one line will not automatically size with the other line. For example, if you want one line of rotated text to be big and the other small, you will find that they have to be in the same aspect ratio in order to fit alongside one another. This can take a lot of playing around.

Also, if you have a rotated text line at a 45-degree angle and you are using the CG's graded type face tool, you will find that the gradation does not take place from the bottom of each letter upward, but from the bottom of the whole text object upward. So if you're using a yellow upper and a red lower (my favorite combination) the text at the bottom of the screen will be almost all red and the text at the top almost all yellow. Sometimes this looks good, sometimes it doesn't. I have had a lot of success using different color combinations.



Notice how graded fill is applied to a rotated and sheared text box. Each text box is treated as a single object.

All in all, it's a nifty new feature and I find myself going less to Alpha Paint because of it. Alpha Paint still provides more consistent color faces, however. The Toaster's are blotchy.

# **Start Thinking Flyer**

In my last column on the pre-release version of Toaster 4.1, I talked about an ARexx command called "Wait for GPI." I was told by NewTek's Project Manager, Bob Anderson, that it would be on the release version to make sequencing of Framestores easier. It was not included on the release version. Thank you (tongue in cheek) Bob! I was also told that there might be another DVE bus included in the release version. No such luck. So for the future. I will issue the

general caveat that what may or may not be said about a beta version of Toaster software is "pie in the sky by and by" and if it's not at least the pre-release version, I won't mention it at all!

Is the new release version of the Toaster 4.1 stand-alone upgrade worth the price? You'll have to figure that out for yourself, according to what you need versus the price you'll pay. Included in that price is a whole new learning curve. With the 4.1 upgrade you are really getting a Flyer without the Flyer, so you ented in your next Toaster rein-number of lively effects. carnation. That means you will

be doing things in a whole new waybased on getting a whole project ready before you begin editing, rather than creating on the fly. If you are planning to get a Flyer in the future, the obvious answer is yes, you should get 4.1.

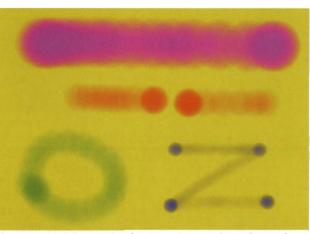
I have to confess one thing: Maybe it's because I've been in the business for

so many years, but I can edit a really terrific 30second commercial in less than half the time it would take me on the Flyer! And I'll even be able to be more creative in the process. I know other post-production people who say the same thing. I would go as far to say that I can edit a 30-second commercial faster on 3.1 than 4.1, too, but I also have to say that there are some neat things in 4.1 that I can use. I'm

talking mainly about the CG and some of the new digital effects.

## Welcome Return of Easy Anim

One of the things on the release version that was not on the pre-release version is the "Easy Anim" button restored to LightWave 3D. The ability to do Easy Anims is the sole reason I invested in a Toaster 4000 in the first place. I'm not a LightWave animator like so many other people, and I only use LightWave to fly in logos and to cant graphic boxes on Framestores. So I am happy to see people like me were not forgotten. I must say, however, that when I play the Easy Anim from the Switcher on 4.1, the anim keeps repeating itself. I have not been able to



will have to become project ori- The new airbrush function found in ToasterPaint can be used to produce a

get it to play one time through yet. I guess I'll have to phone tech support

Let me go back to the learning curve for a minute. You will find that you will have to learn a whole new operation in the CG and a whole new operation in ToasterPaint. For me, I'm going to learn

"Personally, I think that with 4.1 and 3.1, I have the best of both worlds. You may, too. But give it a real-world tryout first."

them, even though I know my brain matter will resist. There are things in ToasterPaint such as the airbrush tool that are really neat. Also, the way you save Framestores and RGB frames is new. This is the price you pay for getting something which was admittedly created for non-linear editing. You're going to have to accustom yourself to the fact that most things take longer to do in 4.1 than in 3.1.

The popularity of arena football leads me to believe that we can get used to anything, and so we will get used to Toaster 4.1. My recommendation: Go to a dealer and try it out first. Personally, I think that with 4.1 and 3.1, I have the best of both worlds. You may find that out, too. But give it a realworld tryout first. Remember, too, if you are into doing special-interest video (i.e.,

> longer videos), the Flyer and 4.1 can be a real asset, as a projectoriented work atmosphere may be better for you.

> I do mostly cable TV commercials now; three to four a week and I have to be good and fast. If I'm not, I won't get the business. I'm lucky to be experienced enough that I know exactly what I'm going to do before I sit down and edit one frame! So, whatever I say, keep that in mind.

> In the end, you're the one who's going to have to live with it, so try it out before you buy. It's worth a look-maybe even a second look.

Burt Wilson is an award-winning postproduction professional in Southern California, and the author of Complete Post Production with the Video Toaster. E-mail him at burtwilson@aol.com or visit his Web site at http://home.earthlink.net/~futurecon/.

# **TAMING THE WAVE**

# **Happy Anniversary David!**

**Vignettes, Trained Text and Time Savers** 







elcome back to "Taming The Wave," possibly the longest running source of LightWave 3D education. For those of you that haven't been with us that long, Taming The Wave has been a staple of *Video Toaster User* (and users) worldwide for five years this month. We've come a long way in that amount of time. Hopefully this column has been as useful and informative to you as it has been



Figure 1

"A vignette ... is a device
whereby the edges of an
image are affected to
evolve from one image to
another as it progresses
toward the center."

for me. I thank you all for your comments over the years and hope to continue lending you a helping hand well into the future.

Now you didn't actually think I was setting up to resign from "Taming The Wave," did you? Good! While writing this column has become more and more of a strain with my workload growing at an equal pace to LightWave's development, I think we've still got a ways to go. Without any further ado, let's dig in and see what we can find in the LightWave bag of tricks for this month.

# Vignettes

Last month we took a look at procedural textures and the power behind moving their Center points and Falloff values to obtain some beautiful results. Well, since that time I've been fooling with them some more and discovered a use for that trick that wasn't as obvious to me as it probably should have been—vignettes. A vignette, of course, is a device whereby the edges of an image are affected to *evolve* from one image to another as it progresses toward the center. You've certainly seen this effect in use with "old-time" footage, the target picture in the center falling off to black or sepia at the edges.

Rather than cover all of the information from last month, I'll presume that you are a subscriber or have ready access to back issues and simply explain the additions. In this case you'll want to create a single flat polygon facing and centered on the Z axis. If you are creating this effect for NTSC video use you'll want to use a polygon conforming to the 2x3 ratio of television. Not surprisingly, a polygon 2 meters high and 3 meters wide fits the bill perfectly.

In LightWave, move the Camera (or the panel) along the Z axis until the panel completely fills the screen. Don't go too far outside the edge of the viewing area or you'll lose some effect real estate. The main Transparency value was 100% causing the entire polygon to be invisible except the Transparency layers that had a Texture Value of 10%. For my the example in Figure 1, I used four layers of Fractal Noise texture information. Each layer has a Texture Size of .4 on all three axes. The first layer is centered at the top of the polygon (Y=1) with a 130% Falloff on the Y axis. The next layer is at the bottom (Y=-1) with the same Falloff on Y. Layer three is centered at the left side (X=-1.5) with the same 130% Falloff, this time on the X axis. The final layer was centered on the right side (X=1.5) with another 130% Falloff on X. That's all there is to it! Set the Texture Color to whatever you wish the edges to be, and voilá! An instant vignette filter! You could even animate all four texture layers for another sort of effect. Just remember to use the same motion values on all the layers and the motion will be seamless.

#### **Trained Text**

Time for another bit of rummaging through the bag...let's see here...oh, here we go! If you've been watching TV lately (which of course you should be as a source for what's hot in the television effects business) you have probably noticed that trained text is all the rage. The long hours of teaching those pesky letters

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how to spiral around things and wave and all the rest are over! Make use of LightWave's image mapping features to bring a whole new level of talent to your text.

Set up your text in Modeler as you normally would. Nothing special, just straight lines of text. Bring each one into LightWave, apply the surface colors or textures of choice and render them out as close to full screen as you can. The best method to use is the Custom Size option in LightWave's Camera panel to render a strip that is just the right size for your line of text. Thanks to the dotted guidelines in the Camera view, you should have no problem setting the appropriate dimensions. Render the image and an Alpha

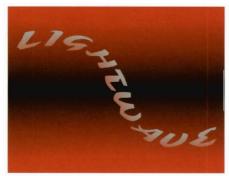


Figure 2

channel to go along with it.

Create a flat panel in Modeler that is basically a bounding box of each piece of text and do plenty of subdivisions and a triple. Give the object a surface name relating to the piece of text it will represent and save it. Load the object (or objects) into LightWave and then load the images. If your custom size was accurate enough, you should be able to just use Automatic Size in the Color Planar Image Map to fit the text on your panel. Otherwise, you should have no problem tweaking the mapping size to correct it. Put the Alpha channel in the Clip Map for the object (as a Negative Image) and you're all set. Use Displacement Mapping to cause the text to wave a like a flag. Use bones to perform complex twisting effects as seen in Figure 2. Create morph targets from the original panel mesh to make more involved performances. Now if only this method worked with my cat.

While we're on the subject of Clip Maps, you did know that they make wonderful tree facades, right? If you've ever rendered one of the nice looking tree objects making the rounds you certainly realized that they eat up lots of rendering time and RAM. What if you could have a whole tree on a single polygon? You can! Just render a tree as a color image (Figure 3) and an Alpha channel. Use the color image as your Color Planar Image map on a single flat polygon, set the Alpha channel image as the Clip Map (negative, of course) and place it in the distance. If you keep the panel facing wholly toward the camera you'll have a perfectly respectable looking tree with a minimum of resource use. (See Figure 4 which includes a dose of WaveFilter Net+'s great Depth Of Field and Gamma correction) This trick doesn't work very well if you are going to be very close to the tree, but creative use of a tall flat polygon (for the trunk) and a simple cone (for the branches and leaves) can produce some workable results.

#### **Time Savers**

Here's a tip on the "keeping yourself sane" front. Do you find that you often use the same multi-part objects in more than one scene? Odds are these are mundane things like a car that may end up being used as atmosphere material in various places or even some important character. In the car example you probably have the body as one object and two or three objects to define the tires so they can rotate and pivot properly. Each time you want the car in a scene you load the body, load the wheels, position them, define rotations and so on, right? Well you don't have to do that.

Set up a scene containing nothing but the car and tires. Fine tune the motions for your needs, such as car travelling at 35 miles per hour. Position light sources for headlights, tail lights, blinkers, the whole deal. Delete the default light that LightWave creates for any new scene so that *only* 



Figure 3

the lights you need on the car are part of the scene. Parent everything (lights included) to a default null object named "PorscheNull", for example. Now save the scene as "Car35 MPH.lws" or something equally descriptive. Next time you are working on a scene that needs the car, simply use Load From Scene. When the requester asks if you want to load the



Figure 4

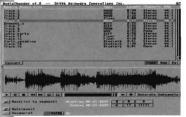
lights from the scene as well, say yes. Poof! Your car arrives fully configured and ready to roll. You can set the lights you don't need for the current shot to have a 0% brightness and leave them in place. Use the aforementioned null object to position the whole vehicle (or whatever) wherever you may like. A bit of forethought can provide you with a whole library of "pre-assembled" actors for your future scenes and save you most of the repetitive hassles.

That's about it for this month. Did you learn something new? Have any brilliant revelations? Pass them along! Valuable ideas and concepts often come from the most unlikely places and experiments. If you're on the Internet (and if you're not, why not!?) drop me a line at Ithouse@primenet.com. Stop by and see our Website at http://www.primenet.com/~Ithouse for some pretty pictures and an archive of some back installments of "Taming The Wave." Above all else, don't stop experimenting!

David Hopkins is the founder of Mach Universe, a professional animation house in Southern California, and president of the affordable rendering service bureau, Lighthouse Imaging. He is currently knee-deep in visual effects for a number of feature films and high-end corporate projects. **ASIMWARE INNOVATIONS INC....** 

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# Master ISO



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MasterISO currently supports Yamaha, Sony, Philips, Pinnacle, HP and Pioneer CD-R writers.

Each CD-R disc has a capacity of 650 MB; over 14 times greater than a standard 44MB SyQuest cartridge.

With CD-R media costs currently less than 1¢/MB, a CD-R writer is the solution to your Toaster and Flyer storage problems.

# **CD-R WRITING**





The AsimCDFS CD-ROM control package, which consists of AsimCDFS, AsimTunes, CDTV and CD<sup>12</sup> emulation modules, FishMarket CD-ROM disc and Preferences editor, allows the user to access CD-ROM discs with an Amiga computer and a supported CD-ROM drive.

AsimTunes provides advanced playback control over standard audio compact discs. Librarian features, such as track/disc naming and disc identification are also provided. Direct reading of 16-bit audio samples from standard audio CDs is possible with AsimCDFS!

Full support for Kodak and Corel PhotoCD discs is integrated within AsimCDFS, including colour Workbench icons, transparent conversion to 24-bit IFF and support for resolutions up to  $3072 \times 2048$ .

AsimCDFS is able to read ISO 9660, HighSierra, Rock Ridge and Macintosh formatted discs.

# **CD-ROM READING**

# PhotoCD Manager



Tired of struggling with complicated IFF viewers, PhotoCD converters and screen mode conflicts? End your hassles with PhotoCD Manager; a point and click solution to PhotoCD images.

It is easy to pick the pictures you want to see with the full-colour thumbnail images displayed in 4096 or 256,000 brillianr colours (HAM or HAM-8).

Interested in viewing a single picture? Simply click and watch. Or, click on multiple pictures to define your own personal slide show. PhotoCD Manager will display only the pictures you want, in the order you want.

PhotoCD Manager works with any Amiga equipped with a CD-ROM drive or a CD<sup>2</sup>.

# PHOTOCD VIEWING

Texture Heaven 1 & 2

Texture Heaven 1 & 2 is a double CD-ROM compilation. Included within the package are 682 high quality colour images. Major image classes include woods, marbles and abstract designs. These images are stored as 24-bit colour files and include full colour thumbnail previews. Compatible with multiple platforms.





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# **CYBERSPACE**

# The Data Is Out There

LightWave 3D Macros, Image Desk and More







lot is going on in Cyberspace, and you are missing out if you are not there. The Internet is growing at the rate of 20 percent per month, with over 100 countries interconnected. There are some 16 to 22 million users in the United States alone. It is becoming increasingly important to get wired, as vast resources of information are becoming available only on the Internet. We'll take a look at

some of these amazing resources, but first, let's look at a few programs that you might find useful.

#### VTU Database

A while back I wrote about a wonderful inclex to back issues of *Video Toaster User*. Ross Fenmore put in an unbelievable amount of effort to create this database, and I found it extremely useful. The newest version (AVIDIndex96) has just been released to the net. It is an ascii delimited file that can be loaded into any database. With it, you can hunt down tips, tricks, or articles that you now only vaguely remember (assuming you have been keeping those back issues). Can't remember in which issue I wrote about a specific utility? It even includes the names of the programs I write about each month. Download your copy today!

# MainActor Broadcast

MainActor Broadcast is easily the best animation utility for the Amiga. An early incarnation was available as a PD program, and it was one of the better PD offerings available. They now have a freely distributable version of MainView Broadcast that can be used for playing a variety of animation formats. It only has a limited amount of loader/sound modules, but supports all playback features of MainView Broadcast. It is able to play IFF-Anim5/7/8, CyberVision, FLI, FLC, Picasso, Piccolo, Retina, Merlin, and Spectrum format animations. It can be integrated into file managers such as Directory Opus. It also plays IFF and MOD sound files. The only place I was able to find a copy was at their site in Germany at www.accopy.com/maincpt.html.

## **ImageDesk**

Exactly a year ago I wrote about ImageDesk, a utility to catalog pictures. It has gone through a few incamations since, and Reinhard Haslbeck has recently released version 3.04. ImageDesk automatically scans directories and creates thumbnail images of each picture. It can automatically recognize IFF ILBM (color mapped, EHB, HAM, HAM8, 24-Bit, DCOL), GIF (87a, 89a), JPEG, PCX (1 bit up to 32 bit), BMP (4,8 and 24 bit, OS/2 and Windows formats, unpacked only), PCD (up to BASE size), PNM

(P4, P5 and P6), TARGA, and Amiga DATATYPES (picture class). You can set the thumbnails to launch an external viewer to display the picture, or launch an ARexx script. The catalog files can also be stored with XPK compression to reduce their size.

ImageDesk catalogs use a proprietary format and are only displayable on Amigas, so Reinhard also wrote MIPFIC (which is now included in the ImageDesk 3.03 archive). MIPFIC generates IFF pictures from catalogs made with ImageDesk. It allows various layout styles such as different border and text styles, and custom spacing. It also has a built-in preview function so you can see what these layouts look like. These 256 color images can be easily converted into other formats and displayed on any computer system. For example, you could create a GIF-based catalog of your images that you could post on your Web page.

Both of these programs require that you have Workbench 3.0 and a 256 color display.

## LightWave 3D Macros

I discovered a site of interest to LightWave 3D users. It can be found at isys.ml.org and is sponsored by Imaginative Systems. They have a very good ftp area, and lots of LightWave information. One of things I found especially useful was large collection of macros written by the prolific Gonzalo Garramuño. They come with an AmigaGuide document that is outstanding and clearly explains how to use them. You may have seen some of these macros floating around separately, but the versions in this collection are dramatically enhanced from the earlier versions. This is easily the most impressive collection of LightWave marcos I have seen. Here is a brief overview of what they are and what they can do:

- "Add Bones" lets you use Modeler's splines to sketch out your bone skeletons, even with IK support.
- "Curve to Polylines" converts any selected curves into Polylines. This is specially useful for visualizing bone structures previous to using the "Add Bones" macro.
- "Break" allows you to splice one object into several pieces. It allows you to exactly select the amount of detail you want to get in your pieces and make them look 3D even without using Booleans). You can set a bounding box to break just a part, such as the wing of a plane, and you can choose Booleans or solid drill.
- "Explosion" is used after the "Break" macro to blow your objects to pieces and create a scene file with lens flares, an explosion object and particles. You can set a start and end frame, the type of explosion (spherical, radial or linear), the initial and final velocity of each piece, the expansion percentage, the final polygon size, minimum and maximum rotation angles, implosion, gravity, frames per second, explo-

sion height, ground position, bounce energy, lens flare, an explosion object that has a fractal displacement map to create expanding flames or light, particles and several other options. These two macros can be used together to create very effective explosions.

- "Enter Points" improves on NewTek's "Enter Points" macro. Besides allowing you to easily and quickly enter points numerically, this macro also allows you to create curves and polygons with them and provides you with a status line of how many points, curves and polygons you have created.
- "Exposure Sheet" allows you to take a Disney Studio Exposure Sheet and turn it into an ASCII file and/or five envelopes for LightWave. When used properly, it can be a very effective way of doing lip sync.
- "Hair" creates realistic fur and hair, and hairs can also be made of curves and morphed easily.
- "Melt" will create a scene with a melting object.
- "Move" Scene allows you to move your scene files with all objects, images and image sequences to a new directory of your choice or several floppy disks, while formatting them in Amiga or PC format. It will automatically change the paths for you (in both the scene and objects) to point to their new location.

#### **On-line Publications**

Did you know that you can access the contents of many of the leading video and graphics magazines via the Internet? A visit to www.portal.com/~amg will take you to the former AMG Media site, now owned by Miller Freeman Inc., with Web pages for Video Toaster User, LIGHTWAVEPRO and Rec•>, the on-line supplement to Video Toaster User. Not only will you be able to access selected articles from back issues of Video Toaster User (but not, for some incomprehensible reason, past Cyberspace columns), you can also access LIGHTWAVEPRO On-line, a special Web edition of LIGHTWAVEPRO.

WWW.ilovevideo.com:80/links.html takes you to the PVE Link Page. It includes links to the home pages of over 40 video related companies, including Adobe Systems, Alien Skin Software, NewTek, FAST, JVC, Panasonic, Sony, and Skipstone (a major FireWire resource).

It also includes links to several magazine home pages, including 3D Artist (which features the *Tessellation Times* on-line as well as many other 3D

resources and links to 3D-related sites). Knowledge Industries (publishers of AV Video, DVD Report, and Multimedia Producer—they have archives of past articles and you can get professional subscriptions on-line), DV Magazine, recently acquired by Miller Freeman Inc., (with a complete archive of back issues), Focus Video (Hi-8 Users Group), Hyperzine (an on-line magazine focusing on photography, video and imaging), PC Graphics & Video (including This Week in Review for the latest news and selected articles from current and past issues). VideoMaker (with downloads, selections from past issues, and breaking news), New Media Magazine, and a link to this fine magazine.

WWW.enews.com/magazines is the Electronic Newsstand, with links to over 2,000 magazines. The computer section includes almost every computer magazine you can think of, along with many Amiga published and on-line magazines.



MaxFilmPro at www.maxfilmpro.com is a great resource for video producers, and best yet, its free!

The system includes a search engine. I typed the keyword "video," and pulled up endless references to video articles in various magazines. Clicking them takes you directly to the article mentioned.

There are some great 3D and graphics sites around. Keith Christopher's WaveRider home page at tomahawk.grandi.com will be of interest to Toaster users. Besides offering a mirror of the NewTek ftp site, you can join the Toaster and LightWave mailing lists from here, jump to a gopher site, jump to the LightWave ftp site, as well as several other ftp sites.

The New Graphics BBS is a graphics specific BBS which can be reached on the Web at www.graphics.com, by modem at (908) 469-0049, or via telnet at telnet://graphics.rent.com. It includes tons of LightWave objects as well as many other formats, image maps, MPEG videos, access to the LightWave Plug-in mailing list, info on the LightWave IRC channel, and lots of other resources. Their ftp site has objects, plug-ins, LightWave macros, textures, and utilities.

#### Cinebase and MaxFilmPro

If you are producing videos professionally and you need any kind of service, there are sites on the Web that can help you locate exactly what you need. Cinebase at www.cine-base.de offers the ability to search by keyword through their Online Production Guide. They charge \$35 for membership and a per hit fee of \$1 for doing searches. You can search for freelancers, actors, services, productions, equipment, studios, items to sell and buy, and other categories. You can specify a specific geographical area for these searches. It is an international resource.

Another service providing similar search capabilities can be found at www.maxfilmpro.com. MaxFilmPro is one of the best resources for the video production professional I have seen, and best of all, it is a free service. The Production Resources section lets you search in several major cities for resources such as hotels, casting directors, camera operators, equipment rental, screening rooms, editors, set dressers and many other areas (119 categories in all). The Location Scout lets you choose a city and access information on local filming requirements, how to contact the film commission, permits, local weather, insurance, scenic areas, unions, general information, local legal considerations, and several other topics. The Production Activity section lets you search by keyword to find out about domestic and international film and TV productions. There is a section on forms and contracts that includes an Investor Financing Agreement, Minor Release, Personal Release, Stills and Excerpts License, Stunt Performers Agreement, Submission Release and a Turnaround Agreement. The Newsstand includes Tech Talk, Foreign Forum, Independent Insights, Legalese, Gallery and News Bytes. Currently, it is limited to major U.S. cities. This rapidly growing service is definitely one to watch.

As usual, if you want the utilities covered this month and don't want to go looking for them, I have put them all on a disk along with an HTML file you can load into any browser that allows you to access all of the sites I have mentioned, plus many more with a simple mouse click. You can have it by sending \$5 to: Geoffrey Williams, Disk Offer, P. O. Box 10095, Glendale, CA 91209. Please make note of my new e-mail address: cbp@cris.com. My old account is no longer valid.

# **SLICES**

# **Troubleshooting 101**

# **Tracking Down Flyer Errors**



by James Hebert



ince the Flyer is a non-linear editor that eschews the traditional timeline interface for editing video, it can be difficult to track down errors. During the early phases of software development, we discovered all manner of bugs related to croutons (those tiny tiles with pictures on them) that we had not anticipated.

For example, we determined that the Flyer should always start and end a sequence with video black, unless the editor placed something else in that location intentionally. Since most people start the process by thinking of the first scene, they tend to place the opening shot right at the beginning of the sequence, without thinking about the fact that they need to lead



FX starts too early.

Cure: Lengthen B or Shorten FX.

Figure 1

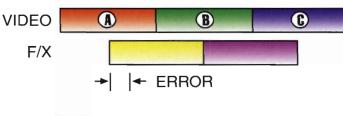


Figure 2



FX starts too soon after previous FX. Cure: Lengthen B or Shorten FX1 or FX2.

Figure 3

into that shot with bars, tone, a period of black, and then a dissolve (typically). Then you go for a playback to check your work. Oops! Forgot the proper intro. So you return to the beginning and set up the proper starting croutons. You check the playback and continue.

This led us to decide that, in case the editor forgot to

do so, we would have the Flyer "protect" the video output with the normal between the scenes color—black. As a bonus, you could just place a dissolve at the beginning and end of your sequence and have perfect *fade from black* and *fade to black* transitions.

#### **ARexx**

But oddities still crept in. When you use the ARexx script "Replay" you must place it at the very end of the sequence in order for the entire sequence to play repeatedly. While this seems sensible on the surface, it would have been preferable to give the editor the freedom to place ARexx scripts where he wished. In fact, if the ARexx crouton follows an effect (i.e., the dissolve at the end of the sequence) then the Flyer will refuse to play the project. Even though the Flyer knows that video effects and ARexx croutons are unrelated visually, and that the position of one should not affect the other, it gets held up at that juncture. This is an inconvenience more than a bug, yet it is indicative of the kinds of sequencing problems that need to be addressed. In any case, the Flyer cannot process any ARexx scripts until the end of the sequence. Hence, Replay must be placed at the end in order to work (if you place it elsewhere, it is not processed until the end anyway). This limitation severely curtailed ARexx tricks in scripting and sequencing, so most scripts that you find relate to editing and not sequence timing or playback tricks.

#### **Sound Effects**

Think of the plethora of sound effects files in the public domain, and then remember that there are a half-dozen or more very popular computer platforms. Think too that you can find conversion utilities to convert from one platform to another. That makes for a lot of sounds. Wouldn't it be slick if you could convert those to Flyer clips? Or mod files—those electronic music files that can be incredibly listenable? It would be interesting to be able to create your own mod files as background tracks; simple and effective soundtrack music to fill in the background of a scene.

Wouldn't it be useful to be able to trigger them from the Amiga playback (why tie up a Flyer's audio channel anyway) and use an external mixer to blend them into the final playback? In many cases, unless your audience is part of a convention of audio recording engineers, you're not likely to find them nit-picking the audio effects. Well, ARexx triggers are not a part of the big picture. However, I have heard of a utility that will perform sound-conversion tricks with Flyer clips and Amiga audio clips. I will check it out and see if there are any

chances for mod file conversions as well. When I find it I'll let you know.

"Also, you should note that the Flyer treats both video clips and Flyer video stills as 'video events,' because they are essentially one and the same."

# **Flyer Error Fix**

With regard to Flyer editing and timeline-based feedback, here are some editing situations that the Flyer will generate an error message for you, presented in a timeline format. It helps to see both the Flyer and timeline displays, so we'll show you both. This should give you a good idea of what is happening while you edit with the Flyer. In all cases, we'll use the cut and the dissolve effect as our example transitions. Also, you should note that the Flyer treats both video clips and Flyer video stills as

segments, A, B and C. Each is a video clip, with accompanying audio.

There is no transition between A and B, so we will see a cut during playback. There is a dissolve between B and C. In the Flyer view, you can see that A begins to play. We then cut to B. And we then dissolve to C.

**VIDEO** 

F/X1

But in the timeline view shown in Figure 2, where the duration of the effect can be represented graphically, you can see that the dissolve Figure 7 from B to C requires more

video footage from clip B, which is not long enough to allow for a dissolve of this length. The effect must start too early for the Flyer, but it cannot overlap three video clips. The only solu-

tions are to lengthen clip B, shorten the effect's duration, or remove the effect entirely.

When the Flyer encounters situations such as this, the editor tries to help by giving you an indication of the

> amount of time that represents the overlap, so that you can either lengthen clip B or shorten the effect by the necessary amount to make the sequence work.

In Figure 3, we again have three video clips: D, E, F. There are two dissolves: One between D and E, and another from E and F. Again, the editor view does not show the relationship of time between clips and effects.

Figure 4 shows the problem. Clip B has a dissolve in (from clip A) as well as a dissolve out (to clip C). The length of the two dissolves dictates that they each overlap a little ways into the total playing time

of clip B. The problem: Clip B is not long enough to sustain both transitions. The two effects overlap as well, in the middle of clip B, so the Toaster/Flyer (a single channel effects system, meaning one effect at a time) cannot perform the effect. Here the solutions include sever-

ERROR → | ←
CUT or FX here

shown in Figure 2, where the FX can not end after previous clip.

duration of the effect can be cure: Lower A's out-point or Shorten FX.

**(B)** 

VIDEO A

VIDEO B

F/X

Figure 8

Out

Out

Figure 8

(FX)

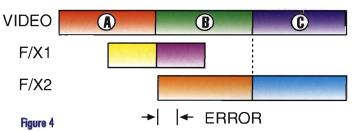
al choices: You could shorten the length of either effect, or lengthen clip B so that each effect has ample time.

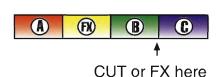
In Figure 5, three more clips await our bidding, G, H, and I, along with one transition between G and H. Again, all things appear normal. However, playback gives you a message about needing "more leading video."

A look over at Figure 6 displays what happened in this situation. Here clip H is too short for the duration of the transition leading up to it. The effect is still "in progress" by the time we reach clip I! At that point, we would see some amount of clips G, H, and I overlaid, if the Toaster could do it. You can't mix three sources in the Toaster (unless anyone remembers the old Art Card Effect!), so this condition is disallowed and the error message results.

The error message is helpful here. It will tell you that you should either shorten the length of the effect, which might bring the entire length of the transition down to a point within the length of clip H, or you can open up clip I and drag its in point to the right (creating more unused "head trim" time at the leading end of the clip).

Let's move on to another common situation, one that many editors did not understand at first. It has to do with "head trim" and "tail trim," terms that





FX ends too late.

Cure: Lengthen B or Shorten FX.

Figure 5

"video events," because they are essentially one and the same. Both have inand out-points. Both have duration. So this discussion reflects equally on stills and clips, even though I use the word clip to describe them.

In Figure 1, there are three video

# the Video Toaster. and LightWave 3D. Universe!



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# **TOASTER & LIGHTWAVE TRAINING @ VIDEO TOASTER USER EXPO '96**

# **Tuesday, November 5**

#### 9:30am - 11:30am

- Beginning LightWave Techniques Brad Peebler
- LightWave Modeler Tips & Tricks Jason Linhart

# 1:00pm - 3:00pm

- Beginning Modeler Techniques Brad Peebler
- Organic Effects Grant Boucher

# 3:30pm - 5:30pm

- Flying Logos / 3D Logo Basics Don Pence
- MetaNURBSTM & Character Modeling Jason Linhart

# **Wednesday, November 6**

# 9:30am - 11:30am

- Envelopes, Motion Graphs, Keyframing Brad Peebler
- Toaster Essentials, a Beginner's Guide Bob Anderson

# 1:00pm - 3:00pm

- ••• Character Animation Part 1: Bones Jason Linhart
- Power ToasterPaint Techniques Bob Anderson

## 3:30pm - 5:30pm

- ••• 3D Compositing Dan Ablan
- • Video Titling with the Toaster CG Bob Anderson

# **Thursday, November 7**

## 9:30am - 11:30am

- ••• Real World Special FX Dan Ablan
- Editing with the Flyer Bob Anderson

# 1:00pm - 3:00pm

- ••• Displacement Mapping & Surfaces Dan Ablan
- Lighting & Camera Angles John Parenteau

# 3:30pm - 5:30pm

- ••• Character Animation Part 2: IK and Animation Jason Linhart
- Live Taping with the Video Toaster Flyer Stan Shumlick

# Friday, November 8

## 9:30am - 11:30am

- ••• Advanced Logos & Corporate Graphics Stan Shumlick
- Beginning LightWave Techniques Brad Peebler

# 1:00pm - 3:00pm

- ••• LightWave Plug-Ins: Real World Uses Jason Linhart
- Beginning Modeler Techniques Brad Peebler

#### 3:30pm - 5:30pm

- Advanced LightWave 3D: Open Forum Q&A John Gross
- Time-saving Techniques in LightWave Stan Shumlick

# EYE OF THE BEH

by Sam Kanter

As you leaf through the pages of *Video Toaster User*, you'll see some very useful articles about shooting and editing wedding videos, special interest videos, industrial and corporate training tapes, legal and forensic video, and TV commercials. These are the "bread and butter" of many video producers and the staples for all of us who are trying to make a living in

# A PERSONAL JOURNEY INTO THE WORLD

"Every child is an artist.

The problem is how to remain an artist once he grows up."

—Pablo Picasso

video production. The Video Toaster and Flyer have been wonderful tools for helping us achieve quality production values that will satisfy and impress clients. What you won't see much of is the idea of video as an art form. In this context, video doesn't necessarily have to please a client, sell a product, or tell a story. Like poetry, painting and music, video can be a legitimate medium for artistic expression and experimentation. Our cameras, Toasters and Flyers can become a means to a different end, one that can offer rewards other than monetary.

## What Is Art, Anyway?

This has never been an easy question to answer. Let's try by differentiating between art and commercial entertainment.

Commercial entertainment (most of TV and Hollywood films) is profit-motivated and sets up a system of conditioned response to formulas. In my opinion, commercial entertainment not only isn't creative, but actually destroys the audience's ability to appreciate and participate in the creative process. Commercial entertainment seeks to manipulate, while art seeks to deepen our awareness. The issue of art versus entertainment is certainly not always black and white. Some entertainment has artistic qualities, and art can be very entertaining.

In my view, true art is always experimental. It does not begin with a storyboard. It is more of a *process*, where the work reveals itself to the artist. It has a life of it's own. But it's beyond the scope of this article to survey the history of video as an artistic medium. I'd much prefer to tell the story of my personal

story of my personal journey into the world of video art.

# OLDER

## It All Started With Howdy Doody

Being born the same time as the emergence of television (1946), it seemed natural that it played a major role in my life. As a kid, I watched a lot of TV and the new medium was very exciting. By the time I got to college, I was a very serious young man and wanted to be a TV journalist. After learning some basics about video production, I got a job working for NBC News in Washington, D.C. The year was 1968, and it was a very dramatic

# Dance, Music, and Video

Cut to 1983, fifteen years later. I had become a musician and composer, and I was married to professional dancer/choreographer

professional dancer/choreographer Deborah Gladstein. We collaborated often (my music scores accompanying her dance company's choreography), performed in theaters in New York City and toured all around the United States and Europe. By this time video equipment had become much cheaper, and we decided to buy some VHS equipment —a portable deck and camera—mainly to document Deborah's choreography for archival purposes.

After shooting one of the dance pieces, I notice that the choreography

for interesting images. By the end of the day I had shot over *five hours* of material of this two-minute segment.

Then we bought a second consumer portable VHS deck with one of the first consumer editing controllers (Panasonic). After much experimentation, I found that this consumer editing system was quite consistent, and that I could get edits that were plus or minus one or two frames. The decks had fairly clean slow-motion, and we made extensive use of that.

Deborah and I wanted to show this video at a concert a couple of months away, so we knew we had better start editing. The only problem was—neither of us knew anything about editing.

# OF VIDEO ART

period in our history. In a single year Robert Kennedy and Martin Luther King were assassinated, the city of Washington burned, the Vietnam War raged on and millions of people demonstrated in the streets.

I was in the enviable position of having access to every news story and presidential press conference, because I could go out and assist any reporter I wanted. I got to know quite a few popular TV journalists. While they were nice enough guys, it bothered me that they were prohibited from expressing their personal opinions because of the need for objectivity. I decided to abort my career as a TV journalist.

Around this period, Marshall McLuhan wrote a book called *Understanding Media*. He coined the term "global village" as a concept for television's future. For the first time, portable video units were becoming available. These were 1/2" decks with separate cameras, weighed about 40 pounds and cost about \$4000 (in 1969 dollars). The idea of people other than networks having access to video was beginning, and the term "guerrilla television" came into being.

As stimulating as all this was, I couldn't afford my own video equipment, didn't want to work in the television industry, and became frustrated with the idea of video as a career. I decided to pursue my other great passion—music, and bought a used piano for \$250. I spent the next 15 years as a professional musician.



Images from *Kalahari* by Kanter and choreographer Deborah Gladstein.

looked unusually flat and uninteresting once it was transferred to the video screen. The images were two-dimen-

guided by our aesthetics,

instincts, and perceptions.

Because we didn't know

how to edit, we had no pre-

conceived ideas of what

was right or wrong."

sional, and all the energy emanating "The piece developed by itself, seemed to be lost.

It was then that I made an important realization: Once material is transferred to a different medium, you must use the tools of the new medium. I finally understood what McLuhan meant when he said, "The medium is the message." I then set out to make my first creative video work.

I got the dancers back in the theater and chose a specific part of the choreography (just two minutes) for them to dance. I shot these same two minutes over and over—different angles, close-ups, wide-angles, overheads (from a ladder), on the floor. My camera danced with the dancers, letting myself go, not having any plan, just looking



Some of the images that called attention and critical acclaim to our film.

So, we carefully went through all five hours of material and logged every scene that appealed to us, putting each one on a separate tape. Most of these scenes ranged from one to 10 seconds.

> We learned by trial and error, what works and doesn't about editing movement. We spent over 100 hours transforming the five hours of tape into an eightminute piece, learning how to edit in the process. Back then I couldn't have conceived of a Toaster or Flyer. Just being able to edit at all was exciting.

> As we edited, we didn't really

know what the finished work would be. The piece developed by itself, guided by our aesthetics, instincts, and perceptions. Because we didn't know how to edit, we had no pre-conceived ideas of what was right or wrong.

We took our original VHS masters and dubbed them to 3/4" and re-edited in a professional studio. We didn't even know about time codes and edit lists. Then I added a music score. The finished piece was an impressionistic combination of color, movement and rhythm. It looked more like a moving painting than a dance—due in part to the lack of detail in the VHS image, which worked to our advantage. We called it *Kalahari*, as the percussive score and muted red colors of the costumes reminded us of the African



The Village Voice called our film, "A super video...like a moving painting rich in color."

desert.

We projected the finished piece on a large screen at it's premiere showing in New York. *Kalahari* got rave reviews in the *New York Times* and the *Village Voice* called it "A superb video...like a moving painting in rich color." We sub-

mitted the piece to the National Endowment for the Arts as the basis for raising money to do another piece. We were awarded \$8000 to continue our work. *Kalahari* was shown at several video festivals all around the world, and was aired on PBS television's *Eye On Dance*.

# Yellow Springs Institute and Element

At this point we had earned a substantial budget for our next video project. We applied and were accepted to The Yellow Springs Institute, an artist's residence program in Pennsylvania. Deborah was there with her company to work on choreography, as I worked on a music score and video project.

I decided I'd like to use natural settings and natural light, but that's about all I had in mind. I asked a few of the dancers try some movements against various natural textures like rock, tree bark and water. Something was wrong. The colors and textures of the

dancer's clothing looked totally incongruous to nature's backgrounds. We kept trying different clothing, but nothing looked right.

I shyly suggested that the clancers remove their clothes. My instincts were correct, and the nude bodies in the natural surroundings were wonderful raw material for the camera. I realized that the nude had been, for painters, a classic subject for centuries, but had not been used much as a subject for video artists. The challenge was to use the medium in a different way, and to communicate something other than eroticism. We also had to be careful that the women didn't look like water nymphs from a ginger ale commercial.

We liked the material we shot at Yellow Springs, but it wasn't enough. The work became a quest for the next four years. We shot nude bodies in various natural, outdoor environments as we toured all over the world. After

shooting about 20 hours of material, we still weren't quite sure what the piece was about, so we started viewing, logging and editing. By now we were a bit more informed about video production



Voice called it "A The rhythmic beat and warm colors reminded us of superb video...like a the African desert, hence the name Kalahari.



Images from the video Element.

and had the VHS material bumped up to Betacam with time code window dubs. Because we had an \$8000 budget, we were able to edit our piece in a professional, on-line studio using the edit lists we had made in our at-home off-line studio. This was still a few years before the release of the Toaster.

It was an incredible amount of work, but after about a year we had a finished an eight-minute piece. We discovered that the most interesting images came from the bodies shot in water, and that the interaction of skin, water and light was really what the piece was about. *Element* was more abstract than our previous work, although the idea of a moving painting was even more evident here. *Element* was presented in many video festivals and won several awards. Even better, it enabled us to get more funding from the National Endowment for the Arts (\$10,000) so we had some money to

"I shyly suggested that the dancers remove their clothes. My instincts were correct, and the nude bodies in the natural surroundings were wonderful raw material for the camera.



The dancer's nude bodies in the natural surroundings were perfect raw material for the camera.

I realized that the nude had been,
for painters, a classic subject for
centuries, but had not been used
much... for video artists."

continue our video work.

## Flying Into The Future

Since then we've done live video/dance performances including real-time computer animation, and taught workshops in colleges and universities throughout the United States and Europe. We are currently working on several video projects in various stages of development. We have no clients to please and no deadlines to

Video Art continued on page 32

## Slices continued from page 23

grew out of film editing (where you really had excess frames at the beginning or end of a scene). When you want to dissolve from clip X to clip Y, for example, you need to ensure that there is enough footage to cover for the

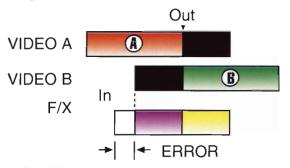
Figure 8 shows you what this would look like. Everything looks OK at first until you reach the end of clip I where the transition continues a bit longer than the video from the outgoing clip. The cure here is to shorten the length of the effect, or lengthen the video clip before it.

you turn to your pocketbook. For example, if you have a project giving you trouble, try these steps:

Save the project under a new name. If it is a large project, delete half of it. (Remember, this is just a copy, so you can mistreat it as much as you wish!) Try to play the remaining half and see



FX can not start before following clip. Figure 9



Cure: Increase B's in-point or shorten FX. "You have the option of shortening the length of the selected effect (the Flyer will always try to place its error messages in reference to the items you see on the screen, so something will be highlighted with commentary related to the highlighted item)."

Figure 10

overlap between the two marked edit points that represent the out (from clip X) and the in (from clip Y). Here's a what if.

You set the in- and out-points for clip X to the very ends of the entire clip. Clip X lasts for 8 seconds. You set

Y, which lasts for 10 seconds, to use only the inner 6 seconds of the clip, leaving 2 seconds at each end unused. You place X in front of Y, with a 1-second dissolve **mean? That a timline edi**between them. You hit Play. Oops! There is no footage after the end (out point) of clip X. The dissolve begins at the out point, but there is no footage from clip X at that moment, no tail trim to use for the dissolve over to clip Y. At the

moment the dissolve should begin, there is no video left to clip X, so it's literally just a cut to clip Y.

In Figure 7 we have clips J and K with a transition between them. The transition is too long for clip J, and once again the clip runs out of time before the transition is complete. The Flyer tells you that the "Effect starts too near the beginning of the previous video event."

Finally, we come to my last example, Figure 9, where the reverse situation from Figures 5 and 6 may occur (the second clip in a two-clip sequence is not long enough). In this case the leading video from clip M is not enough to cover for the transition

"So what does all this

tor is a must-have for

the Flyer? No.

Save your money."

out of clip L.

Figure 10 shows the whole story. You can probably read them like a book by now. The Flyer claims that this "Effect needs more leading video from the following crouton." You have the option of shortening the length of the selected effect (the Flyer will always try to place

its error messages in reference to the items you see on screen, so something will be highlighted and commentary related to the highlighted item).

So, what does all this mean? That a timeline editor is a must-have for the Flyer? No. Save your money. It would not necessarily be ill-spent, as Harold Russell's editing add-ons for the Flyer are excellent, but there a few tricks you can try to test the waters before

if it works. Then reload the copy, delete the other half, and see if the remaining section plays properly. Save the project under a new name. Now go through it and remove all of the effects (transitions). This leaves nothing but audio and video. Try to play it. If it plays okay, the problem is related to an effect (or the timing of a clip on either side of an effect). If it will not play, remove all the audio clips, leaving only video with natural audio. Now play the project to see if it was audio related (or possibly an audio conflict where a transition was concerned).

Although these are crude all or nothing methods for troubleshooting a project, they are effective, and I hope they provide you with a better understanding of the Flyer.

James Hebert is a technical writer for QuVis, Inc., maker of QuBit and other products. His credits include manuals for the Video Toaster, Flyer, LightWave 3D and others. Reach him at james@quvis.com.

# **EDITORIAL EVALUATION**

Circle number on Reader Service Card I found this article:

Very Useful Circle 028

Heaful Circle 029 Not Useful Circle 030

any years ago I was approached by a real estate developer who wanted to show potential clients what their homes would look like before he had actually built them. As I listened to him, I guess my eyes must have glossed over, because he got this disappointed look on his face and started to walk away. I had just purchased one of the first Video Toasters off the assembly line and was still trying to figure it out. Suddenly, I realized how I could do it with ToasterPaint, and how much repeat business his offer represented, so I leapt after him! This is a terrific way to make money with your Video Toaster, and one that doesn't require an expensive editing suite. All you need is a camera, a scanner, and your eyes.

VIRTUAL

# **Getting Started**

The next day we visited the construction site. Yup, it was just as he'd described it—a dirt lot. What he wanted seemed impossible: To show these streets with homes on them, complete with grass, sidewalks and trees. In other words, he wanted an appealing little neighborhood shown where now only stood rubble.

Keep in mind that it was early in the desktop revolution. The only people doing architectural fly-throughs were marketing

agencies who cost a gizzillion dollars; something a local contractor couldn't afford. I hadn't even attempted to explore LightWave 3D yet (it frightened me!), so 3D was

out of the question. 2D was the way to go. I had a photographic background, which helped when it came to getting the pictures I'd need for scanning. Pictures of trees, grass, shrubs, sidewalks, and

buildings from his other completed developments. Of course, today you can buy complete libraries of objects on disks that can be imported as clip art, and then plunked down. But sometimes you'll still have to go get the picture yourself, if you want a particular angle or lighting.

#### **De-Construction**

bv

Michael A.

**McBride** 

First, so he'd have a marketing tool to work with, I created a series of images that looked like I'd done exactly what he'd asked for, but in reality was just the



Figure 1: The original house before De-construction.

opposite. I call it De-Construction. It was cheating, but it involved the same techniques that were used to create the neighborhood. Here's how to do it.

Go out and find a house that is laid out on the horizontal (Figure 1). This makes it easier to cut up, while still leaving it looking like a complete home. Find one with interesting lines, and take a picture of it. (Be sure to get the owner's permis-

sion. You'd be surprised how many people today still use rock-salt in their shot-guns!) Next, scan the image, load it into ToasterPaint, and begin to remove things like the trees and grass, and parts of the house (Figure 2). Remove them by cutting out as a brush whatever is adjacent to the item, then pasting it down over it. Do this in stages, saving each progressively more de-constructed image (RGB) until all your left with is a simple starter home (Figure 3).

You can replace the grass with dirt by using Draw Mode/Rub Through. Simply scan a photo of a dirt lot (remember to consider your angles when taking your photos), and load it into ToasterPaint. Select Copy to Swap from the Options menu, sending the dirt lot to the Swap Screen. Then load the image you are de-constructing. Select the Polygon/Vector Line drawing tool, click Solid, select Rub Through from the Drawing Mode menu, and proceed to trace out the lawn. When you release the mouse button you'll see dirt replacing the lawn (Figure 4). Cool, huh?!

Once you're completely finished deconstructing the house, cleverly rearrange the images so it appears that you took a small house on a dirt lot, and built it into a dream home (Figure 5)! Now you can either print them, if you have your own photo printer, such as the FotoFun printer from Fargo, or you can take them to a photo lab. Or convert them into Framestores and go to video!

## **Building Your Libraries**

With your de-construction completed, you're ready to start building the photo clip art libraries you'll need to landscape the lot. Get pictures of grass, trees, sidewalks, shrubs, fire hydrants, telephone poles, sky—you get the idea. Just about anything one might find in the average neighborhood. Be sure to



Figure 2: The upper story windows have been removed by cutting and pasting sections of the roof on top of them.

take your shots from various angles. Above, below, or straight on. That way, you won't have conflicting angles when you start assembling your final image. Scan the developed photos into your computer, load them into ToasterPaint and save them as RGBs.

Note: When working in TPaint, always save your work in progress as an



Figure 3: Now it looks like a simple starter home.



Figure 4: Remove the lawn, add portable potty, and presto—the lot appears to be under construction.

RGB file, not a Framestore. Framestores degrade each time you reload and then resave them, which makes the images progressively more muddy. RGBs on the other hand, can be reloaded and resaved as often as you like with no degradation of the image.

Cut out each item and save it as a brush. Then reload each one and paste them down onto a black backdrop (at this point you should categorize and name them using the text tool, The developer will want to specify what goes where on the landscape, so you'll need to know if a tree is a Maple or an Oak). Now, by selecting No Backdrop from ToasterPaint's Options menu, they'll be much easier to pick up when you need them. All you need do to retrieve them is select the Cutout and Box tools, and then open a box around the specific item you want. It'll just pop up from the background without any of the black, just like when you cut it out of the original

photograph.

With this method, you can create your own files of landscape photo clip art. As I said before, though, you can also buy libraries of trees, shrubs, grass, etc. This can be a terrific time saver, if you've got the money. On the other hand, by creating your own image libraries, you have much more control over the look and feel of the final product. Use the same techniques to collect houses from different angles. The developer can direct you to the homes he wants shown on his lot.

# **Completing The Project**

Once you've got your image libraries, you're ready to start. Scan the original photo of the dirt lot, and begin cutting and pasting items onto it. Replace the dirt with grass by using the same De-Construction techniques. Add roads, sidewalks, street signs, trees, grass, shrubs, sewers, and víola, you've got a neighborhood! (Note: The images shown are from the original project. They are blurry due to the limitations of the photoprinters of the time, not the publisher. Today, photoprinters cost 1/10th as much, and can give you photorealistic quality!)

This was a big project. It's more likely that you'll be asked to show a home with a simple addition. Such as adding a bay window, extra room, second story, or new paint (Figure 6). I call these "Day Projects," because they don't take much longer than that to complete. But they can still earn you hundreds of dollars

each!

Simply take a "straight on" shot of the side of the house where the proposed addition will be. Then use the same Cut and Paste techniques to add or remove the items. Homes with siding are especially easy, because the siding lines up so nicely. It takes practice, but



Figure 5: Arranging the images in reverse order provides the client with the final sales too.

eventually you'll be able to seamlessly alter the original configuration of any home.

Today, LightWave 3D has emerged as the king of the bundle where the Toaster's software is concerned. But ToasterPaint is also very powerful, and with some ingenuity, you can use it to earn a very good salary, or supplement an existing one. I've used TPaint, with these techniques, to help attorneys win personal injury cases, help designers build things, help dentists train other dentists, and help a town redesign its Main Street. No video production tool is as powerful as the Video Toaster. With

its ability to scan, freeze, and import/export images into all of its software, it's the best multi-purpose tool on the desktop today!



Figure 6: What a difference a little paint makes!

# Here's A Tip

Sometimes you'll get a hard edge when you Cut and Paste an item into place. You can help blend the edge with Blur. Simply trace along the offending edge with a single pixel line tool. Then select Blur from the Drawing Mode menu. It'll soften the edge just enough to make it look like a single piece. You can add more Blur by using Redo. Each time the line will blur a bit more.





Figures 7 and 8: I removed the docks and gave the building a face lift with a hand-painted look.

Michael McBride heads Caldor Corp.'s video/graphic department and owns CyberGrafx.3D, a modeling/animation company in Connecticut. He can be reached at 76601.2354@Compuserve.com.

## Video Art continued from page 28

meet—only our own stringent standards tell us when our work is ready to be released into the world. If we get funding to do work, all the better. If



The challenge was to use the medium in a different way and to communicate more than eroticism.

not, we do it anyway.

The Video Toaster and Flyer makes a big difference today. We can do non-linear, on-line editing by ourselves and this makes an incredible difference in an artistic project, no matter what the source material. The idea of freedom from edit lists, offline editing and expensive on-line editing time is an artist's dream come true. Because experimentation is such an important part of the creative process, the Flyer allows us to realize

any idea instantly. It's storyboard interface is so easy to use that it virtually *cries out* for the artist to move things around and start experimenting. The limits of creativity and freedom for a video artist are expanded exponentially.

Tools alone, however, cannot make works of art. We, as artists, must find a way to connect with the creative source (whatever you believe that to be). The first thing to try is to start taking risks—and make video that is about *your* personal vision.



After showing *Element* we received \$10,000 in support for the National Endowment for the Arts.

#### **Ten Random Access Ideas**

Here are some tips that might help spark your creative energies:

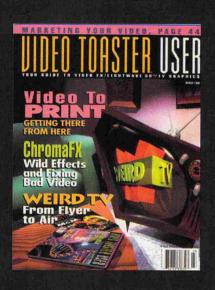
- 1. Stop watching broadcast TV for at least one month.
  - 2. Make a tape that is frightening.
- 3. Temporarily forget everything you've learned about "correct" production techniques.
- 4. Make a tape about something you love (or hate).
- 5. Make a tape in which the images are unrecognizable.
- 6. Shoot with the camera upside-down.
- 7. Make a silent video, then add sound. Do not cut to music.
  - 8. Make a tape about yourself.
- 9. Don't judge or think too much about what you're doing.

VTÜ

10. Play.

Sam Kanter is director of Video Arts at NYC (221 East 32nd Street, New York, NY 10036). Reach him at (212) 684-3304 or on-line at 74041.777@compuserve.com.

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Distance Learning at Chabot College

by Ginger Costa

KCC-TV Channel 15 is an important outreach into San Francisco's East Bay community for Chabot College in Hayward, Calif. The station cablecasts Distance Learning telecourses for college credit and student-produced programs weekdays from 8 a.m. until 10 p.m. During off-programming times, the channel displays an electronic bulletin board featuring ads for the community college's many programs and services. Chabot's

award-winning student-run radio station, KCRH, provides the audio portion of the signal.

In order to achieve a professional presence on the cable

system it was decided to upgrade the entire "look" of the channel. John Williams, the manager of



media services at the College, decided to use NewTek Video Toaster system to achieve this transformation. The primary goal was to overhaul the electronic bulletin board. The new system would ensure a professional look while providing a distinction between Chabot's channel and other stations also using electronic bulletin boards. The Video Toaster provided an elegant yet cost-effective solution to this problem.

#### Rebirth of the Bulletin Board

I was most fortunate to be in on the genesis of this project. Prior to the "rebirth" of the electronic bulletin board, we ran scrolling text on a solid blue background. This was hardly inspiring and had a dubious communication success rate. Overhauling the board would



Figure 1: Video stills of the campus help establish the channel as Chabot College-based.

be a necessary, though monumental undertaking. Few multimedia programs on the market had the depth, flexibility and ease of use I felt could handle a project of these dimensions. When John plopped the Toaster-installed Amiga on my desk, I was captivated. Here was a creative tool that was up for the challenge! Ease of use, flexibility and an abundance of creative tools make the Video Toaster ideal. My background in commercial art was key to the vision of the new look, but the Video Toaster made it possible. I was pleased with the integrated programs, ideal for creative expression and all packed in one video post-production system.

Looking beyond the high-tech glitz you'll find that in it's most basic sense, the regenerated bulletin board is merely a digital slide show. A series of Framestores are looped in a sequence with cuts or different transitions. The advertisements contain three to five Framestores with a run-time equal to the time it takes the average reader to assimilate the text. The Framestores themselves are created with a combination of LightWave 3D, ToasterPaint and video stills. Text is generated with ToasterCG and an invaluable program from InnoVision Technology called MONTAGE for the Video Toaster. T-Rexx, a powerful ARexx scripting program, creates the bulletin board script and runs the sequence in a continuous loop. The signal is taken out of the Program output, plugged into a bridging switcher and wired to a microwave dish on top of our building. The signal is then microwaved to the cable company's head end at a location across town.

As we had no budget for stock photography or footage, everything had to be created from scratch. The bulletin board would need over 300 different images in different styles to create Channel 15's new look. In addition, new ads would have to be generated at the same time. I knew I would have to make every ad as different as possible to attract and maintain viewers' interest. Continuity would be provided by the rhythm of the transitions. The Toaster's flashy digital effects are used to transition between the advertisements. Dissolves are used to transition between frames within the ads themselves. Taking the tips I gained from a Video Toaster User training seminar I attended, I began by shooting video of the campus and using freeze frames as backgrounds to build upon. These were good for showing off the campus as well as helping to establish the channel as college-based (Figure 1). I then shot video of interesting textures found



Figure 2: 3D images attract viewers attention while conveying college information.

around the campus such as the aggregate walkways, patterns in the architecture and landscaping, etc. These stills were then manipulated in ToasterPaint to make really cool backgrounds to lay text over and textures to map onto LightWave objects. I was really made aware, after attending the *VTU* seminar, that just about anything around you can make an interesting background if you fool with it enough. I once shot a buddy's Levi-clad seat, colorized and warped it in ToasterPaint. (Well hey, it was somethin' to do!)

I sincerely appreciated being able to shoot with my camcorder with the immediately ability to dump the video straight into the Amiga/Toaster without additional gizmos or special software.

#### LightWave 3D to the Rescue

Images made with LightWave and ToasterPaint are more time consuming to create but turned out to be the most

popular ads (Figure 2). Computer generated images seem to attract more attention than equally well composed photos (Figure 3). Maybe it's a sign of the times. I was taught differently in my Commercial Art classes many moons ago. I was told then that there is nothing that attracts people more than pictures of other people. However, I have yet to hear anyone walk into the studio and ooh and ahh over people pictures the same way I hear them react to computer-generated images. Toaster Users watching the channel will recognize the many LightWave objects included with the system showing up in various places. In a Flea Market ad, I was able to find a use for all of the furniture objects (Figure 4). The objects are much appreciated not only because they were free but because they worked perfectly in the advertisements I had to create. The Porsche was a perfect advertisement for the Auto Tech classes for example. The computer object has appeared in six different ads from absolutely all imaginable angles (Figure 5). I have also used LightWave objects snagged off the Internet. When you're working without a budget you learn to be very resourceful.

#### **TPaint and Those Vacation Shots**

ToasterPaint has yielded some very good results for me. It's great for coloring cartoon sketches zapped in with a camcorder, and for touching up video stills and LightWave images. Though 3D images provide a sophisticated look, I sometimes find that a quick rendering in ToasterPaint is just as effective. The

"I was really made aware, after attending the VTU seminar, that anything around you can make an interesting background if you fool with it enough. I once shot a buddy's Levi-clad seat, colorized and warped it in ToasterPaint."

image in Figure 6 was drawn up in about 10 minutes in ToasterPaint after three frustrating hours trying to get a similar (though more complicated) rendering in LightWave. The Toaster's paint

drip transition in slow motion, like oozing blood, was the finishing touch that perfected this ad for a local haunted house event this fall.

At one point I started getting desperate for original ideas, so I began using some of my vacation pictures! The pattern in Figure 7 is a street composed of hand carved stones I found intriguing in



Figure 4. Objects included with the system are much subsectional not only because they're free, but because they're usaful too.

Amsterdam. I used the photo as a base to experiment with the "And", "Or" and "XOR" colorizing functions in the paint program. Viewers of Channel 15 have

unknowingly seen pictures of my vacations in Europe, Mexico and the Caribbean. Of course it's not obvious but imagine the irony when paying cable customers turn on their TV only to find several pictures of my hus-

band smirking at them from various tourist attractions. I took photography for several years and tend to take pictures of patterns and textures that catch my eye.

As with video stills, the images are manipulated in ToasterPaint and used to lay text over as well as for textures in LightWave images. I was so pleased by the results that I asked Chabot's other graphic artists and staff members to bring in their vacation photos. My hunch that they also took similar pictures yielded some great textures. Unbeknownst to our viewers, staff excursions and vacation trips have also made secret guest appearances on the channel.

Rocky Robinson, my recently-hired cohort has also contributed several 3D images. Vibrantly colored and simple in construction, his images seem to scream at you demanding your attention (Figure 8)! His work is a welcome addition to the channel providing the variety

we are trying to maintain. (Of course, when he has earned enough service credit to take a vacation he'll be required to bring back a roll of film documenting the flora, fauna, stucco, rock piles, cement cracks and weird dirt patterns he has

seen on his journey. I'm sure that's in his contract somewhere!)

The new incarnation of the Chabot College electronic bulletin board has worked out beautifully. Instructors advertising their classes on the board have been overwhelmingly pleased with the response to their ads. One instructor reported that 30 of the 32 students enrolled learned of the class through seeing the ad on Channel 15. An ad for computer classes generated so many

calls the instructor asked for it to be pulled (Figure 8). I've heard so many great stories like these it's evident that the transformation, made possible by the Video Toaster, is a resound in g success!



Figure 5: The computer object in this image has been used in six separate ads, but looks new every time.



flora, fauna, stucco, rock piles, cement ToasterPaint colorizing using a video still as a pattern.

er to bring their programs to life. Animated titles and Toaster transitions give these shows a professional spark.

Cost was a factor in the decision to

Spot, an interview-

style talk show

both use the Toast-

Cost was a factor in the decision to invest in the Toaster system. Like

most educational institutions, a limited budget constrained the mass communications program from the ability to keep up with current technology. Upon obtaining a grant for production gear, we sought a solution that allowed professional results, while remaining within our budget. The Video Toaster affords the students hands-on experience on a system widely used in the industry, which will ultimately make them far more marketable when they graduate.

Rocky, impressed by the capabilities of the LightWave program, bought the PC version for himself. Many of the animation's seen on Channel 15 were created in LightWave 4.0 on his PC computer. Rocky says he appreciates the flexibility of the 3D system. He also frequently takes the college's Toaster out into the field for on-location production of sporting events, musicals and theatrical performances. The system is used for on- and off-line production in-house as well as production of animated ID's and promos.

In every facet, the Chabot College Instructional Television Facility and TV 15 have received outstanding results from utilizing the NewTek Video Toaster system. There are a wide variety of benefits in using the Toaster in an educational or institutional environment. The features in the system make it valuable as a teaching and production tool. We obtain professional, cutting-edge results while still remaining fiscally responsible.

Ginger Costa is the head of the Instructional Television Department at Chabot College in Hayward Calif. In addition she works part-time for the City of Hayward creating the images seen on the Government Channel bulletin board. Questions or comments may be e-mailed to vpcosta@earthlink.net or call the Chabot College Television Studio at 510-86-6760. The Chabot College Web site is at http://www.clpccd.cc.ca.us/cc/.

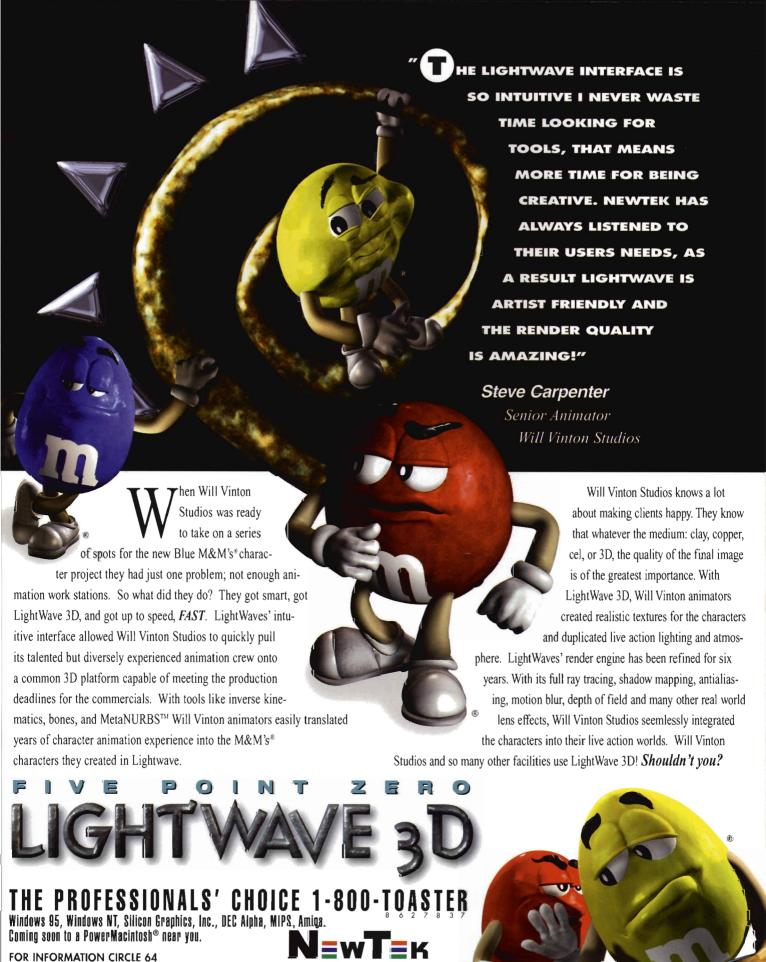
#### The Toaster Goes to Class

KCC-TV's electronic bulletin board wasn't the only project improved by the Toaster system. Chad Mark Glen, head



Figure 6: 2D images created in TPaint are sometimes more appropriate than elaborate 3D images.

of the Mass Communications Department at Chabot, chose the Video Toaster on an Amiga 4000 in conjunction with an Amilink editing system to teach his production classes. His classes produce two weekly programs shown on the Chabot TV Channel, *On Point*, a video magazine-style show and *On the* 



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# The Best Kept Secret

# The Mystery of Prime Image's Magic Box

# by Rick Bertaut

t never ceases to amaze me how little things seem to slip by. We are so caught up in our dayto-day routine that even when you try to stay up to date on the latest new stuff, it is still almost impossible to be aware of everything. And what about the stuff you miss? It may be one little piece of information that could save you hours, even days of work, if only you had known! With tens, if not hundreds of new products being announced each month, how can we keep on top of it all and really know which products are valuable and which ones are not worth the liter-

amazed at how few people know about this product. The product is called the Little Magic Box by Prime Image. OK, so what is it and why do you need it? Well, the Video Toaster/Flyer only has composite in and out, and unless you are only sending the output to VHS, you are not getting an optimal signal out of your video system. Why?

Well, the problem starts with the composite signal. The higher end video formats (that's S-VHS, Hi8, Betacam, MII, and upcoming digital formats to name a few) have inputs and outputs that separate the chrominance (color video information) and luminance (monochrome video information) signals.

> A composite video signal needs to be decoded before it can be recorded to tape. This decoding process results in a minimum 20 percent loss in the clarity of your picture, depending on the quality of the decoding circuitry in you VCR. If you keep these signals separate, you will maintain most of your video signal's quality. The conventional VHS format has only 240 lines of horizontal resolution. This is much less than the 330 lines that current color TV's are capable of. By separating the chroma and luma signals, cross color and dot interference is minimized. But that's not enough.

> In the Y/C signal, the luminance signal bandwidth has been increased from around 3.5 MHz to almost 7 MHz. This results in an over 200 percent increase in peak white level that enhances the picture quality even if you are not recording in a format that keeps the signals separate dur-

> > ing the recording process. This allows for much less picture degradation when editing or dubbing your video. And once the signal gets inside your Toaster/Flyer, there is no visible loss in picture quality or resolution because the signals are processed digitally.

> > But herein lies the problem. How do I get the Y/C output from my VCR into my Toaster/Flyer system? Well, first you will need to have a TBC (Time Base Corrector) that passes video as separate Y/C signals. There are several available including units from Feral, DPS and Prime Image. Then you are faced with the Toaster input dilemma.

This is where the Little Magic Box comes to the rescue. The unit is small,



ature their specs are printed on?

Well, I have found a mind set that helps me stay closer to the relevant information that will serve me best. The key is to network. Network with friends, network with strangers, network at meetings, network with anyone that has a mutual interest and livelihood in video. Out of this comes the information you'll need to know about which products are useful and which are dogs. By listening and not always offering my most humble opinion, I have become aware of things that have saved me both time and money.

### Why / See

This brings me to a discovery that I made several years ago, and I am still

"In tests using both LightWave 3D objects and live video provided by the Y/C outputs of an 800-line JVC KY-27, I found the results just short of amazing."

about the size of two 8 mm video cassettes, and plugs directly into the back of your Toaster. It was originally designed to mount right on the back of a Toaster card installed in an Amiga 2000, but the altered form factor of the A4000 requires you to add short extension cables, which are included.

#### **Inputs and Outputs**

At first glance, it doesn't look like much—just a box with a bunch of plugs and connector sockets with a plug-in wall power supply attached at the end of a cable. It mounts outside the computer, so it doesn't take up a valuable card slot and requires no power from your computer. Upon closer inspection, you notice there are two input connector rows, one for composite and one for Y/C. These feed input signals to the four inputs on the Toaster card. You can connect both sets of inputs and independently select



At first glance, the Little Magic Box doesn't look like much.

which one is used by flipping a very small switch. Along with a composite output connector, there is also a Y/C connector for the program output.

Both are active and do not interact with each other. This allows you to come directly out of the Toaster and record your video with the Y/C component signals and also feed the composite signal to a monitor. Another addition is a 7 pin D connector. This connector transcodes the output signal of the Toaster/Flyer into three component video signals (Y/R-Y/B-Y) used in broadcast formats such as Betacam and MII. This is the highest output signal quality you can get out of the Toaster system short of a digital data transfer along the lines of Sony's FireWire protocol, which is not yet available. The Toaster's preview output is the only signal that is passed as composite since it is not necessary to transcode this output.

#### It's Prime Time

In my research to write this article, I interviewed the president and founder of Prime Image, Bill Hendershot. I have to say he is one of the most pleasant and unpretentious corporate presidents that I have ever met. He offered me more information than I expected in the background on this product.

The Little Magic Box had a very unconventional beginning. It seems that one of the Prime Image engineers came up with the idea that they could offer an optional Y/C output product for the Toaster using some of the technology from other products they had already designed. When Bill heard this, he said, "Go ahead and see what you can come up with," and two days later, the engineer had it done! So they manufactured and started marketing this new product as a companion product to their digital TBC++ product and called it the Y/C++.



A closer look reveals multiple outputs that that separate your Toaster/Flyer video signals.

Well, as many of you know there happened to be another product called the Y/C+ marketed by another company. So, after some calls between lawyers, they realized "who cares what we call it. It's how well it works that will ultimately sell it!" So the name "Little Magic Box" was chosen.

### So Why Hadn't I Heard of It?

Most of Prime Image's products are marketed to the overseas high-end broadcast marketplace. Aside from a PC card style TBC, their product mix consists of rack-mounted Standards Converters, Frame Synchronizers and Electronic Still Store units that bridge the gap between NTSC, PAL and SECAM. These units range in price from \$6,000 to over \$30,000. With these high-priced, high-profit products in their line, they have little motivation to spend marketing money on a product with a street price of around \$650.

#### Let's Get Testy

Aside from setting up a test bench and measuring the frequency bandwidth differences of the system with and without the Magic Box, I really wanted to know if there were any perceivable differences on screen. In tests using both LightWave 3D graphics and live video provided by the Y/C outputs of an 800-line resolution JVC KY-27, I found the results just short of amazing. LightWave graphics with small particles and fine line edges, that without the Magic Box had sections of vibrating pixels, were rock solid with the Magic Box installed. The PictoKey included as a sample CG in the Newtek:CG/frames subdirectory is a perfect example of the detail that causes this annoying pixel dance.

As a subject for the camera source, I chose some clothing with a gray and black crosshatch pattern. When fed directly into the composite inputs of the switcher, I viewed massive amounts of dot crawl and cross-color artifacts making the material look as if it had a rainbow moray pattern of colors across the surface. Feeding the same signal through the Magic Box caused the color patterns to vanish. The fine-line detail in the material became more evident. By using sources with intense graphic detail, the differences in my tests were fairly dramatic.

#### Loss'd and Found

For many, the video you send through your system will not have the detail that made my observations stand out. You also need to have a monitor with Y/C inputs to maintain the signal for viewing. But the bottom line is that this thing works. It cuts signal loss between the interconnections of your Toaster/Flyer system and helps you keep the signal to its highest quality. It adds distributed output to your system, allowing you to connect three different outputs at once, Composite, Y/C and Component. Having been designed in 1993, this is not exactly a new product. But if you haven't heard of it, guess what! It's new to you. The secret is out. You have just found something that will limit your signal loss and improve the quality of your videos without any effort. So if you have a Toaster or a Flyer system, and have Y/C capabilities on your sources, you need this box!

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Free Installation On All Flyer Systems

# The Add-On Roundup

# Fly High With Third-Party Products

by Joe Tracy

he Video Toaster and Flyer together create a very powerful video workstation, but when you add third-party products, suddenly a whole new world of possibilities is opened for your video production needs. Assembled below is a comprehensive sample of third-party products that can be added to your Toaster, Flyer and LightWave 3D to lead you to new horizons. This listing is a preview of products, not a review. As such, the information given contains no personal opinions based on testing. Past and future issues of *Video Toaster User* will contain detailed sketches and reviews of these add-ons.

Product: ImageFX 2.6 Platform: Amiga Price: \$225 Nova Design, Inc. 1910 Byrd Avenue, Suite 214 (804) 282-5868

E-mail ordering and information: orders@nova-design.com

ImageFX 2.6 gives the user hundreds of options for enhancing and filtering images and creating image effects. The program works by itself or in conjunction with a Toaster or Flyer unit to bring hundreds of more



powerful options including blue/green screen compositing. ImageFX also includes a number of real-time painting tools. It also allows loading and saving of Toaster Framestores and Flyer Clips. The upgrade has been called "totally Toasterized." Nova Design has also

issued a recent statement of commitment to the Amiga platform saying, "While some companies have chosen to abandon the Amiga, Nova Design continues to prove that it is committed to the Amiga with its success in providing innovative and new software for Amiga users around the world."

Product: LogoWizard for LightWave 3D Platform: Intel and Alpha Price: \$299.95 Intel and \$399 Alpha International Software Engineering 57 Highway M-35 Neguanee, MI 49866 (906) 475-4713 E-mail information: ise@up.net

LogoWizard has been called "The most powerful flying logo and scene file creation tool available for LightWave 3D on the PC." It includes 20 predesigned animations, a step-by-step, make your own animation

Wizard. direct logo motion controls, layering, explosions and much more including the ability to create cool fireworks animations. also comes with 300 objects that you can use separately from LogoWizard, if desired.



Product: WaveNet Pro 1.0 for LightWave 3D Platform: PC

Price: \$399 - \$749 depending on Nodes. ATR Solutions, Inc.

(800) 248-8407

E-mail information: atr@atrsolutions.usa1.com

WaveNet Pro is a replacement for the LightWave ScreamerNet Panel and is a separate application that can be run without LightWave, freeing it to create new scenes. One of the biggest features of WaveNet Pro is its ability to actually physically page you if it encounters a network problem while rendering. Other features include rendering backwards, detailed node information, completion time estimates, time logging, and schedule renderings.

Product: Audio Black Box TM Platform: Amiga Flyer Price: \$52.95
ProWave 7950 Highway 72 West Unit G102
Madison, AL 35758
(800) 930-2646
E-mail information:
ProWave@aol.com

The Audio Black Box allows Amiga Flyer users to load common audio formats and reformat them as audio Flyer Clips. Clips can be



loaded at any sampling rates with AIFF, AD516, WAV, VOC, AU, RAW and IFF formats.

Product: Composite Studio Pro Platform: Amiga ToasterPaint 1.0 - 4.1 Price \$169.95 Dimension Technologies 1156 West 8th St. Erie, PA 16502 (814) 454-4483

Composite Studio Pro gives you the ability to do some advanced and automatic TxMapping effects. It provides you with a number of items like hearts, stars and diamonds, allowing you to place images inside of them. Soft-edged shadows can also be added. The process is taken a step further by allowing animated sequences of your images and batch processing.



Product: Wipe Studio Platform: Amiga Toaster/Flyer Price: \$199.95 Dimension Technologies 1156 West 8th St. Erie, PA 16502 (814) 454-4483

Wipe Studio allows Amiga 2000 and Amiga 4000 users to create wipe effects for the Video Toaster and includes a program called EZ-Converter that converts 3.1 wipes to 4.1 wipes. The program is enhanced when Dimension's Power Module (\$99.95) is added allowing wipes with 240 colors and a high resolution. It also helps to create loop, overlay, and vignette wipe styles. Video Jumpstart a video which guides you quickly through the creation of your first wipe is included.

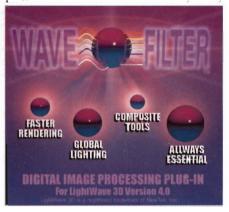
Product: Club Toaster Platform: Amiga Toaster/Flyer Price: \$150.00 Dimension Technologies 1156 West 8th St. Erie, PA 16502 (814) 454-4483

Club Toaster is a year long subscription to a monthly CD that contains objects, images, animations, moving backgrounds, wipes, brushes, Framestores and Flyer audio clips. Everything on each disk is royalty-free. Each disk also contains a special news/interview section, usually containing an audible interview with an Amiga or NewTek official. While the content of each CD has dwindled in size since its inception, you still get quite a bit for the monthly price.

Product: WaveFilter Platform: Intel and Alpha Price: \$179.95 Unlimited Potential, Inc. (800) 758-4462

WaveFilter is a plug-in for LightWave 3D that allows faster ren-

dering through special anti-alias speed functions. It also allows global lighting and has a series of composite tools like RGB controls, blur,



depth of field blurring, contrast, brightness, chroma, luminance and gamma functions.

Product: Toaster Tester Platform: Amiga Price: \$169 Y/C Plus, Inc. 310 SW 6th Ave. Topeka, KS 66603-3109 (800) 578-1700

While not software, this fairly new hardware item deserves mentioning because of its potential solution to Amiga 2000 and 4000 Toaster owners who get a "Toaster Not Responding" message on a frequent basis. What



this card does is calibrate the Toaster within 10 Hz of the Toaster's Crystal Oscillator, successfully solving most problems associated with "Will Not Genlock" and "Toaster Not Responding" messages. It also checks the Amiga's power supply (with the ability to check a PC power supply too) and comes with an instructional video tape.

Product: Various LightWave 3D object packages
Platform: Amiga or PC
Price: Varies from \$45 - \$195
Replica Technology
4650 Langford Rd.
N. Collins, NY 14111
(716) 327-0621

Replica Technologies puts out a number of LightWave 3D object packages like the Interior Design



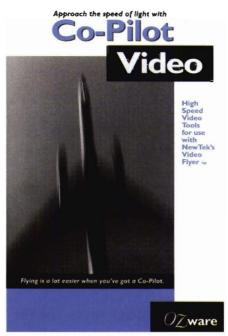
Collection, the Wright Collection, the Camelot Collection, Homes, and Interior Construction. Most of the specialized sets contain over 100 objects and some over 300.

Product: CoPilot Master, Audio and Video Platform: Amiga Flyer Price: \$129.95 CoPilot Audio and Video OZware 21230 Meadow Lake Rd. Snohomish, WA 98290

(360) 805-0148

OZware ARexx scripts became famous with the free inclusion of some audio sample scripts with Flyer 4.1 software. CoPilot Audio has a series of scripts that help craft and polish the audio portion of Flyer projects. The scripts include a wide variety of mixing styles, including the ability to automatically lower background music over narration. It can also automatically dip your music under clips with recorded audio. Also included are many scripts for cross-fading, locating, trimming, marking, blending, and linking.

With CoPilot Video you get many tools that aid in editing, archiving and controlling Flyer clips. Such



scripts include the ability to sync audio with video, leap between scenes, create automatic projects, find wasted footage, render multiple CG pages and much more.

Finally, the CoPilot Master, which is slated to be released soon, has the ability to trigger the routines of CoPilot Audio and Video automatically and also replaces the Flyers interface for certain styles of edits. It will also be very responsive to live presentations. Stay tuned to *VTU* for a detailed update/review upon its release.

Product: The Control Tower Platform: Amiga Flyer Price: \$249.95 Visual Inspirations 809 W. Hollywood Tampa, FL 33604 (813) 935-6410 E-mail information: visual@cyberspy.com

The Control Tower has over 200 macros built into the software, including compositing and multi-layering of clips, picture-in-picture and CG record overlay. If you have ImageFX, there are hundreds more scripts for processing Flyer clips. The Control Tower even allows you to do powerful video production techniques like blue screening.

Product: Decision Maker Platform: Amiga Flyer Price: \$399.95 Visual Inspirations 809 W. Hollywood Tampa, FL 33604 (813) 935-6410 E-mail information: visual@cyberspy.com

Decision Maker works hand-inhand with the Flyer and is designed for batch digitizing. It controls your VCR from its own screen and allows you to digitize clips with an edit decision list.

Product: Flite Gear Platform: Amiga Flyer Price: \$229 Atomic Software P.O. Box 9201 Salt Lake City, UT 84109 (801) 466-7330

Flite Gear allows batch digitizing, tape logging, cataloging, and special effect clip recording. It utilizes a Flyer edit decision list interface and output. It also has a project restore function.

Product: Flite VTR Platform: Amiga Flyer Price: \$219 Atomic Software P.O. Box 9201 Salt Lake City, UT 84109 (801) 466-7330

Flite VTR uses on-screen controls to allow the user access to video tape footage on the VCR for digitizing to and from the Flyer. It can also plug into Flite Gear and work with it to log, digitize and restore projects. You can also purchase Flite POD (\$599) which is a precision remote shuttle pod allowing you to shuttle through VCR footage to mark in- and out-points and perform split edits.

Product: WaveMaker 2.0 Platform: Amiga Price: \$249.95 Radiosity Software 3970 N. Victoria St. Shoreview, MN 55126 (612) 434-7771

WaveMaker 2.0 uses LightWave 3D to create eye-catching and professional-looking flying logo's. It has an easy-to-use interface and according to Radiosity Software, it is perfect for people who have little to no experience with the Amiga LightWave 3D. It comes with some pre-built animations and the ability to make your own.

**Product: Scene Machine** 

Platform: PC Price: \$199.95 Radiosity Software 3970 N. Victoria St. Shoreview, MN 55126 (612) 434-7771

Scene Machine for Windows comes on a CD-ROM packed full of cool elements and pre-rendered background images to allow the user to easily create flying logo scenes. The program was written by Tony Stutterheim, the same programmer of WaveMaker and has many similar features.

Product: MacroForm 2.0 Platform: Amiga, Intel and Alpha Price: \$275 Amiga - \$350 PC One and Only Media P.O. Box 218 Vauxhall, NJ 07088-0218 (908) 964-4546 E-mail information: oaomedia@chelsea.ios.com

MacroForm 2.0 integrates directly with modeler using 20 powerful modeling and working with MetaNURBS, Metaforms and spline patching to increase productivity. MacroForm has tools to satisfy the artist, industrial designer and 3D producer alike. Every tool works in creating the most challenging 3D models and allowing beginners and professionals to model with ease in LightWave 3D modeler.

Product: ProVisualFX
Platform: Amiga LightWave 3D
Price: \$199.95 per volume (two
volumes)
Visual Inspirations
809 W. Hollywood
Tampa, FL 33604
(813) 935-6410
E-mail information:
visual@cyberspy.com

Utilizing an easy to use interface, ProVisualFX opens up requesters on your LightWave 3D screen and walks you through the process of using the effect transitions. Two professional animators, Leo Martin and Mark Thompson were hired to create the effects taking two Flyer clips and creating a 3D transition between them. This also works with the standalone version of LightWave 3D.

Product: Corporate Video Backgrounds Platform: Multi-platform Price: \$199.95 Visual Inspirations 809 W. Hollywood Tampa, FL 33604 (813) 935-6410 E-mail information: visual@cyberspy.com

Award-winning TV artist Guy Bickel has put together a collection of 250 various backgrounds that can be used with any paint package and also directly with the ToasterCG and ToasterPaint. These backgrounds are perfect for placing text and brushes on top.

Product: Batch Factory Platform: Amiga Price: \$79.95 Visual Inspirations 809 W. Hollywood Tampa, FL 33604 (813) 935-6410 E-mail information: visual@cyberspy.com

Batch factory is a compilation of ARexx scripts that work with the Amiga computer, including all versions of the Toaster. It has over 600 scripts including scripts for the Switcher, ToasterPaint,

LightWave 3D and Modeler. Batch rendering, image processing and compositing is only a few of its many capabilities.

Product: Sparks
Platform: Intel, Alpha and Amiga
Price: \$249.95 Intel, \$299.95
Alpha and \$179.95
Amiga
Metro Graft
625 Newton Drive
Lake Orion, MI 48362
(810) 693-5134

Sparks is a plug-in for LightWave 3D that creates incredible particle effects. It features ultra fast physics simulation and has a collision detection system to avoid unwanted collisions. Effects include wind, turbulence, gusting and swirling. The program also allows you to create water, fire, smoke, comets, fireworks, wants, rocket trails, explosions and splashes. Metro Graft also has two other programs you can inquire about—FiberFactory and MotionMaster.

Product: Navigator Platform: Amiga Flyer Price: \$99 Token Video Productions 10980 180th St. E. Hastings, MN 55033 (612) 437-1708

"There are literally dozens to hundreds of more third-party programs worth looking into like LightRom3, LightSpeed, PolyForm, PixelPro, ADPro, Citybuilder, Hollywood FX, PowerMacros, Radan and Alpha Paint "

Navigator, for the Video Toaster Flver, is a series of eight powerful and easy to use programs that run from Toaster's main Switcher interface. The programs allow multiple overlay effects, CG pages over effects, keying of graphics or titles over video, no waiting for titles, automatic project building, instant global duration settings for Framestores, Automatic in/out settings. and quick audio tools for lengths and fades. Token is also working on series

updates and products that will compliment the Navigator scripts.

Prices on each product are subject to change. There are literally dozens to hundreds of more third-party programs worth looking into like LightRom3, LightSpeed, PolyForm, PixelPro, ADPro, Citybuilder, Hollywood FX, PowerMacros, Radar and Alpha Paint. The best source of information to keep updated on these products and future releases is Video Toaster User. We receive detailed information from these companies on current and upcoming projects to pass along to you.

Joe Tracy is the editor in chief of Video Toaster User. Reach him at jtracy@main.rosenet.net.

#### EDITORIAL EVALUATION

Circle number on Reader Service Card I found this article:

Very Useful Useful Circle 051 Circle 052 Not Useful

# **All That Jaz**

# Can Iomega's JAZ Drive Pass the Flyer Test?

omega's JAZ drive has been touted as a small miracle in a box, allowing users affordable and portable storage for just about anything you can imagine. But can the JAZ drive pass the Flyer test? I couldn't wait to find out.

### Just Like Christmas

Quick, open the box! The Mac version of the JAZ drive looks sturdy (and the color is not bad either). It even came with its own SCSI cable, a 25 to 50 pin HD converter and a 1 GB disk. I am impressed! This may just prove to be a straightforward connection with my trusty old A2000 Flyer after all. And it was.

The Iomega engineers did their homework when they came up with this device. The portable unit runs on universal input auto-switching 100-240 VAC 50/60 Hz, has an operating acoustical noise level of less than 42 dbA, and its SCSI termination is automatic and/or switchable. The unit's dimensions are 8" long, 1.5" wide and 5.33" high, and it weighs only 2 lbs. Iomega also claims a MTBF of 250,000 hours and gives the disks an estimated shelf life of 10 time of 12 milliseconds, an average sustained transfer rate of 5.51 MB per second, rotational speed of 5,400 RPM, buffer size of 256 K read/write, and an average stop/start time of 10/5 seconds, the JAZ drive may be your answer if you require a fast removable storage device.

The JAZ drive can be used as a boot-up device for your

Amiga or any other computer you may happen to have on your desk, allowing you to expand your system's storage capacity with practically no limits, as long as you are willing to spend \$100 for each and every 1 GB disk. This device also makes it a snap to

perform quick back ups, in case the dreaded catastrophic hard drive failure occurs.

"The JAZ drive can be used a

boot-up device ... allowing you to

expand your system's storage

capacity with practically no

limits. This device also makes it

years. With an average seek time of 12 milliseconds, an

in case the dreaded catastrophic

hard drive failure occurs."

#### Crash Test JAZ

That's all well good and for the average guy, but what about us Flyer users? Can it handle our stressful requirements? In a nut shell—yes and no. But before we start, please let me say that I have written this article in layman's terms so experts, please forgive me. My objective is to provide all *VTU* readers with concise directions for connecting and correctly using the JAZ drive with a Flyer system.

by George Paramithas

Parroting the specs is one thing, but testing is quite another. So, in order to allow this new marvel to prove itself. I first tested it as an audio drive. I installed the JAZ as the last external drive on my Flyer audio SCSI chain C, gave it ID address number 6 and terminated it. I then powered up my Amiga and double-clicked icon DH3 which is the partition that contains my workbench. Then, I double-clicked the Storage drawer and again on the DOSDrivers drawer. DOSDrivers drawer contains all of the device drivers. The device drivers used by your system have to be placed in the Devs drawer/DOSDrivers directory. The Amiga then can recognize and will display device icons on the workbench screen.

Since I set the JAZ drive to

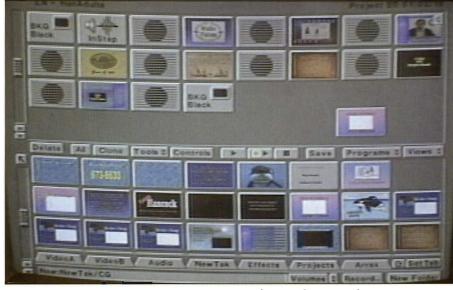
ID 6, I simply dragged the FC6 icon from Storage/DOSDrivers drawer to the Devs/DOSDrivers drawer. Then I closed all open windows and rebooted my system. The next step was to open the drive where the Toaster/Flyer software resides. in my case DH4. I doubleclicked the NewTek drawer and the programs drawer. It contains a utility called Flyer HDTools. Double-clicking this icon produces a list of all the Flyer drive names, corresponding firmware revisions and size/capacity of the devices connected to the two video and one audio Flyer SCSI chains. Lo and behold, the JAZ drive was there! My system had a new entry called "C6 iomega jaz 1GB G.60 Flyer C6." By highlighting the JAZ drive line and clicking the button called Format Options, a new window appeared allowing me to choose the following:

New Volume Name: Flyer C6 Format Volume for: Audio

Short Stroke: None

"The bottom line is, if you need an audio drive for your Flyer NLE system, or an extra drive for storing Framestores or Flyer stills, and would like the benefit of removable media ... lomega's JAZ drive could fit the bill."

workbench screen titled "Flyer C6." The same drive also appeared in the project/file menu of the Flyer screen.



By clicking the format button, the Flyer proceeded to make the JAZ drive a Flyer specific audio disk. After rebooting my system, there it was—a new icon on the Making the Grade

My first attempt at using the JAZ as an audio clip storage device was successful. Every audio clip I dragged to it played without any problem whatsoever! I really

wanted to *push* the drive, so I decided to drag a Flyer video *still* to it. It stored the still properly and—drum rolls please—it played back without dropped frames or any other form of nastiness!

Well, I thought, let's see what you can do with an HQ5 video still. No problem there either. I could not believe it, but there it was right before my very eyes. And that's were the Jaz drive's performance decided to go belly-up. From there on out, the more video clips I dragged to the disk, the less robustly it behaved. I should have known better than to have unrealistic expectations

Back to the drawing board, I thought. I'll just format it as an audio/video drive so I can test its true capabilities. Easier said than done. When running the HQ5 test utility, the drive did not advance beyond the first few sectors. It locked up my A2000 and even the Left

Amiga b keystroke, recommended by NewTek, did not work. I had to finally perform a soft reboot in order to get up and running again. I performed the same test one more time in order to make sure nothing freaky had occurred the first time (after all it was 5:30 Saturday morning), and I got exactly the same results.

So much for all that JAZ from Iomega about the drive being faster than most hard drives in today's market and about it's ability, and I quote, "to perform digital editing for audio and video." It can, just not for HQ5 Flyer quality video.

Next I formatted the JAZ in the audio/video mode. I started the Flyer and recorded directly to it in HQ5 mode. (I couldn't help it, I had to rub it in!) It stopped recording with the known message: "Error, Flyer dropped fields while recording. Drive may be too slow for this quality mode." That pretty well sums the JAZ's video performance. For the sake of being thorough, I also tested it under both the Extended and

All That JAZ continued on page 56

# **Totally Text-ured**

# Unique Titles With Images and Textures

# by Steve Easley

recently used a CG package for the Macintosh that allowed the text color to be replaced (if it were black) with a background image of my choice just by clicking a button. This is great, because I could texture the text to make it unique. Then I wanted to do the same effect for a project I was working on with the Flyer, but the answer was not as straightforward as clicking a button. Here's how to do it.

The first item you need is a Framestore or IFF image



Take the text into CG to add borders and shadows.

of the texture you want on the face of the text. The best and cheapest way to get a variety of textures is to videotape them. One weekend, I went around and videotaped every texture I could find: carpet, ceilings, wallpaper, concrete, bricks, dirt, sand, etc. It was easy and I was amazed by how many textures I found once I started looking for them. I made some shots very out of focus and some with extreme close-ups. When I need a new one, I just go through the tape, grab a frame and place it in my "backgrounds" directory on my Work drive. If you don't want to go this route, you can buy CD-ROMs with different textures. For this example, I'm using a nice sandstone background.

#### **Here We Go**

Load the background into TPaint. The first thing I always do to a background that I am going to add color to is get rid of all of its original color. To do this, choose the color white, and go to the Colorize mode

or (4) on the keyboard. Then hit (w) to affect the whole screen. This replaces all color with white, in effect making the image colorless. Now there is a choice to be made. If you want to make the text a solid color, stay in the Colorize mode. For example, if you wanted the text to be blue, pick the shade of blue you like, go to the Transparency/Warping control panel (F1), set your transparencies (both the Center and Edge) to 50% or so and hit the (w) key to fill the entire page. If, however, you are going to do a color range, you'll have to do a little pre-planning. (Please refer to the side bar, page 52.)

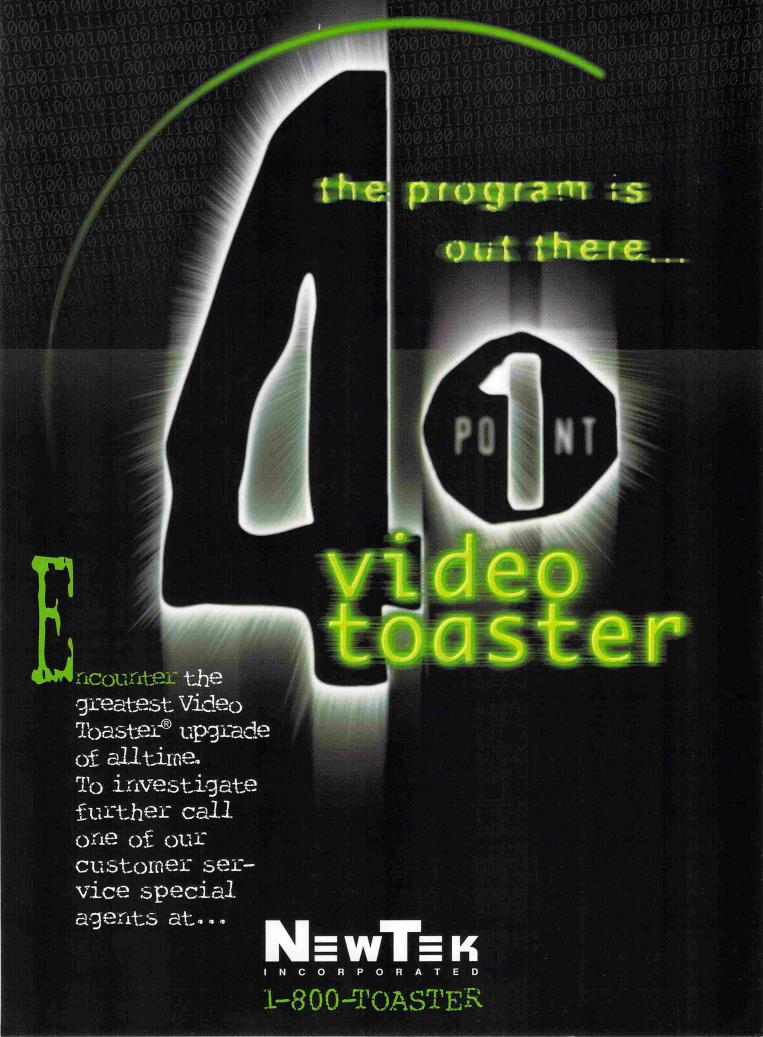
Now, go to the swap screen, or (j) on the keyboard, and change to the Rub Thru mode (5). Go to the text requester (F2), and load the font you want. I'm using Olinova Extra-Bold Italic in the B&P Graphics folder. Type in your text. Resize and reshape it as you like. When you are ready, create the brush and stamp it down on the screen. (Remember to reset your transparency levels back to 0%). As you'll notice, the text shape has rubbed the swap page through to this one. If you wanted, you could stop here and incorporate the text into a Framestore. However, we are going to take this one step further.

#### Into CG

Right now, the text looks decent, but it is flat. In TPaint we cannot easily add shadows and borders, so we need to take the text into CG. The only way to do this is to make the textured text a brush. To do this, click any tool in the Tools window. This will "drop" the white text brush that we have been using. Now, select the scissors, (b) and hit Redo (a). You have just picked up the textured version of the text we have made. Now save the brush (shift+o) and give it a name.

Now, go into CG and select which type of CG page you want. Note: A brush can only be used on a key page or Framestore page. Click on the "+ Brush" button to load the brush. The Toaster:Brushes folder comes up as the default. TPaint's default for saving a brush is in Newtek:Images. So if you saved the brush in the default folder in TPaint, click the Parent button and select the Images folder. You should then find the brush that you saved. Double-click it and it will be loaded into CG's font menu. Click anywhere on the CG screen. Go to the font menu button and scroll down until you find the text brush. The brush will appear on screen.

You can now go to the Palette menu and adjust its





To add color to a background, first get rid of all of the original color.

shadow and border as you would any other font. The greatest part is that they work perfectly with the edges of the text, even though the brush appears to be a box in the CG screen. You can add drop shadows or cast shadows in any direction and any depth that CG offers. Even though you cannot give the shadow the same texture as the text, you can give it a 3-D appearance. Just make the shadow color a darker version of the text face. For example, if the text color is Red=0, Green=0, Blue=150, make the shadow Red=0, Green=0, Blue=75. You may have to go back to TPaint to get the exact color values you used.

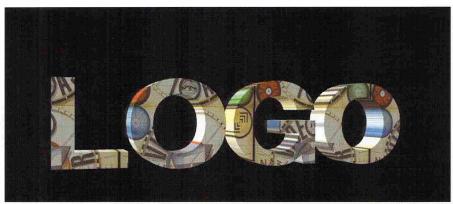
Play around with these technique. You can get some great results. For some really wild effects, do a color Range when you stamp down the brush. The Range uses the edges of each letter to decide where the center and edges are. Keep in mind that if you do a color range on the background, you can make the range in any direction. Also, try images like clouds or mountains as the font face. The results might be just what a client is looking for.

#### The LightWave Version

If you don't have LightWave-aphobia, you can achieve a similar result there. Processing the text in LightWave 3D does have the benefit of the text truly appearing three dimensional, but the down side is that it takes a little work to use the rendered text as a brush. To start, fire up LightWave and go into Modeler. Click the Text button toward the bottom-left of the screen. A font requester will appear similar to the one in TPaint. Choose the font you want, type in the text and let

LightWave generate it. You will notice that the text appears in the bottom left window of Modeler. It is also in the top-left and bottom-right, but all you can see right now is a line because the text is only two-dimensional. On your keyboard, hit the (a) button. This will center the text in the view screens.

Next, click the Multiply button at the top of the screen. A new column of buttons will appear on the left. Click the Extrude button. To perform the extrusion, first click the bottom left screen, (face view), to indicate that you want to extrude on the zaxis. In the top-left screen (the top text, you need to make sure that the image you will be using is not a Framestore. LightWave cannot use Framestores within the program. To get around this, load the Framestore in Tpaint and save it as an RGB. LightWave can use RGB images. Now, back in LightWave, click the Images button and load the image you want to use and click Continue. Then, click on the Surfaces button. To the right of the Surface Color requester is a small button labeled "T." Click this button. Click the Texture Image button and select the image that you want. Below that are Texture Axis buttons. Click the z-axis button and hit Continue.



It takes a little work, but processing the text in LightWave 3D can give you some great results.

view), a yellow line will appear. This line indicates how much depth the text will have. You can move this line with the mouse. I recommend moving the line to about one-half of one square, then hit Return to perform the Extrude. Click the Objects button and then the save button to save the text.

Now, go into the Layout screen. Click Objects, then Load Objects. Find the text object you just created and hit Continue. Click the Camera View on the left side of the screen. The text should be centered in the screen. By selecting the object, you can move and rotate the text using the buttons on the left and by dragging the mouse. After positioning the text where you want it, click Create Key and hit Return. This will keep the text in that position when you render the screen. If you rendered the screen now, the text will be white. We now need to put the texture on it.

Before we put the texture on the

and Continue again in the Surfaces pop-up menu. You have just textured the text. Now you need to set up LightWave to render the image.

Before you render, go into the Record Panel menu and set the Render Display to Video Toaster. Set the Anim Type to Medium Resolution Preview. Click Continue, then the Camera button. Set the Anti-Aliasing to Low and hit Continue. This will make sure that the text will not contain jaggy edges. Now, click (F9) to render the image. After a few minutes, you should see the textured text. To use this text in CG, you must first go into TPaint.

Go into TPaint and grab the image you just rendered. Next, go into the Color menu and click the Pick Color button. The mouse pointer will turn into an arrow. Now, select an area of black in the image. In the Options menu, select No Background. Then in the Tools menu, select the rectangle tool, the solid button and the scissors



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Try surfaces like clouds or mountains on the font face. It might be just what your client is looking for.

tool and create a rectangle around the text. By selecting the No Background option, you eliminated all the black around the text. You can now save this as a brush to use in CG like the TPaint text we created earlier.

You can use either one of these methods to create truly stunning visuals!



We look forward to the day

when digital video creators

can utilize removable media

to transport large video

and audio files-

Reach Steve Easley at Worthington Voice Services, Inc., 651-F Lakeview Plaza Blvd., Worthington, OH 43085.

#### EDITORIAL EVALUATION

Circle number on Reader Service Card I found this article:

Very Useful

Circle 057

Useful

Not Useful

# At Home On The **Color Range**

If you want your text to have a range of colors, you do not want to perform the range on the entire background screen. If you do, your text rub-thru is only going to get part of the colors. For the range to look correct, you need to color only the area that your text is going to occupy or just a little bigger. You will have

to do a little planning to do this. It's best to get the size of the text that you want and stamp it down to see how much space it is going to occupy. Then, jump to the swap page and make your Color Range about the same size. Stamp your text within that colored area on the swap screen, hit undo, jump to the other screen and hit redo. Your text has now correctly rubbed thru the entire color range spectrum. YTU

#### All That JAZ continued from page 51

Standard modes, both of which produced unacceptable results. Under these two modes, the JAZ did not stop recording as it had done on HQ5, but after cutting the clips—let's just say the playback

was video from bell!

The bottom line is, if you need an audio drive for your Flyer NLE system, an extra drive for storing Framestores or Flyer Stills, and would like the benefit of removable media for your everyday work with your computer,

Iomega's JAZ drive could fit the bill. Is it cost effective when compared to permanent hard drives of the same capacity and capability? No. But it does allow for easier transportation. Another thing to keep in mind is that the JAZ disks themselves are not as hardy as I would have expected, so properly storing them in their cases during transportation is a must. And do not—I repeat—do not transport the drive with a disk in it. Little plastic parts tend to break off easi-

> ly if the drive, disk or both are dropped. (For you inquisitive types, I felt that I had to perform a drop test for the sake of the VTU readers. ... Well, that's my story and I'm sticking to it!) At \$100 each, the reliability/maintainability of the JAZ disk did not impress

Also, be warned: When loading a Framestore or playing back a Flyer project with JAZ-based clips, your system will take longer to perform its assigned task. For example, it took seven seconds to load a Framestore from the JAZ drive where it only took close to three seconds to load the same Framestore from my Quantum Atlas drive. Are you listening Iomega? You're gonna have to do better if you want to earn the Flyer user's respect and business.

We look forward to the day when digital video creators can utilize removable media to transport large video and audio filestill then the IAZ drive comes close. See you fellow Flyers Toasterites soon!

George C. Paramithas is an electrical engineer by day and a videographer when his time allows. He founded Paramedia Productions, a company that produces educational and corporate videos. He is located in Huntsville, Ala. and can be reached by telephone 205-772-9428 gparamit@colsa.com.

#### **EDITORIAL EVALUATION**

Not Useful

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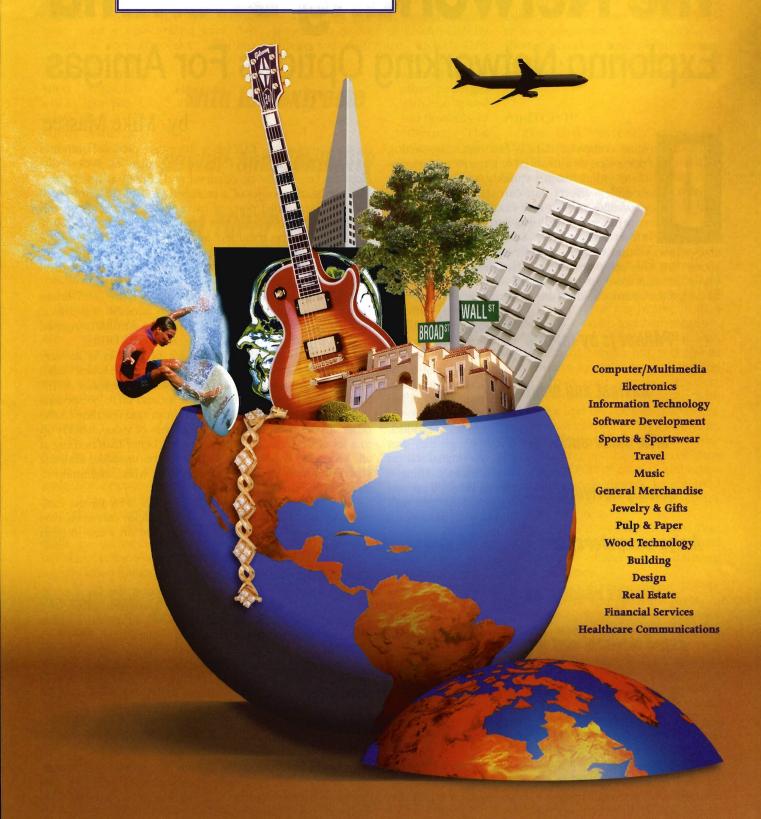
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described below.

The next step up is to actually share hard drives and devices from one computer to the next. If you have an Amiga and a Windows NT system, you can get a freeware program called SAMBA that will allow you to share drives with the Windows machine using Windows NT's built in networking software. This is of great benefit to LightWave users who have purchased powerful NT machines to accomplish their rendering and use the Toaster and Flyer to output their animations.

Furthermore, AmiTCP/IP can run simultaneously with other protocol stacks such as ENLAN-DFS, for more networking flexibility. You could run ENLAN-DFS to network your Amiga drives together, while running SAMBA to share both Amigas with a Windows NT workstation.

Many graphic artists use Photoshop on the Macintosh. A company called Farallon publishes a comprehensive networking interface called Timbuktu that seamlessly integrates PCs into AppleTalk networks. PCs can then share Macintosh drives, printers and more. I am not aware of any Amiga to Macintosh drive sharing utilities at this time, beyond the FTP approach mentioned above.

In conclusion, there are many Amiga networking options, some which will benefit your situation more than others. Choose your options carefully, taking into account flexibility and expansion needs in the future.

#### **Company Contact Information**

PARNet and PARBench are in the public domain. They can be found on BBS's and on the Internet, on the "Aminet" group of FTP sites, the latest Aminet CD-ROM, the Amiga Zone on Portal, and in the Fred Fish collection of shareware and public domain software.

Various Amiga dealers will sell you pre-made PARNet cables, otherwise you can build one from a parallel cable with supplied directions.

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Mike Massee is a Computer Animator and Graphics Artist at Fat Box Inc. in Redwood City, Calif. He may be reached at harlock@raindrop.com or http://www.raindrop.com/.

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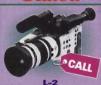
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702 □ Mass Storage

706 □ Video Cameras

707 □ Stock Footage/

Accelerations

Music Libraries

703 U Computes 3,7,1...

Accelerations Music Libraries
704 Monitors 708 Video Accessories/Supplies
B. Which trade show do you plan to attend?

B. Which trade show do you plan to attend?

101 NAB '96

103 Video Toaster User Expo '96

104 COMDEX Fall '96

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702 Mass Storage 706 Video Cameras
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# Panasoni

**Broadcast & Television Systems** 



**AG-456** 

#### 2-Hour S-VHS Camcorder

- S-VHS system records and plays over 400 lines horizontal resolution
   Now includes manual zoom control
   Laminated amorphous heads assure exceptional picture quality, high resolution,
- superb color reproduction, and high signal-to-noise ratio
- 12:1 power zoom lens with continuously variable speed zoom
- . Hi-fi stereo and linear track for recording. Also has "Audio Out" select switch for Hi-fi/Normal/Mix combinations
  High performance stereo zoom microphone features three different settings
- Wide, Telephoto or automatic zoom.

   Built-in VITC (Vertical Interval Time Code) time code generator gives absolute address to each frame of video

# for frame accurate editing (with specific edit systems) AG-EZ1

# **3-CCD Digital Camcorder**

In addition to it's state-of-art DVC recording system, the AG-EZ1 also features a three-CCD image sensor, 180,000 pixel color viewfinder, 10:1 power and 20:1 digiral zoom, full auto and manual controls and a large LCD panel.

- Three CCDs with 270,000 pixels each are horizontally stag-
- gread for optimum resolution.

  Digital recording system delivers incredible 500 lines of horizontal ysolution and virtually no noise. Signal -to-noise is 54dB, an improvement of 6-9 dB over conventional analog systems. This represents a S/N ratio 2-3 times better than existing a systems. existing camcorders.
- Audio is also recorded digitally for quality that rivals CDs. You Adult is also recorded digitally for idealing that havins costs of can choose between two-channel 16-bit recording or two sets of 12-bit stereo, with the second set for uses such as narration. Magnified 180,000 pixel color viewfinder tilts 120° vertically
- for shooting from high or low angles, and its professional size means you don't have to press it against your eye to see the
- Variable high speed shutter goes from 1/60—1/8000 of a sec-



- · Digital Electronic Image Stabilizer (DEIS) compensates for jittery video and is very effective when the digital zoom is employed.
- Equipped with 10:1 power and 20:1 digital zoom lens. Both zooms are adjustable in four speeds (3.5 seconds—15 seconds) based on how hard or soft the zoom toggle is pressed. To set up a shot quickly, a Turbo Zoom function moves from tight to wide angle, or vice versa, in under two seconds. For extreme close-ups the lens can
- focus up to 1/4 inch from the subject.

  Digital Photo-Shot let's you record a still-frame for about six seconds, while audio continues as normal. This feature is great for creating video photo albums as 290 still pictures can be recorded
- or a single 30-minute tape and 550 shots on a 60-minute tape.

  Using the TopScan feature any shot can be found easily.

  Large LCD panel on the side of the camera displays camcorder status and operating modes.

# **AG-DP800H**

# **UPERCAM**

## S-VHS 3-CCD Digital Signal Processing Camcorder



- Three high-density 380,000 pixel CCDs with half-pitch pixel offset achieves over 750 lines of horizontal resolution, a S/N ratio of 60dB and remarkable sensitivity of f8 at 2000 lux. Additionally the Frame Intertine Transfer (FIT) CCDs minimize vertical smear, so you maintain
- impressive picture quality even in very bright illumination.

  Digital Signal Processing circuitry provides four valuable benefits

  1) Consistently reliable up-to-spec performance.
- 2) Fine adjustment of a wide range of parameters
- 3) Memory storage and instant recall of specific settings.
  4) More flexible and higher quality image processing, as well as easier maintenance
- . Some of the DSP circuits and their functions:
- CHROMA DETAIL This function compensates for poor resolution in the high chroma areas of the picture.

  DARK DETAIL Determines optimum degree of contour enhancement in dark areas to deliver crisp, natural-looking images
  HIGHLIGHT COMPRESSION Expands the dynamic range of the highlighted areas and prevents halation. The highlight com-
- HIGHLIGHT COMPHESSION Expands the dynamic range of the highlighted areas and prevents hatation. The highlight compression circuit allows a wide dynamic range producing detailed images even against bright backlight or daylight.
   FLARE CORRECTION CIRCUIT Compensates for unsteady black caused by light or by a subject's movements.
   Six Scene File modes. There are two user modes for custom digital parameter settings including Horizontal Detail, Vertical Detail.
   Chroma and Dark Detail, and Color Correction. The four preset modes are normal, fluorescent, special and sparkling.
   In addition to regular AGC (Automatic Gain Control), Supercam has a Super High Gain mode. At F1.4 this enables shooting under
- illumination as low as 2 lux while retaining detail and color balance.
- Synchro Scan function allows flicker-free shooting of computer monitors. Electronic shutter increments can be set variably from
- Built-in internal time code generator lets you record with SMPTE LTC/VITC (Longitudinal/Vertical Interval) time code
- oun-minimum time code generator uses you record with SMPTE LICYTITE (conglitudinal/Vertical interval) time code
   Two hi-fi stereo audio channels with a dynamic range of 80 d8, as well as two linear audio channels with Dolby NR. Normal/Hi-Fi recording is selectable. Uses XLR connectors to further ensure high-quality sound.
   Has a 26-pin connector on the back that outputs a composite or component video signal. This enables convenient backup recordings using an additional VCR equipped with a 26 or 14-pin connector
   Phantom power can be supplied to an optional microphone. Power can be switched off to prevent battery drain when not in use.

800-947-9003

## **Digital Video Camera**

Weighing in at 1.1 LB with battery and tage, the 570,000 pixel GR-DV1 is the smallest and lightest Are growing in at 1.1 own battery and use, the 37 own power by the translaters and lightest camoorder in the world. Technological advances along with miniaturized high quality optics have made this possible without sacrificing any quality or features. Add digital video and audio recording at much higher quality than any conventional camcorder and you have one of the most versatile recording tools ever developed. Applications include personal video recording, surveillance, recording important meetings and multimedia presentations.



DIGITAL VIDEO
The GR-DV1 combines a 570,000 pixel image sensor with the new DV formats 4:1.1 digital component recording system to deliver a razor sharp picture with 500 lines of resolution. Also provides enhanced definition and color accuracy even with the subtlest colors. Also features a Digital Image Stabilizer to eliminate camera shake without affecting resolution.

Previously available only in high end cameras costing tens of thousands of dollars. CD quality audio recording on video tape is now available. Digital audio recording delivers 2 channels at 48kf (16-bit) sampling for highest quality or four channels at 32kHz (12-bit) when dubbing or mixing is required.

COLOR VIEWINDER
Line-of-sight design of the color viewlinder, which slides back to
engage standby mode along with the vertical orientation of the
camcorder ensures point and shoot simplicity.

#### DIGITAL SPECIAL EFFECTS

DIGITAL SPECIAL EFFECTS

A multitude of special effects are possible with the GR-DV1 including wipes, fades, and dissolves. In addition, some specialized effects such as Classic Film, Monotone, Sepia, Strobe, and Video Echo can be recorded in the camoorder or can be played through docking station—even if they weren't originally recorded.

#### SNAPSHOT/QUICKPIX/ANIMATION

- Snapshot mode captures still images with a white border around it and even adds a shutter sound effect The image is recorded for it and even ados a struiter sound effect. The image is recorded for 6 seconds before the next image gradually overlaps the snapshot and normal recording resumes. A Snapshot Search feature lets you put together a video ablum using captured photos OuickPix or 5-second-record mode automatically records five second clips of video and audio when start button is pressed. Animation mode records scenes for just 1/8th of a second each
- time the start button is pressed. When inanimate objects are recorded with slight changes in position between shots an animation effect is rendered to the objects making them come alive

#### DIGITAL ZOOM

10X variable speed optical zoom with built-in macro capability delivers razor sharp images from a distance or as close as 1 5 cm from the subject. Also offers 20X digital zoom and amazing 100X Super Digital zoom allowing image capture from a tremendous distance while retaining a good degree of sharpness

#### USER FRIENDLY MENU SYSTEM

Zoom rocker control is used to make the different selections as Zoom rocker common is used to make the united the selections at they appear in the color viewfinder allowing you to call up set-lings from the menu without taking your eye away off the viewfinder. This design allows the GR-DV1 to have a minimum viewfinder. This design a of controls and switches

#### DOCKING STATION

- Multi-function docking station offers even more sophisticated playback capabilities. Plus advanced editing functions like
- has been been been been and audio dubbing.

  Has composite video and audio jacks plus an S-Video jack (not built in to the camcorder).

  Accessed through a multibrand wireless remote control R.A (ran
- dom assemble) editing enables programmed rearrangement of up to 8 scenes at a time, just by marking the beginning and end
- of scenes.

  Up to 17 scene transitions can be specified in addition to the 5 special effects that can be added (see above).

  Video insert editing allows new video to be inserted over prere-
- corded segments without disturbing the audio segment
- When inserting audio 16 bit (48kHz) full audio insert replaces recorded audio with new audio without disturbing the existing video track. In the 12 bit (32kHz) mode, 2 additional audio track: can be added to the existing audio and mixed.
- Enables 1/10th speed slow motion playback in either direction plus a 10x zoom can be activated to zoom in on a portion of the picture. The remote controller can then shift this portion of the picture up, down, left, or right.



# **C** PROFESSIONAL

## GY-X3 3-CCD S-VHS Camcorder

By employing professional camera technology in new economical ways, JVC has succeeded in bringing to market a professional 3-CCD camera that breaks all previous price barriers. The new GY-X3 delivers all the performance of a high end 3-CDC camera—high resolution, high sensitivity, low noise and natural color—at an incredible price.

- high sensitivity, low noise and natural color—at an incredible price.

  Features:

  \* Three 1/3" CCDs provide a sensitivity of 2000 lux at f8.0, signal-to-noise ratio of 60dB and 650 lines of horizontal resolution.

  \* Low light capability allows you to shoot in as little as 4 lux and stall have bright pictures with good resolution and strong, vivid colors.

  \* Full Auto Shooting (FAS) mode instantly adjusts to changes in shooting conditions.

  You can go from bright outdoors to indoor lighting and gain, iris, audio level and color balance will all be automatically adjusted.

  \* Variable Scan View allows flicker-free shooting of a computer monitor.
- Variable Scan View allows ticker-free shooting of a computer monitor.

  Has a built-in 14:1 (5.5-77mm) continuosly variable speed zoom lens. The amount of pressure applied to the rocker determines the speed of the zoom. Both the Iris and zoom can be controlled manually if desired.

  Built-in Control Track (CTL) time code generator as well as a time/date generator. The advanced CTL time code generator has a "scene finder" function that records an identification code each time you start taping. This lets you easily advance to the next or previous scene when using the JVC Edit Desk system.

  Large high resolution 1.5-inch viewlinder displays comprehensive status indicators.



## GY-X2B 3-CCD S-VHS Camcorder

- Newly designed three 1/2" COD image sensors deliver 750 lines of horizontal resolution & superb signal-to-noise ratio of 6/30 eVen micro-less technology provides exceptional sensitivity of F8.0 at 2000 lux and LOLUX mode lets you shoot with almost no light! Shoot superb lootage with excellent color halance at a mer t-5 lux Variable Scan allows flicker-free shooting of a computer screen Variable Scan Mode. withen timed on the camera is set to the auto tirs even
- Variable Scale analows incxer-rees incoming of a computer Screen
   Outsick Report Mode when turned on the camera is eit to the auto iris even if lens is set at manual. Also activated is (ALC) Automatic Level Control and EEI Extended Electronic Iris which provides both variable gain and variable shutter. Now you can shoot continuously from dark room to bright outdoors without having to adjust gain, iris or ND filter.

  Full Time Auto White circuit lets you move from incandescent to fluorescent to outdoor lighting without changing white balance or the filter wheel. •Dual output system allows camera output to be connected directly to an external recorder.

## Quick-Draw Professional FOR CAMCORDERS OR STAND ALONE CAMERAS

Designed for working from the back of a van or the trunk of your car. The top loading case has a wide open fold back top that stays neatly out of the way. It's lighter and more compact than shipping cases, thus saving valuable storage space. With other equipment crowded around it the sturdy built-in frame provides added protection

- Heavy duty shoulder strap & comfortable leather hand grip.
- Carry it in crowds crush proof aluminum guard protects viewfinder
- Fits into back seat and fastens securely with seat belt
- Holds camera with on-board battery attached.

  Lid closes with Velcro for quick-opening or secure with full-length zippers
- Two trim exterior pockets and clip board pocket.
- Dual purpose rear pouch is an expandable battery chamber or all-purpose pocket.



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# SONY

SVO-2000 s-vHs Hi-Fi Editing VCR
The new SVO-2000 is a powerful, yet easy-to-use s-VHs Hi-Fi
editing recorder. Two SVO-2000 recorders combined with the
optional RM-50E did Controller forms a cost-efficient outs-only
editing system – with full assemble, video insert, audio dub and
program editing cashed audio. Program editing cashed in the state of the st

program enting capacinity.

Superb Video and Audio Performance

SVHS format delivers 400 lines of horizontal resolution and consistent, clear image reproduction for superior editing results. Adaptive Picture Control (AFC) System for optimum picture performance. In record mode, APC automatically tests an inserted tane and checks the condition of the video heads. If then adjusts tape and checks the condition of the video heads. It then adjusts the VCR recording circuitry to capture images that are as clear and crisp as they can be in Playback mode. APC automatically sets the ideal balance of picture sharpness and clarity.

Hi-Fi stere occording system has a vide frequency response of 20Hz to 20kHz and a superb 90dB dynamic range, and individ-

ual recording level controls for the left and right channels.

 The SVO-2000 has a Control-Edit Spin remote terminal that 250 for easy setup.

With Control-S input and output terminals, two SVO-2000s can be connected for synchro editing, without the RM-250.

## SVP-5600 and SVO-5800 S-VHS Player/ S-VHS Editing Recorder

SVP-5600 and SVO-5800 features:

• S-VHS with high quality signal are

S-VHS with high quality signal processing techniques like DNR, Digital Field DOC and Chroma Process improvement, to

DNH, upital Held DUC and Caroma Process improvement, deliver the consistent picture quality so essential to editing. They also incorporate a wide video head gap and track width (58mm) for stable and faithful picture reproduction.

• Each has a built-in TBC plus an advanced Digital Noise Reducer (DNH) for both the chrominance and luminance signals to elivers device with the chrominance and luminance signals to eliminate noise during playback. At the same time, a field memory incorporated in the noise reducer removes jitter to provide sharp, stable pictures. The field memory, also includes a Digital Field DOC (Dropout Compensator), which replaces signal dropout with information from the previous field.

Chroma Process Improvement circuitry greatly improves the chroma bandwidth, thus enabling sharper and clearer color picture reproduction. eliminate noise during playback. At the

er and clearer color picture reproduction

er and clearer coor picture reproduction.

\*Two Hi-Fi tracks provide a wide frequency response from 20hz to 20khz and a superh dynamic range of 90db. Two linear tracks incorporate Dolby B noise reduction for high quality sound reproduction. XLR connectors are used for the inputs and outputs for all four channels.

MULTIPLE INPUTS AND OUTPUTS

 Both machines employ composite and S-Video connectors.
 With optional SVBK-170 Component Output Board, they provide component signal output through BNC connectors

allows it to be controlled externally Connects directly to RM-

. RM-250 also offers program editing capability, which allows automatic sequential editing of up to 20 pre-assigned scenes

ADVANCED EDITING FUNCTIONS

Both employ a sophisticated servo system, an improved quick response mechanism and built-in LTC/VITC time code

capability. This makes them ideal for animation and computer graphic recording, where a frame-by-frame editing function is

indispensable

indispensable. 
• Equipped with RS-422 9-pm serial interface. 
• When connected to an RS-422 equipped edit controller, the SVO-5800 performs assemble and insert functions and also provided audio spite editing capability of normal audio tracks 1 and 2. In the insert mode, widen audio and time code can be video, audio and time code can be inserted independently, or in any combination

USER FRIENDLY OPERATION

 Built-in character generator superim-poses time code data, control track, menu setup and VCR function status on a monitor

menu setup and VCR function status on a monitor. For more efficient operation they have an on-screen setup menu which allows a variety of customized VCR mode operations. Programmed in the form of a layer structure, you simply go through the menu and initialize VCR operation.

All parameters of the TBC, such as luminance level, chroma level, setup, hue, YVC delay, sync phase and SC phase are easily controlled from the front panel, and can be remotely controlled from the optional UVR-60 TBC Remote Control, which also accesses field freeze function in the still mode and allows on/off control of chroma and luminance noise reducer.

# Panasonic C

AG-1300

**Industrial 4-Head VHS VCR** 

- HR (High-Response) mechanism uses the full-loading tape transport system for quicker picture display, fast forward and rewind.

  Enlarged multi-function display gives all information at a glance. Indications for the time, recording or playback mode and other often

- used functions are easy to confirm from across a room.

  S-VHS quasi playback (SOPB) let's you playback S-VHS tapes (in normal VHS resolution).

  On-screen display (in four languages) provides clear and easy to follow programming instructions.

  Industrial strength VCR, the AG-1300 features a rugged metal cabinet on an aluminum die-cast chassis. Includes full one-year warranty on parts and labor.
- Other features include: built-on head cleaner, automatic repeat, real-time counter, frame advance, high-speed search (27x in SLP

### AG-2540 Industrial 4-Head VHS Hi-Fi VCR

Same exact features as the AG-1300 plus—
Super jog/shtuttle puts 19-step control over playback speed at your fingertips, giving you greater control while searching for scenes.
Hi-Fi stereo sound system with a dynamic range of more than 90 dB.

## AG-1980 S-VHS Hi-Fi Editing VCR

Incorporating advanced digital signal processing and digital noise reduction circuitry, the new AG-1980 delivers such high picture quality—that it's third-generation picture looks almost as good as first-generation offerings from other VCRs in it's class. In addition to it's incredible video quality, the AG-1980 also features a full field digital TBC, insert and assemble editing. Hi-Fi stereo, quick response mechanism and a

remote editing terminal

emble equiting terminal.
Still the only VCR in it's class to provide near frame accurate editing. When used with edit controllers from Videonics, FAST and FutureVideo, the AG-1980 achieves an accuracy of ± 2 frames And, the 5-pin edit terminal on the rear panel makes it very easy to set up an editing system. Performs all assemble and video insert edits as well audio video dubbing. Also has independent linear audio input and output for

more flexible audio dubbing.

Hi-Fi stereo audio with a frequency response of 20Hz to 20kHz and a dynamic range of 90dB. It also has Hi-Fi recording level control, headphone monitor terminal with volume control and a mic input terminal

Digital Processing:

-Equipped with a Digital Comb Filter using an advanced 3-dimensional system the AG-1980 provides complete Y/C

-Equipped with a Digital Comb Filter using an advanced 3-dimensional system the AG-1980 provides complete Y/C (luminance/brominance) spearation. This practically eliminates color and furninance burring.

-Field coefficient Digital Noise Reduction (DNR) circuitry processes the Y and C signals separately, thereby boosting the signal-to-noise ratio and reducing noise during playback.

-Has a built-in full field TBC (Time Base Corrector) that eliminates even the smallest of jitter, skew, head impact error and color blurring, Invaluable for editing, the TBC helps maintain high picture quality even through the third-generation.

Besides it's digital circuitry, the AG-1980 also leatures laminated video heads. Clearly superior to heads of conventional ferrite they provide richer, more vibrant color reproduction and a higher signal-to-noise ratio.

Advanced dual-toading mechanism features a quick response time, requiring only 0.5 seconds for a picture to appear from Stop mode and 1.9 seconds from FF/REW.

### AG-5700 S-VHS Hi-Fi RS-232 Editing VCR

• Has amorphous video heads to yield a higher signal-to-noise ratio.

• Achieves an accuracy of ± 3 frames with optional AG-A570 Edit Controller.

• Bult-in RS-232 provides machine control of laplyack, recording and editing functions from a computer. You can use the power of your computer (with optional software) to assemble hundreds of scenes, create edit decision lists and do complex editing lobs.

Auto Repeat function continuously replays a tape which can be cued for tape's end or when recorded material ends

Separate Hi-Fi (Ch.1/Ch.2) audio recording level controls with display. There is also

- Separate ment (oil, notice) addo recomming level commons with display. There is also a headphone output with volume control.

For unattended recording there is a Sensor Recording function. When a video signal is detected the power is automatically switched on and the AG-5700 begins recording.

For video presentations the AG-5700 is ready to go. Weighs less than 13 lbs, extremely compact with a built- in carrying handle.

## **AG-DS540/AG-DS550** Professional S-VHS Source Player/ S-VHS Edit Recorder

3-dimensional digital TBC with a correction range of one field. With the VCRs continuously retaining one field in memory, the data is used for 3-

D type processing thereby providing excellent dropout compensation, Digital Signal Processing for improved picture quality, and for maintain-ing uniform picture quality during editing. Digital processing circuits

-Chroma Aperture Compensation (CAC): Eliminates color blurring and

expands chroma bandwidth.

Digital Noise Reduction (DNR): Processes Y & C signals separately to boost S/N

Ratio by minimizing noise during playback.

Digital Comb Filter: Advanced 3-dimensional system for total Y/C separation pro-

viding reduced color and luminance blurring.

Employs amorphous video heads that have a higher magnetic coercivity than conventional ferrite heads.

Expanded requency response from the amorphous heads enhances picture quality by minimizing color blurring.

Built-in LTCAVITC (Longitudinal/Vertical Interval) time code reader/generators for absolute frame accurate editing.

- Button LLOVITE (conglutionaryerical interval) time code reader/generators for associute trame accurate enting.

10 (Intelligent Quest) mechanism delivers precise, high-speed operation. The dual-loading system achieves high-speed response while protecting tapes and heads. The tape transport mechanism uses five direct drive motors, including two reel drive motors.

- Performs audio spit editing which lets you set the edit-in and edit-out points separately from those for video.

- Capstan Control System with large capstan spindle allows high-speed search at 32x normal speed (with color picture).

- 4 channel audio – 2 hi-fi stereo channels with dynamic range of 90dB as well as 2 linear channels with Dolby NR. Each audio channel has its own input IAG-D550 only) and output with individual channel-level setting capability and use XLR connectors.

- Provide 16:9 wide aspect compatibility, so they are fully equipped for the next generation of televisions.

3 rack units high, they are unbelievably compact for easy space saving installation. 19 rack-mountable with optional AG-M730.

## "STEP UP TO SUPERDECK \$1000 REBATE"

Purchase one AG-DS540 and one AG-DS550 or two AG-DS550's and receive a \$1000 rebate directly from Panasonic! It's that simple.

DFS-300 **DME Switcher** 

The DFS-300 features basic transitions such as wipes and mixes, as well as complex DMEs, or digital multi effects. It allows you to insert sophisticated patterns like picture—in-picture, mosaic, mirror, slide and matrix wipe designs. With the optional RKDF-301 3D Effects board installed, you can perform three dimensional rotations, page turns, image twists, multi-spills and 3D spherical effects—in real time. No stiting around waiting for loading or rendering. With it's digital multi-effects, numerous keying options, 3D transitions and user-friendliness, the DFS-300 is in a league of its own.

#### **POWERFUL MULTIPLE EFFECTS** Effects Modification • To suit individual tastes, allows effects modification for some

#### Up to 500 Effects

- Up to 500 Effects

  330 factory preset 2D effects and wipes stored for immediate
  use. They include wipe, compression, rolation, slide, split,
  mirror, stream, etc. as standard.

  With the optional BDKF-301-3D board installed, 130 additional
  preset effects such as twist, page turn, splere, etc. can be
  memorized and recalled witherever required.

memonzed and recaled whenever required.

Powerful User Program

Provides powerful, yet easy to operate effects programming to build your own effects. Cut, mix, wipe, side, rotation and many other 2D effects and optional 3D linear and digital effects can be created with the unit's programming function. Up to 20 created effects can be stored for instant recall and that is doubled when the 3D board is installed.

# amplitude further enhances effects editing. 111 of the most frequently used wipes are available from the preset patterns and 13 of them are directly accessed with a press of the keypad. Alixes, wipes, as well as digital effects transitions can be performed manually or automatically. Automatic transitions can be varied from 0 to 999 frames in duration for both foreground and background bus transitions and the DSK transitions.

#### Multi-Format Inputs/Outputs

Multi-format Inputs/Dutputs
Three primary inputs accept composite, S-video and component signals. A fourth input accepts either component, RVG/B/Sync or a computer generated RGB signal. Color correction can be applied to any input. Two program outputs provide composite, S-video and component signals.

#### Luminance Kever

Foreground sources such as titles, captions or figures can be self-keyed over a background source and rotated, compressed and positioned optionally in 3D space.

#### Chroma Keyer

Any preset effect can be applied to the chroma keyed picture

#### Superimpose video from a foreground source onto a background source. • Clip and Hue can be controlled for clear and sharp key edges.

Snapshot Function Stores up to 99 control panel settings in "Snapshot" memory for instant recall. Every parameter such as background color hue, border width, shadow density, etc. can be stored and recalled.

- **HIGH PERFORMANCE SWITCHER** Optional Down Stream Keyer

  Dottonal BDKF-504 DSK (Down Stream Keyer), lets you intro-
  - Opinional bDKR-304 DSK (Down Stream keyer), lest you introduce captions, characters, etc. with clear edge quality, after mix/effects processing.
     DSK key input accepts composite, component or RGB signals Position and type of the DSK are selectable and a box mask is provided to mask unwanted areas of the picture. Built-in Matte Generator

of the preset effects like mosaic, posterization, solarization, wave, multi-picture, strobe, frosted glass, cinema mode, etc. - Fine control over various parameters such as size, density and amplitude further enhances effects editing.

button make uplerators for backgrounds; can be a solid color or one of 31 different textured patterns, border and effect matte signals. Also instantly selectable color bars, grid pattern and solid black. With the BKDF-504 DSK, you get two more matte generators for DSK matte and DSK border matte.

generators for DSK matte and DSK border matte.

Other Features

Four different title modes ofter the ability to perform key effects such as luminance key, chroma key, external key or downstream key from a varfety of input sources.

Three black-burst outputs provide synchronization to equipment requiring sync signals. A genlock input allows the DFS-300 to be synchronized to an external timing source.

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**EQUIPMENT LEASING AVAILABLE** 

## BR-S500U Player • BR-S800U Edit Recorder

**RM-G800U Edit Controller** Fast, accurate and professional style videotage editing is now more affordable than ever. This new "S" editing system, costing thou-sands less than ever before, consists of the BR-S800U Player/Feeder, the RM-G800U Edit Controller and the BR-S800U Editing Recorder. Linked via JVC's proprietary control bus, these three units offer all of the editing features professionals have come to expect. The VCRs feature a fast, heavy-duty thape drive similar to that used in JVC's renowned "22 Series". It (Control Track) time code provides unparalleled accuracy and flexibility. Best of all the VCRs feature an open architecture for easy

#### **OPEN ARCHITECTURE**

Two plug-in extension slots on the rear panels (for both VCRs) accept a variety of optional expansion boards. To build a PC-based editing system, add the SA-K27UA RS-232C interface board. To use with more sophisticated editing controllers, plug in the SA-K26U RS-422 board. Other boards include the SA-K28UA ing image quality, even when dubbing down multiple generations 45-pin board for connection to older JVC editing systems, the SA-NSOU DNR board with time base stabilizer, and the SA-RSOU VITC/LTC time code generator/reader.

#### CONTROL TRACK TIME CODE SYSTEM

Built-in time code reader (BR-S500U) and time code reader/generator (BR-\$6001) utilize JVC's CTL (Control Track) Time Code System. This system records absolute tape address information (hours: minutes: seconds: frames) on the control track, and pro-vides fast and accurate access to any frame on the video tape. This is far superior to control track counters that lose reference when the tape is removed. CTL Time Code can be added to the tape during the recording process or "post striped". For profes-sional SMPTE time code operation there is the optional SA-R50U VITC/LTC Time Code Reader/Generator card.

## SUPERB VIDEO PERFORMANCE

Has latest picture improvement technologies for razor sharp images, with over 400 lines of horizontal resolution. Digital Y/C separation, chroma noise reducer, chroma aperture correction and a 3-line cross-talk cancellation all combine to ofter outstand-

32X VARIABLE-SPEED SEARCH Front-panel search dials featured on both the BR-S600U and BR-S500U provide fast, accurate picture search at up to 32x normal speed. This is possible due to the incorporation of a heavy-duty direct-drive mechanism similar to that used in JVC's "22 Series."

FOUR-TRACK AUDIO

Each features two Hi-Fi stereo channels with a wide frequency response and a dynamic range of over 80 dB and two linear tracks. The linear tracks of the BR-S800U can be dubbed independent of each other and of the video. This is ideal for adding background music or sound effects to an existing audio track There are two audio level meters, switchable bet nnels. Separate input and output termi

#### **RM-G800U EDIT CONTROLLER**

- Has two GPIs allowing automatic triggering of special effects generators, switchers or audio mixers.
   Features automatic assemble and insert editing, audio insert editing, as well as previewreview for checking edits before and after editing, and goto for direct access to any edit point. A capstan bump function is provided to assure greater edit consistency.
- 8-digit LEO counter indicates all edit data in either the TC or CTL mode. Switchable between player and recorder.
   1 The RM-G800U's Jog control is precise and responsive, making it easy to locate any frame on the tape. You can enter the Jog mode directly and switch between the player or recorder at the touch of a button. The Jog dial can also be used to enter and trim edit points and pulse timing from the GPI ports.



BR-040 Digital Dockable Recorder

**BR-D80** Digital Editing Recorder

**BR-D50** Digital Player

BR-D85 Digital Editing Recorder with Pre-Read

11 LES JAMES

# High Quality Digital Editing Is Here and It's Affordable! An atlandable, broadcast quality digital video recording and editing system, the Digital-5 series reproduce images that not only are superior to any analog or digi-tal-41:1 format but rival even the highest priced digital systems, It offers the robustness and reliability of a 1/2-inch format and combines 4:2-2 component pro-

cessing with very mild compression to achieve and sustain excellent quality through multi-generation dubbing. The quality of Digital-S applies equally to acquisition and editing, plus it has the

flexibility to easily integrate into any digital or analog format—tape or disc.

Purchase the entire system or one component at a time, its flexibility lets you to use existing equipment



#### **Broadcast Quality Digital Video**

- Utilize 4:2:2 digital component processing to add a richness and warmth unobtainable with any lesser system. In addition, only 4:2:2 stands up to the rigors of sophisticated chroma-keying, multi-generational editing, special effects, blue-screen compositing, matthing, ATV up/down conversion, and multiple transconversiom between compression systems.

  Reproduces finest colored details and subtlest contrasts while
- minimizing artifacts using extremely mild compression ratio. Set to 3.3:1 with DCT-based intra-frame coding, Digital S yields
- a data rate of 50 Mbps, plus it pumps out horizontal resolution of 720 pixels or 540 TV lines. S/N ratio is an incredible 5568 Audio is recorded by 2-channel, 16-bit PCM signals with a sampling frequency of 48kHz. The audio is superior to CO and allows frame accurate editing. PCM audio channels can be edit-
- ed independently
  Standard analog inputs/outputs provide outstanding perfor Sandard analog improvouppus province dustantimy perfort chus are required, they use SMPTE 259M Interface for digital video and AES/EBU for digital audio. The one true digital video standard today, SMPTE 259M permits long cable runs and is used for direct professional connection to digital switchers, disk-based recorders and digital tape recorders

### Robust 1/2-Inch Format

- Achieves its super-high image quality using a robust, 1/2-inch metal particle cassette tape. The cassette housing has a dust-proof structure to increases tape iffe as well as your images. Tape speed is 75.8 mm/s for acroording time of 104 minutes. Origital S features an extra wide track-width of 20 microns for
- onglate teather and an artifact the state of the audio track, improved stability, and reliability. One frame consists of 10 tracks with the video area on either side of the audio track. Equipped with powerful error correction circuitry that not only.
- replaces data in the unlikely event of a tape dropout but, continues to play back a picture even with a cloqued head.

#### **Digital Editing**

- Digital-S VCRs are equipped with variable slow motion which can be accessed by standard editing commands. Smooth and
- noiseless, the image quality of slow motion is equal to require playback and is available within a range of ±1.30%. \*Longitudinal tracks include two auxiliary audio (cue) tracks and a control track for tracking purposes. Oue tracks provide easy location of edif points which can be fleard at any tape speed.
- · Because of its linear control track, Digital-S has a short lock-up time which eliminates long pre-rolls. This feature achieves a
- Auxiliary video (sub-code) area stores two selectable uncom-pressed lines of video. Suitable for recording closed caption or other information located in the vertical blanking interval.

PRE-READ EDITING (BR-D85 Gnly)
Previously an exclusive feature of very high-end digital
systems, video pre-read enables the recorder to first play
back the digital signal on the tape, before recording a new signal in its place. Operable with either digital or analog signals, pre-read lets you perform layering and A/B roll editing with only two VCRs, instead of three

#### Operational Conveniences

- Comprehensive analog inputs/outputs (composite, S-video and component), video and audio-monitor output, RS-422 interface and VITC/LTC time code.
- Jog/shuttle and system liming controls on the front panel Footage can be searched in color at up +32X normal speed.
- They have a self diagnostic warning system plus, an RS-232 diagnostic service sorvice port measures digital data performance during playback. There is also a standard hour meter.
- They also feature flying erase flead, rack mount capability and huilt-in head cleaner

# Y COLOR MONITORS

- Employs a P-22 phosphor fine pitch CRT to deliver stunning horizontal resolution of 450 horizontal lines.
- Beam current feedback circuit eliminates white balance drift for long term stability of color balance.
- Has analog RGB, S-video and two composite video (BNC)
- has analog Hop, 5-video and two con-inputs as well as 4 audio Inputs. Automatic Chroma/Phase setup mode facilitates the complex, delicate pro-cedure of monitor adjustment. Using codure of monitor adjustment. Using broadcast standard color bars as a reference, this function automatically calibrates chroma and phase. Chromia/Phase adjustments can also be easily performed with the mono-chrome Blue Only display. Factory set to broadcast standard 6500K color temperature. On power up, auto deguassing is per-formed. There is also a manual degauss to demagnetize the screen. On-screen menu facilitates adjust-ment/operation on the monitor. Menu display is in English, French, German, Spanish or Italian.

- Sub control mode allows fine adjustments to be made on the knob control for contrast, brightness, chroma and phase

#### PVM-1351Q 13" Production Monitor

- PVM-1351Q 13" Production Monitor
  Has all the features of the PVM-1350 PLUS 
  \* A multisystem monitor, it accepts NTSC, PAL and NTSC
  video signals. NTSC 4.43 can also be reproduced.

  \* Equipped with a SMPTE 259M Serial Digital Interface. With
  optional serial digital interface kit BKM-101C for
  video and the BKM-102 for audio the PVM13510 can accept SMPTE 259M component
  serial digital signals.

  \* Equipped with RS-422 senal interface. With
  optional BKM-103 serial remote control kit,
  all of the monitor's functions can be remote
  ly controlled.

  \* Inputs include analog RGB, S-video, component, 2 composite video (BNC) and 4 audio
  for complete flexibility.

  \* Aspect ratio is switchable between 4:3 and
  16:9 simply by pressing a button.

  \* Underscan function allows you to view
  entire image and check the picture edges.
  Also H/V delay to view the blanking area,
  sync/burst timing by displaying the horizontal and vertical intervals in the center of the
  screen.
- tal and vertical intervals in the center of the Cofor temperature switchable between 6500K/9300K/User preset, 6500K is factory preset, 9300K is for a more pleasing picture. User preset is 3200K to 10,000K.

#### PVM-1354Q/PVM-1954Q 13" and 19" Production Monitors All the features of the PVM-1351Q PLUS:

SMPTE C standard phosphor CRT is incorporated in thie PVM-13540/19540. SMPTE C phosphors permit the most critical evalua-tion of any color subject. Provides over 600 lines of horizontal resolution.

The PVM-1354Q mounts into a 19-inch EIA standard rack with the optional MB-502B rack mount bracket and SLR-102 side rail kit same as PVM-13510. The PVM-1954Q mounts into a 19-inch EIA rack with the optional SLR-103 side rail kit.

## Why pay \$10,000 to \$15,000 for a BROADCAST QUALITY CHARACTER GENERATOR

when you can get it for only \$2995?

Introducing the new......

# VIDEONICS POWER Animated Postscript Character & Graphic's Generator

A technological and engineering breakthrough, the PowerScript sets new price/performance standards for broadcast video pro duction, multimedia and industrial applications. It delivers the huge range of titles and graphics supported by PostScript display technology, plus animation, effects, transparency and keying, It features anti-aliased, 17.5 ns (nanosecond) pixel resolution and 4:2:2 broadcast-quality video, plus high-speed RISC processing to provide real-time Level 2 PostScript imaging and fast render ing—even with the most complex images. The PowerScript works stand-alone or with a computer, has a built-in TBC, offers a powerful and intuitive interface, and is suitable for the desktop or can

#### Powerful Character Generator

- Powerful Character Generator

  Choose from 3 built-in fonts or download hundreds of
  PostScript fonts from your computer. It's high-speed RISC
  processor provides real-time PostScript Level 2-intaging.
  Characters and no trotted at any angle, scaled to any size.
  Stretched horizontally or vertically.
  Styles include variable bold and fallic underline and shadow
  (drop shadow, variable displacement and opacity). Each
  character can be adjusted separately.

  I set can be positioned anywhere on the screen or automatically centered, vertically or horizontally.
  Lett, night, tup, bottom & center justification is provided as well.
  Characters are automatically kerned, using the font's standard kerning information.

  Spacing is highly flexible with variable word and letter spacing (leading).
  Intultive User Interface

### Intuitive User Interface

- Built-in real-time object-based drawing tool and text editor, no external computer or software required. Design can be no external computer or software required. Design can be done ahead of time and displayed later, or can be done on the fly. Display is real time.

  Supplied keyboard and mouse are used with easy on-screen menus to place and motify graphitis and text.

  - Customizable function keys let you change lonts, colors, and other characters instantly.

  Separate preview output allows you to create and edit titles while another set of titles is being displayed.

- while another set of titles is being displayed.

  Roll, Crawl, Animation, Effects

   Variable speed roll, crawl, Animation, Effects

   Variable speed roll, crawl and push (side) in all directions

   Every text object, graphic, and logo can be separately animated. Complex animations include ability to have elements
  follow paths, bounce, etc.

   Elements can change outline and/or fill color, transparency,
  position as they move and results are displayed in real time.

   Move individual characters in different directions; make colors change. Each words: make letters and words bounce:
- ors change; flash words; make letters and words bounce;
- spin a letter across the screen. Use effects like lades and wiges to transition between titles and video or between two pages of titles.



#### Kavar

- Keyer

  Infernal linear keyer superimposes characters and graphics on S-video or composite sources.

  Also provides aith-alased down-stream keying via a separate innear KEY outflot.

  Backgrounds and Graphics

  Titles can be piaced on solid color, patterned or graduated backgrounds; or they can be genlocked to incoming video.

  Lines, squares, rectangles, ovals and circles can be created and placed anywhere on the screen.

  Each graphic object can use a different color, transparency, rotation, size, fill and outline.

  Transparency and Colors

  Characters can be made transparent (0-100%) over video, other characters and graphics with 64 levels of transparency.

  Opaque characters can use over 4,000,000 colors, transparent characters can use over 8,000.

  Different colors can be used for fill and outline (variable width) as well as each letter and graphic.

- Oifferent colors can be used for fill and outline (variable width) as well as each letter and graphic.
   Imported Logos and Graphics
   Import and display complex graphics created with standard Mac, Windows, Amiga and UNIX-based programs, such as Photoshop, Corel Draw and Adobe Illustrator. Accepts most PostScript or FPS format graphics without modification.
   Imported images can be any size and can be scaled, skewed, and rotated when placed on screen.
   Transparency and anti-aliasing can be defined when graphic is generated.

#### **Expansion Capabilities**

Expansion Capabilities
PowerScript operates on its own but you can still add
peripherals and connect to a computer or network. Two
PCMCIA slots allow the addition of non-volatile flash-RAM
and Ethernet cards, and an RS-232 serial port allows connection to computers.

## Built-in Test Generator

The PowerScript can generate standard video test patterns including color bars, crosshatch, ramp, gray wedge; multi-burst and blackburst. Titles can be placed atop any of the

Still not convinced, then call us for a free PowerScript demo tape and see for yourself.



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#### VIP Video Lighting System

Designed for video, they are capable of 55 to 500 watts of power, can be powered AC or DC, camera or stand mountable. They are all convection cooled and some have adjustable light beam.



#### i-light

The tiny i-light provides fill light. eye-light, high-lights, and contrast control in news and documentary shooting

- Multi-use halogen source 55 or 100 watt, DC powered light
- (12 or 14 volts)

  Includes cigarette lighter connector or optional 4-pin XLR
- Optional controls include expandable barndoors, scrims, diffuser, dichroic filter, snoot, umbrella, gel-frame, flags,

#### V-light

Efficient enough to light a small room yet small enough to fit in a large pocket, the V-light can be used as a broad, key light, back light or fill light (with umbrella or gel.)

Extreme wide-angle multi-use halogen source

- 500 watt. AC powered light
- · Mounts on stand, clamps, boom, wall, window, door-top.

### **Pro-light**

Can be used as a low-level key or accent light, fill light

- (w/diffusion), backlight or background light.

   Multi-use halogen focusing source

   125 and 250 watt AC powered light or 100 watt at 12 volts
- Dptional controls expandable barndoors, scrims, diffuser dichroic filter, snoot & umbrella, gel-frame & flags.
- · Optional cigarette, 4-pin and 5-pin XLR conne

# DRITA

## **Blackburst/Sync/Tone Generator**

The BSG-50 provides an economical means for generating the most common RS-170A video timing signals used to operate various video switchers, effects generators, TBCs. VCRs, cameras and video edit controllers

- 6 BNC video/pulse outputs
   Now available: 6 blackburst, 4 sync, 2 subcarrier
- Each sync output individually settable for composite sync, composite blanking, H-drive, or V-drive.
- Separate buffer for each output-maximum signal isolation
- . 1KHz, 0dB sinewave audio tone output, locked to video



#### **CSG-50 Color Bar/Sync/ Tone Generator**

- · Generates full/SMPTE color bars, blackburst and composite sync signals.

  Built-in timer can automatically switch video output from
- color bars to color black after 30 or 60 seconds. Easy and convenient for producing tape leaders and striping tapes with color bars and black.

  Front panel selection of full-field or SMPTE color bar pat-
- terns or colorblack (blackburst) video output.

- Includes crystal-controlled, 1KHz, 0dB audio tone output.
  Outputs: video, sync, ref frame, 1 KHz, 0dB
  Audio tone switches to silence and color bars change to
- black when using 30/60 second timer

  Fully RS-170A SC/H phased and always correct
  No adjustment required......

#### WE STOCK THE FULL LINE OF HORITA PRODUCTS INCLUDING:

Window Dub Inserte TG-50 -Generator/Inserter Generator/Inserter/Search Speed Reader

Has all of the above plus RS-232 control. VITC Generator, LTC-VITC Translator VLT-50 . **VITC-To-LTC Translator** VITC-To-LTC Translator / RS-232 Control RLT-50 -

Hi8 (EVO-9800/9850)TC to LTC Translator TSG-50 **NTSC Test Signal Generator** SCT-50 -Serial Control Titler "Industrial" CG,

Time-Date Stamp, Time Code Captioning Sale Area, Convergence Pattern and Oscilloscope Line Trigger and Generator

# MER LIGHT WAVE 3D

#### The Ultimate 3D Rendering and Animation System for Broadcast Graphics

A new release of the all-in-one photo-realistic animation system that has been used in seaQuest DSV, Babylon 5, Hercules, Star Trek: The Next Generation and Voyager, LightWave 3D version 5.0 allows you to view solid objects and lighting effects interactively as animation is created through the implementation of OpenGL.

- \*Lightwave 3D 5.0 is also the only product to break the poly-gone/spline barrier with the introduction of MetaNURBS. gone/spline barrier with the introduction of metanomos.

  Metanuras performs real time transformations between polygons and splines, enhancing your ability to create organic 3D objects easily. MetaNURBS is the first tool to effectively utilize ngths of both techniques making it easier than ever to cre
- . Another new modeling feature is MetaBalls, which utilizes spheres to quickly approximate complex shapes. MetaBalls automatically generates a skin based upon that approximation, transforming it into a complex 3D model
- Hightwave 3D 5.0 includes over 100 new features that enhance your ability to create visual effects for television, corporate, entertainment and personal 3D animation.

## GVR-S950 S-VHS Single Frame Recording VCR

- Built-in single-Frame Animation Controller eliminates the need for separate or computer plug-in animation controllers. Industry-standard protocols, make it compatible with most popular graphic and animation software packages.
   SMPTE Time Code Generator and Reader with Built-in Drop and Non-Drop Frame
- Read/Write is fully programmable from an external computer and resettable from
- the froit panel.

  Video and Audio Switcher with Two independent Video and Audio Channels.

  Each video channel contains both composite and S-Video inputs. Each audio channel contains two linear and two Hii-Fi inputs Switching can be performed. either manually, or under RS232 or RS422 control. Video and audio channels
- are witched independently letting you perform break-away edits.

  Auto-Sensing Single RS422/RS232 Input eliminates the need for optional external interfaces. Interface requirements are automatically sensed and adjusted within the recorder.
- Input and Playback Video Processing allows adjustments to the video level of the incoming signal. Signal levels and hue can be

## Limited availability of like new "B-stock" ......only \$1495.00

# GVR-S955 S-VHS Single Frame Recording VCR

All teatures of the GVR-S950 PLUS — The GVR-S955 contains an on board two input audio/video switcher. Unlike the GVR-S950. the GVR-S955 can be programmed via the RS-422 bus for complete audio/video breakaway editing. As a result of this "audio/video breakaway" feature, time code can be added to tapes with exisiting video.

# PROCESSING SYSTEMS INC.

## **DR-2150** Personal Animation Recorder

The DPS OR-2150 Personal Animation Recorder is designed to record computer animation sequences directly to a hard drive and then play them back in real time. The DR-2150 is a card that play directly into an Amiga expansion slot and replaces both the single tranne record VCR and the single frame controller. But edits, missed frames, tape dropouts and other mechanical glitches common to traditional VCRs are a thing of the past.

\* Combines custom ICs and a proprietary implementation of the LSI clip set enabling component 4:22 digital recording to a descicated hard drive.

- The hardware adaptively samples each new video image to The hardware adaptively samples each new video image to determine optimum quality. Although standard compression ratios don't apply you can expect four to five minutes of high quality playback from a dedicated 540 MB hard drive. Has composite, S-Video and component (Betacam/MII) out-
- puts. Also has a genlock input enabling it to be easily integrat-ed with virtually any video production system.
- Offers multiple outputs; Can output animation as composite, S-Video and component (Betacam or MII). Also includes a genlock input which enables it to be easily integrated with virtually any video production system
- trainy any video production system

  Variable speed playback lets you play back 24-bit (16.7 million
  colors) animation in real-time 30 frames per second, or you
  can choose a lower frame rate to play back animations in slow
- norman Sopports direct rendering of all common image formats including 24-bit IFF and Video Toaster frame store files and is fully compacible with all popular animation packages including Morph Plus, Lightwave 3-D, Fractle Pro, Imagine, Vista Pro,
- and Cinemorph.

  Real-time video capture for rote-scoping and other video capture applications is possible when used in combination with a DPS TBC IV card.

## VR-2500 Digital Video Recorder

The PVR-2500 offers powerful features for awesome animation, morphing and rotoscoping capabilities. With features like 720 x480 resolution, 10-bit 2x oversampled video encoding, better than D1 scaling, component and S-Video outputs, multi-processor support and FAST SGS-12 hard drive controller, Perceptic empowers your computer to rival the linest professional prodoction studios.

- The PVR-2500 is a full-length PCI card with a SCSI-II interface which connects to one or up to seven dedicated hard drives. Because the SCSI controller is integrated with the PVR-2500, video data never has to move over the PCI bus during playback. This avoids the bottlenecks found in sys-
- tems which use the computer's hard drive for video storage. Designed to run under Windows NT 3.5 on computers employing 486 (DX2-66 or higher) Pentium, DEC ALPHA or MIPS processors. Perception's software utilizes NT 3.5's native support for multitasking and multiple processors, allowing use with the most powerful computers.
- allowing use with the most powerful computers.

  Perception's exclusive multi-format virtual file system allowing use with the most powerful computers.

  Perception's exclusive multi-format virtual file system ensures complete integration with your existing Windows MT applications. Any acquired video or computer generated Perception video clips appear simultaneously in many different file formats including TARGA, SGI, BMP and TIFF. Also compatible with new NT versions of Lightwave 30, 30 Studio, TOPAS 5.1 Pro, Softlamage and Elastic Reality.

  Video output section utilizes 10-bit 2x oversampled encoding and provides broadcast quality CCIR-601 (720 x480) resolution. It's dynamic range is in excess of D1 scaling so that images are brighter, have more color and greater spatial resolution. Component, composite and S-Video outputs are provided via the included breakout cathles.

  Use with any compatible sound card while synchronization of audio and video is maintained by the PVR software. Captured audio is stored on the computer's system hard drive, not on the deficated rives. This approach provides maximum flexibility for manipulating audio and video during editing.
- for manipulating audio and video during editing



- video to 24 fps film rates or vica versa.

  Perception controls BVU protocol VCRs for video acquisi-
- tion. VCR-like controls on the Perception's GUI simplifies the task of batch digitizing and recording. In this mode, reads SMPTE time code from the source deck
- Drivers for Windows 3.1 are supplied as well so third party editing software like Adobe Premier can be used. In fact the PVR-2500 bundled with the AD-2500 capture card, a sound card, editing software and one or more SCSI hard drives becomes a non-linear editor of unparalled per unbeatable price
  - AD-2500 CAPTURE CARD
- The optional A2-2500 is a video capite daightercard, that transforms Perception into a digital video recorder. The A2-2500 has component, composite and S-Video inputs for real-time recording and storage canacity is limited only by the size and number of attached SCSI hard drives. Captured video can also be exported as sequential RCB files for roto-scoping and other compositing applications.

  The AD-2500 incorporates a sophisticated automatic entropy prediction circuit that analyzes the content of incoming video and dynamically calculates the optimum amount of compression on a field-by-field basis—even during real-time recording. You also have complete manual control over compression level/quality settings.

### Turnkey PVR-2500 Animation and Video Editing System;

Additional Options: Windows NT 3.51 operating system software, Newtek Lightwave 3D 4.0 animation software

#### PROFESSIONAL VIDEO TAPE





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# SAMSON

#### **MR-1 Wireless System**

- The MR-1 micro receiver is a professional VHF wireless receiver measuring less than 4" long and 2" wide.
   FCC licensed in 14 channels from 174 MHz to 213 MHz.
   Truly switchable balanced mic level (600 ohms) to
- unbalanced (-10 dBm) output.
- dbx noise reduction to simultaneously increase dynamic range and eliminate noise

- range and eminimate noise.

  Receiver squelich, level & headphone level output controls

  Gan be powered by a 9V battery for 10 hours.

  SH-2 hand-held transmitter can be used with mic elements
  like Shure SM 58 dynamic mic or Audio Technica Pro 4.
- . ST-2 (L) body pack transmitter can be used with leading lavalier mics like Sony ECM-144 or Audio Technica 831.

#### **Lavalier (clip mic) Systems**

• ST-2(L)ECM-144 Transmitter with Sony mic & MR-1 Receiver
 ST-2(L) ECM-44 Transmitter with Sony mic & MR-1 Receiver ......

• ST-2(L) AT 831 Transmitter with Audio Technica 419.95 unidirectional mic & MR-1 Receiv

### **Hand-Held Systems**

- SH-2/PR4 Audio Technica Dynamic mic element & 369.95 SH-2/58 Shure SM58 Dynamic mic element &
- MR-1 Receiver

  MR-1 Receiver

  MR-1 Receiver 434 95

#### **SUPER TD SERIES TRANSMITTERS**

For the serious professional who wants true step-up quality features. Lavalier (clip mic) systems each includes:

#### MR-1 Micro Receiver, TX-3 Body-Pack nsmitter, Lavalier Mic with Multi Pin Plug

Sony ECM-144 .. ......507.95 Sony ECM-44...... 653.95 Sony ECM-77..... 747.95 544 95 Sony ECM-55 ...... Senheiser MKE-2....





#### MKE-300 Short Shotgun

- Lightweight electret condenser mic to support the excellent video capabilities of most camcorders with the superior audio they deserve.

  Ideal for mounting on camcorders with an integrated shoe assembly and an extremely lightweight compact design. Tight, supercardioid polar pattern has the ability to pick up only those sounds that correspond to the scene being filmed and rejects any disturbing ambient noise.

  Integrated wind screen eliminates handling and wind noise, the contraction of the contraction

#### **K6 MODULAR ELECTRET MULTIMIKE SYSTEM**

This rugged system has separate capsules and a powering module that can be combined to produce a wide variety of microphones. In converts quickly from one type of microphone in convents quickly from one type of microphone to another by simply threading together various system components. All capsules use back-electrate technology for uncompromised quality. Output of the powering modules is balanced, low impedance (200W) and terminates in a standard 3-pin XLR connector. The K6 series was designed to bring studio quality sound to the broadcast and field recording market. The K6 power supply can accept microphone capsules ranging in polar pattern from ommidirectional to highly directional shot-gun, as well as special application lavalier microphones.

Microphone handgrip and power supply capable of battery/phan-tom powering all microphone capsules in this series. One "AA" battery supplies power for approximately 150 hours or phantom power (12-46 volts). The K6 power supply has an integrated base roll off switch and on/off switch with LED indicator for battery 2.19.56

Short shotgun capsule. All sound coming from the rear and sides of the ME66 is greatly attenuated, thus allowing this microphone to pick out specific sounds in noisy environments. Great for back out specific sounds in so interviews in crowded situatiens, as a camera microphone for electronic news gathering (ENG), for unobtrusive theater sound reinforcement and as a podium mic. Frequency response: 50-20KHz ± 2.5 d8..... ME66 with K6 Powering Module

MEG2

Omnidirectional capsule. Very broad and smooth frequency response, without proximity effect. Its low handling noise and integrated pop screen make it ideal for interviews and live recording, Frequency response, 20-20KHz ± 2.5 dB ....139, 95 ME62 with K6 Powering Module ...349, 95

# **MICRO SERIES 1202-VLZ**

#### 12-Channel Ultra-Compact Mic/Line Mixer

Usually the performance and durability of smaller mixers drops in direct proportion to their price. Fortunately, Mackie's fanatical approach to pro sound engineering has resulted in the Micro Series 1202-VLZ, an affordable small mixer with studio specifications and rugged construction. It delivers no-compromise, non-stop, 24-houra-day projessional duty in permanent PA applications, 17 and radio stations, broadcast studios and editing

- NEW! MS 1402-VLZ
- outy in permanent PA applications, I vi and radio stations, broadcast studios and estimp
  swites—where nothing must ever go wrong.

  \*Working S/N ratio of 90dB, distortion below 0.025% across the
  entire audio spectrum and 428 dB balanced line drivers.

  \*A mono channels with discrete, balanced balanced mic/line
  inputs and 4 stereo channels (12 inputs total).

  \*Line inputs and 4 stereo channels (12 inputs total).

  \*Line inputs and 4 outputs work with any line level, from instrument level, to semi-pro -10dB, to professional +4dB.

  \*Switchable phantom-powered (48v) inputs for condenser mics.

  \*Every input channel has a gain control, pan pot, low EQ at 80

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  \*Every input channel has a gain control, p

### 14 x 2 Compact Mic/Line Mixer

Mackie's fanalical engineers have done it again. Balanced inputs and outputs, 3-banc EQ, AFLPPL and deluxe tape monitor/Control Room leature. Nice long 60mm laders six studio-quality. mic preamps and extra All 3-4 stereo bus—in less than 1.3 square

- eet of space. Studio grade mic preamps (chs. 1-6) with high headroom, low noise and phantom power. Also incorporate low cut fil-ters to cut mic handling thumps, pops and wind noise. Lets
- you safely use low shelving EQ on vocals.

  Trim controls (ch. 1-6) with ultra wide range (+10 to -40dB) Imm controls (ch. 1-6) with ultra wide range (+1 0 to -4008) handle everything from hot digital multitrack feeds to whispering lead singers and older, low output keyboards.
   Pan control with constant loudness and high L/R attenuation so you can pan hard left or right without bleed-through.
   Two aux sends per channel with 15dB extra gain above Unity.

- 60mm log-taper laders are accurate along their whole length of

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- 60mm log-taper taders are accurate along their whole tength of travel and employ a new fong-wearing contact material for longer tader the & uper resistance to dust, smoke etc. Control room/phane matrix adds incredible tape monitoring, modown and the sound versalitit y.

  Mute switch routes of shannel output to extra ALT 3-4 stereo bus. Use if for feeding mylititack reporder channels, creating a subgroup via spinterioromyphones matrix, monitoring a signal before bringing in the the main mix or creating a rink minuse.

  Solid steel chassis instead of aluminum or plastie.

The new MS-1202, 1402 and 1604 all include VLZ (Very Low Impedance) circuitry at critical signal path points. Developed for Mackie's acclaimed 8-Bus console series, VLZ effectively reduces thermal noise and minimizes crosstalk by raising current and decreasing resistance.



## NEW! CR-1604 VLZ 16-Channel Mic-Line Mixer 16-Channel Mic-Line Mixer

The hands-down choice for major fouring groups, studio session players, as well as broadcast and sound contracting. The new CR-1604 VLZ features everything you would expect from a Targer console, and then some! 24 usable line inputs with special headcroom' ultra-low noise Unitypuls circularly, seven, 41X, sends, 3-band EQ, constant power pan controls, 10-segment LEO output metering & disserted front end phantom-powered in 108 d8 dynamic range). Many drummers consider it the only mice capable of handling the attack and transients of acquisite one of the control of the co

- and electronic drums.

  Genuine studio-grade phantom powered, balanced input mic preamps on channels 1-6. All CR-1604 VLZ (and opkopal XLR10 for ten more) discrete input mic preamp stages incorporate four conjugate-pair, large-emitter geometry transistors. So, whether
- recording nature sound effects or heavy metal, miking; fulles or kick drums, you get the quietest, cleanest results passible.

  True 4-bus design with channel assigns to 1-2, 3-4 primain L-R.
- ont end phantom-powered mic inputs.

   3-band EQ with mid-frequency sweep and
- low cut switch.

   AFL/PFL solo and mute switches with overload and signal

wered mic inputs

PROPERTY NAMED IN

- present indicators.
  Rear panel features include insert points and 1/4-inch /XLR connectors on every channel, as well as RCA tape
- inputs/outputs.

  New, standard size channel trim pots are found at the top of each phannel.

  - Rotary input/output "pod" allowing three different positions

# AZDEN PRO SERIES VHF WIRELESS MICROPHONES

The AZDEN PRO SERIES brings you high performance VHF wireless at an alfordable price. Built around a two-channel design they allow selection of a frequency for the cleanest signal - delivering clean, reliable RF performance for up to 250 feet. The Pro Series includes handheld and lavalier mic systems as well as the WMS-PRO which includes a lavalier and handheld mic.

#### COMPLETE SYSTEMS **WMS-PRO**

- Professional VHF wireless system with 250 ft. range Two switchable frequencies (169.445 and 170.245 MHz) Includes handheld and lavalier mic for extra flexibility Compact transmitter attaches to belt or fits in a pocket

### **WLX-PRO**

#### WHX-PRO

- Handheld microphone with built-in transmitter
   No wires, no beltpack, no tangle-hassle free
   Operates on one AA battery for up to 8 hours
- Has a combination on/off-mute switch for quiet switching
   Includes shoe mount, velcro, earphone monitor.....189.95

# **PRO SERIES COMPONENTS**

### WM/T-PRO

#### WR2-PRO

- you to use any two Pro
- Series mics simultaneously.

   Each transmitter can be 10 to 250 ft. from the receiver.

   Size of a cigarette pack the WR2-PRO mounts on a camer.

### 111 PRODUCER SERIES

Designed for professional videographers who need expellent audio reproduction, the 111 Producer Series is a professional VHF wireless microphone system that delivers excellent RF performance and wide frequency response - even under adverse conditions. Available in 10 fre-quencies, the Producer series has a range of 30° and is attered in handheld lavaller or plug-in systems. Each Producer series system comes packaged in a black leatherefte carrying case

## 111R RECEIVER

The heart of the system, the 111R Receiver features output volume adjustment, balanced or unbalanced output capability and adjustable mulefsquetch. It also has headphone output with volume adjustment, removable rubber ducky antenna and 9volt battery or DC 12vott power input, it includes a mini-min output cable, with mini to XLR & mini to phone plug, available as options.

## 31 HT HANDHELD TRANSMITTER

- High qualify underctional dynamic element
   Unique rubber-coated durable ABS housing for comfortable teel and tow handling noise
   Has 3-position power switch with standby for muting the audio
   Supplied with additional range-extender antenna

## 31 LT LAVALIER BODYPACK

- Choice of high quality plug-in omni or uni-directional el tret condenser microphone
   Ingut level control for maximum flexibility
   Constructed of durable ABS housing
   3-position power switch with standby for muting sudio
- 31 XT PLUG-IN
- Unique plug-in transmitter turns any dynamic "wired" microphone with XLR output into a wireless
   Full range of on-board controls, including power on/off.
- audio mute and status LED Input level control for maximum flexibility

NRG power belts are the ultimate power solution. They provide the power to run lights, camcorders and decks without the lear of shutdown. Advanced high-certaly nicod power cells provide the lightest veight and longest service life of any power products made. Innovative leatures such as dual power outputs, power indicator, removable packs, plus accessories like high-speed chargers, solar panels and high-current cables combine to form the complete power solutions for any kind of users.



## 880 Power-Pro +

- \* High capacity quick-charge capable 12-voit 10-amp sintered mead power pack (removable).

  \* Power chassis with dual 3-pin XLR inputs allows for pack interchange without shuldows.

  \* 2500-eyele cell like provides lowest cost per cycle.

  \* Micropropossor-controlled 5-step multi-color power indicator display.

  \* Bett with cellipack weighs only 4.9 lbs for all day comfort.

  \* Dard outputs allows smultaneous powering of two devices leg, camera and light). Output configurations include caparette leghter and 4-pin.

  \* XLR in any comessation.

  \* Charge in under 2-hours with the optional 550-til charger.

  \* Includes Power-Prob bett and power chassis, 12-volt 10-amp sell pack, model 600 quernight charger and comprehensive owners \* manual, Fins waits size 39'-40'.

  \* (Available in large size 40'-52' if needed).

## 970 Power-MAX

- Same features as 880 Power-Pro Beit Prass• Nightest capacity quick-charge capable 12 Volt 14-AMP sintened miset power pack (removebb) and the second power pack (removebb) assertions of the second power pack (removebb) assertions of the second pack of the s

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Provolutionary new NN6 Vara-Lie
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- light upper and recubes gard water considering the light intensity.

  Sturdy all-metal click hit mounting bracket with ratchet action. Elimantes shake under action shooting conditions.

  Optional barn doors enhance light control capabilities.

  Front retainer assembly pops off for instant bull access without the bother of screws.

  Ruggeon milled aluminum light head disperses heat and provides years of service under adverse conditions.

# POWER STATION-2 SERIES

Just plug the PowerStation-2 into any AC outlet in the world and out comes perfectly regulated 12-voll QC power through four 4-pin XLR connectors and one cigarette lighter contect-for. It uses an advanced pulse-width-modulated power supply which allows for ultra-light weight and small size. It operates with lattle heat even at full output. The PowerStation-2 is the ultimate multiple-output professional power source for cameras, deeks, lights, monitors, and a host of other



- 85-254 wills worldwide auto-adjusting input (just plug in).
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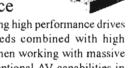




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4221AV*	2.05GB	8.9ms	7200rpm	Fast SCSI-2
3243AV*	4.29GB	8.9ms	7200rpm	Fast SCSI-2
1991AV*	9.09GB	12ms	5400rpm	Fast SCSI-2
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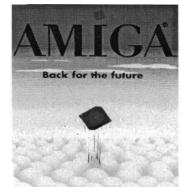
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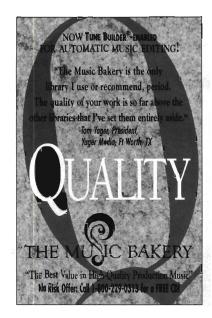
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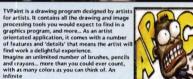
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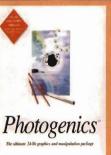
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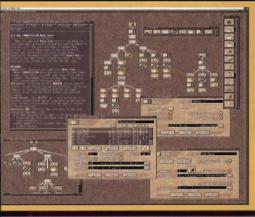


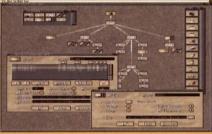
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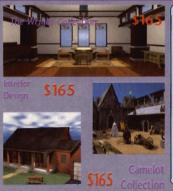
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## **LAST WORD**

## **Hold the Anchovies**

## An Italian Look at This Summer's Movies







ou walk into a pizzeria in an unfamiliar neighborhood. You order a slice with pepperoni, onions and (your favorite) anchovies. During the wait, that oh-so-delicious smell floats out of a brick oven and gets you psyched up for one delicious pizza. A few minutes later you pop that puppy into your watering mouth and start to munch down on what you hope will be the dining expe-

rience of a lifetime.

But something is wrong. It doesn't taste right. The pepperoni is spicy, the onions are eye-watering, the anchovies definitely announce their wonderful presence—what could it be? You take another bite and everything suddenly becomes clear.

The pizza itself sucks!

The cheese is bland, the bread is stale and the sauce is one step below Ragu. Despite all those delicious toppings, you learn the hard lesson that no amount of spicing up can make a bad pizza good. Those basic elements of cheese, sauce and bread are what makes a great pie, regardless of what you put on top of it. It's a crime how many pizzerias overlook this simple fact!

Without going too far out on a limb, I'd wager that the pizza shop in question was owned by a major motion picture studio. Just substitute the words story for cheese, characters for bread and drama for sauce. The toppings? Special effects, of course! Without a doubt, this summer has certainly been the season for bad pizzas. Let's take a look at a few of the recipes:

### Sausage and Garlic on Balsa Wood: Twister

This movie has to be the most bizarre combination of hot and cold I have ever experienced. The special effects are perhaps the best ever and provide us with some of the most visually unique and dynamic scenes put on film to date. The movie itself, however, is pure crap. Never before have I witnessed such a travesty of screenwriting (the opening night audience in Hollywood sat through the credits so they could specifically boo Michael Crichton's name). Obviously, no one bothered to read this script before shooting began. The story is so formulaic that a rutabaga could have stayed one step ahead of it. Speaking of vegetables, I've met mashed potatoes that had more life than the denizens of this film! None of the characters managed to hold my interest and their predictable plodding through the infantile story made the Twister itself the only thing worth rooting for.

### Meatballs on Wonder Bread: Dragonbeart

Take one average two-star movie, add a spectacular computer-generated character complete with a mega-

celebrity voice and voila! You still get a two-star movie. Sure, the dragon was *que magnifico* and had the audience gasping in disbelief—but only for the first ten minutes. After that, you accept the dragon as a character and not a special effect—that is, a character with cheesy dialogue, no depth and a real knack for scenery-chewing. If the movie had been called *Dogheart* or *Walrusheart* and didn't feature a computer-generated character, I don't think anyone would have gone to see it. In fact, given the quality of the script, it wouldn't have gotten made.

## The Most Incredible Topping Ever on the Plainest Pizza Ever: *Independence Day*

I dare say there hasn't been this much anticipation for a movie since Return of the Jedi. With the promise of invading aliens, exploding cities and monster doglights, how could you go wrong? Actually, that final Star Wars movie could have been the blueprint for ID4-as long as you have lots of distracting special effects, who needs to worry about the story? Not that ID4's story was badit definitely worked—but it was extremely basic, predictable and lacked any real drama or suspense. Nothing made me cringe (well, maybe the whole virus thing) but nothing surprised me or made me think, either. Don't get me wrong—I did like the movie—but consider how absolutely fantastic it would have been had anybody taken the time to refine the story as much as they did the FX. Alas, another slice of pizza with wonderful toppings on an average pie.

Perhaps the best "big" movie this summer has been *The Rock*—and it didn't have any dragons or windstorms or exploding cities! Just a car chase and a few gunfights. But you know what it did have? A good story with twists and surprises! It had characters with depth and motivations I could relate to. Were the FX the best I've ever seen? No. But they took a damn fine slice of pizza and threw some very nice toppings on it. Unfortunately, those other pizzerias aren't going to learn a thing since people are still lining up for blocks just to get a taste of their over-hyped menu.

But that's OK. Every now and then, everyone orders a pizza with no toppings and they suddenly remember just how good a regular pizza can be. After that, it's hard to go back to the shoddy stuff, so don't be surprised if more and more people start asking their movie studios to hold the anchovies!

## EDITORIAL EVALUATION

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