

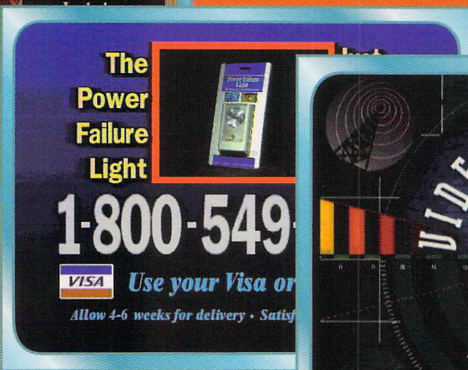
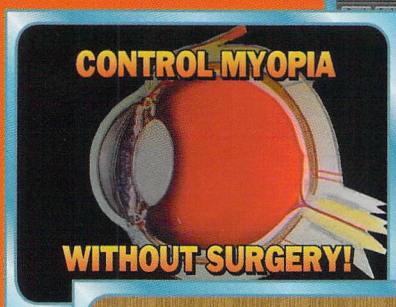
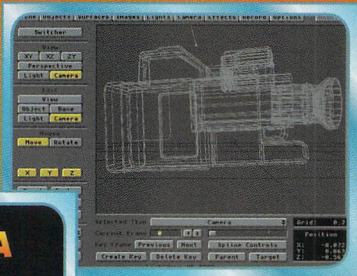
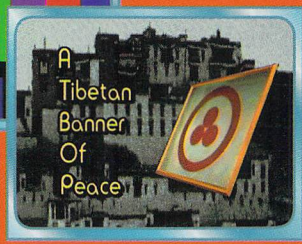
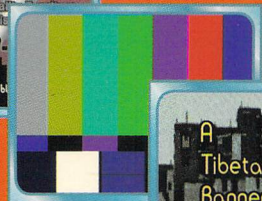
Complete

# POST PRODUCTION

WITH THE

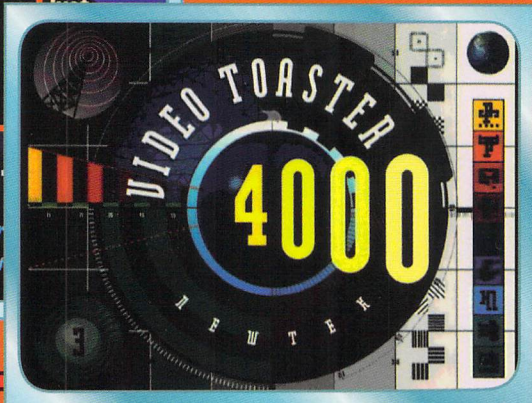
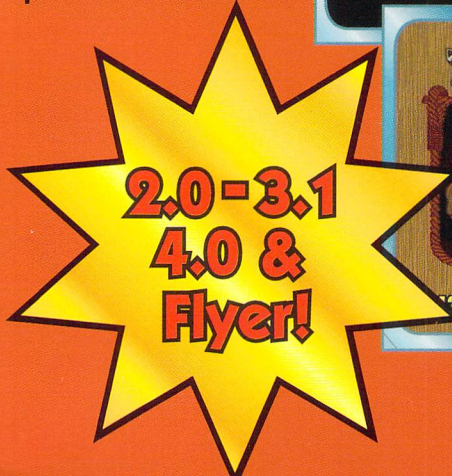
# VIDEO TOASTER

Professional techniques and tutorials you can put to use instantly to make money as a Video Toaster post production professional!



Real-world tutorials in Toaster Post Production for

- ★ Corporate Videos
- ★ "How To" Training Videos
- ★ TV Commercials
- ★ Special Interest Videos
- ★ Documentaries



By Burt Wilson





# COMPLETE POST PRODUCTION WITH THE VIDEO TOASTER

By

**Burt Wilson**

*Happy Easter Postings!*  
*Burt Wilson*

**The Burt Wilson Company**  
690-A Los Angeles Ave. Suite #303  
Simi Valley, California 93065

# DEDICATION

To my beloved Guru, Friend and Teacher

**Ralph Harris Houston**

Who predicted I would write this book

# ACKNOWLEDGMENTS

First, to **NewTek and Tim Jenison** for starting the video revolution with the introduction of the **Video Toaster** and then continuing to spread the concept of personal video production through the introduction of the new **Video Flyer**

To **Jim Plant, Michael Kornet** and **Video Toaster User** for all their encouragement

To **Lee & Kathy Stranahan** for starting the Toaster User Group in Los Angeles and for their continuing help

To **James Hebert** for his technical editorship and support

To **Rick Simonton and Bob Grant** for their contribution of video savvy

To my Toaster buddies, **Ernie Potvin** for the cover and graphics advice, **Tony Gomez** for proofreading and tutorial testing, **Myke Muller** for Flyer screens, and my son **Steve Wilson** for final proofing

To **Mike Donahue** of K-J Computers for files transfers and to **Robert Wilson** of The Connecting Point for Flyer input

and to all the wonderful Video Toaster users in the **Los Angeles Video Toaster User Group**

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# FOREWORD

My main motivation for writing this book is to empower those of you who want to take part in the video revolution. This revolution began with the introduction of the first Video Toaster by NewTek in 1990 and is continuing right up to this writing with the long-awaited introduction of non-linear editing with the Video Flyer. And there is no reason to suspect that it will ever let up in the near future. I believe this book will help you to become more proficient in using the Toaster in the post production process.

I have been using the Toaster since early 1991 and have been giving seminars and teaching others how to use it in the editing and post production process for the last three years. What I have learned during that time and what I will impart to you in this book comes from the real-world of daily video and commercial TV production. This is not just a book of hints and tips, but a complete guide to setting yourself up in business as a post production house centered around the Toaster. I believe the guidance offered here will help you not only to make more money in post production, but perhaps even earn a living at it, as I do.

I've put 30 years of experience inside these pages. I've tried to cover all the essentials of video production with the Toaster so you can use this as a kind of handbook or guide to operating your own business. Even if you are already a Toaster professional, I am sure you will learn many useful things by the end of the first reading. Chapter 10 alone, I've been told, is worth the price of the book many times over.

I laid out this book myself using Pagestream2 for everything. I could have published it as a pocketbook of about 250 pages in 10 pt. type, but I chose to do it in an 8 1/2" x 11" format and use 12 pt. type. That makes the tutorials easier to read and allows the book to lie flat on whatever surface you put it on.

At one of the early Toaster User Group meetings in Los Angeles, Lee Stranahan, the founder of the group, made a remark which has really stuck with me. He said, "You'd better learn this stuff good, because in five years you're either going to be doin' it or watchin' it." That admonition is even more relevant today than it was four years ago, so I urge you to become one of the "doers." I am also a firm believer in synergy and I think the more we share with each other, the more we are able to draw from the whole body of work. This book is my contribution to that body of knowledge. I readily admit that I have learned much from others and I am very grateful for their help.

I hope this book helps you.

**Burt Wilson**

Simi Valley, California

April 26, 1995



# CHAPTER I

## Welcome to the Revolution

**R**evolution. It's a word that is so often misused. It seems like every time a manufacturer introduces a new product they tell us it's going to revolutionize the way we think, work or behave. But there is so much astounding technology packed into the Video Toaster and the Video Flyer that I think many of us have a little trouble comprehending the extent of the revolution that this phenomenal combination of hardware and software has sparked. I'm talking not just of a technological revolution, but of a societal one as well.

Society receives most of its news through television. Like it or not, this trend will become only more irresistible as the legendary Information Superhighway and 500 channel cable television systems near reality. The best characteristic of the Video Toaster and Flyer--the dream that drove Toaster visionary Tim Jenison in the first place--is that this technology gives each of us the opportunity to participate in and even shape this revolution; and it allows us to do so on a level that rivals the capabilities of the deep-pocketed networks and major production companies.

I know that's heady stuff, but I bring it up for good reason. As a video producer, you have to start thinking big. You have to understand that with the Toaster and Flyer, your imagination is your only limit. It doesn't matter if you're adding them to a high-priced post production studio that's already full of high-end special effects machines, or if you're just a guy or gal starting out with a simple personal production video setup, the end result is that they will enable you to produce professional, eye-catching video that can compete with the best of 'em. But that's not all!

The Toaster and Flyer have leveled the playing field in the video production industry.

Equipped with these low-priced behemoths, we independent video producers can now compete with the big post-production studios and deliver the same quality for a fraction of the cost. What costs the big guys thousands to produce, we can do for pennies with frame-for-frame quality that matches the product of the best studios in the business. When you hear someone say, "The Video Toaster is really a \$100,000 special effects machine in a box," believe it! When you hear someone say, "The Video Flyer is as good as non-linear systems that cost up to 15 times as much," believe it! That's the honest-to-goodness reality of the technology NewTek places in your hands. And you can make it start paying for itself the minute you install it.

### **How the Video Toaster can make you money, not cost you money**

Allow me to give you a personal example concerning the Toaster. I'm an independent producer/director/editor. Before the Video Toaster came along, I was busy producing 10-12 minute "how to" productions for such clients as Campbell's Soups, Manville Insulation, Sterling-Kinkhead Faucets and Shower Doors and others. In round numbers, I was charging a very competitive \$1,000 a finished minute for my work. That gave me a \$10,000-\$12,000 budget to work with to produce a 10-12-minute segment. On average, I would take home about \$3,500 after paying for the equipment, the crew and the editing facilities. Not bad. I was doing 15-20 productions a year and making a good living for myself.

Of that typical \$10,000 production budget, nearly a third--about \$3,000--was spent at a big Hollywood post-production house where I did my final on-lining. Let's face it, clients demand all the

latest bells and whistles and special effects, so you have to include them in any production. At this facility, the cost to produce special effects such as page-turns and fly-ins on their Ampex Digital Optics (ADO) machine ranged from \$400 to \$600 an hour. I gladly paid for these sessions, satisfied that I was giving my clients top quality at a decent price.

Then, early in 1991, I bought my first Video Toaster and immediately integrated it into my production process. I found that I could take the Toaster to the 3/4" SP studio where I did my on-

lining, plug it into that system and produce all the special effects, titles, graphics and superb moves that I needed at just \$90 per hour. I didn't have to go to the big Hollywood post-production facility at all, and

my clients were elated to have such effects as screen roll-ups, crazy fly-ins and even a wipe featuring interlocking gears.

The bottom line: I was able to nearly double my net income and still provide my clients with high-end special effects. I was now pocketing \$6,000 and more out of every \$10,000 project, I won three 1992 "Telly" awards and another one in 1993 and my clients were more impressed than ever. Needless to say, my Video Toaster paid for itself on the first project out of the box!

The best, however, was yet to come! I had an old 3/4-inch cuts-only editing system which I used for off-lining purposes set up in the second bedroom of my two-bedroom condo. I also had a very good 600-line Ikegami 3-tube 730 camera,

which I used as a back-up or second camera on shoots, an old Sony 4800 3/4" deck, which I used to record time-coded window burns during a shoot and a small Lowell light kit. I looked at this rudimentary setup and thought, "Hey, if I add the Video Toaster to this, I can shoot and post my own productions and commercials right here!"

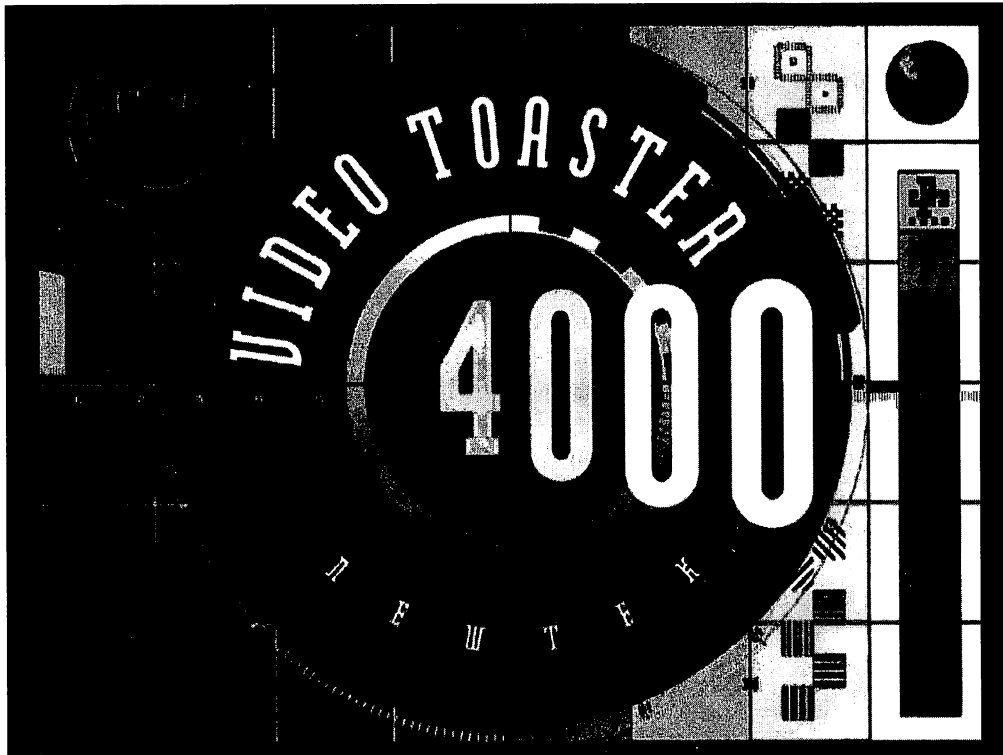
So I spent a few bucks and retrofitted my old Sony 2860 editing system with new heads and assorted parts that put it in darn near frame-accurate condition. Sure, it was slow but it was broadcast quality! Then, I bought Electronic Arts' Deluxe

Paint, ASDG's Art Department Professional, Axiom Software's Pixel 3D, J E K Graphics' ProFills and various other scenic and graphic programs. Suddenly, I went from being the owner of some out-

dated 3/4-inch video equipment to being the owner of a self-contained 3/4-inch studio and post production house!

Next, I visited the local cable systems in my area, dropping off demo tapes and informing their sales people of my availability for commercial shoots. The work started to come in after just a few days and it has not stopped. Now, I can go out during my downtime between bigger-budget "how to" shoots and do 3/4-inch cable TV commercials for anywhere from \$500 to \$1,000 per commercial, depending on the complexity of the script.

Cheap? You bet. But it's broadcast quality! That's why the phone keeps ringing and I get a lot of business. Let's face it, if I can take my camera and deck out and shoot a commercial in the morn-





ing and come back and use the Video Toaster to put it all together in the afternoon, I can make \$500 or more a day! In some more affluent areas, I can get away with \$1,000 a pop. Do that just 25 days each year and we're talking about an extra \$12,500 to \$25,000 in income from what normally was unpaid downtime. Do it twice a week and you're making a living!

The Video Toaster made all this possible for me. It can do the same and even more for you. Sure, you'll run into people in the business who will say, "Look how pixelized that picture is in that Toaster transition." True, the Toaster's transitions aren't as clean as those of a high-end switcher. But it has been my experience that the people who knock the Video Toaster most often are those who have millions--yes millions--of dollars tied up in big-time post production facilities. And here you are doing most of the same things for a few grand! Imagine the look on the accountant's face at that big Hollywood post production facility I used to frequent when he sees that my billings have dropped from \$30,000 a year to zero. No wonder a lot of people in the biz howl about the Toaster. They have huge investments to protect!

## **The Video Toaster gives you professional production quality**

The truth is, whether you have Toaster 2.0 in an Amiga 2000 or 2500--or the new and improved Toaster 3.1 to 3.5 in an Amiga 4000 or other models or Toaster 4.0 and a Video Flyer--you've got a tool designed to turn a low-cost, cuts-only editing system into a competitively viable hot-shot post-production facility. The Toaster's dazzle more than makes up for its minor deficiencies. You may not realize it, but the Video Toaster and Flyer make you a player. You don't have to take a back seat to anyone.

All this, and we haven't even mentioned LightWave 3D yet. It's ironic, but LightWave 3D is so powerful that its bundling (up to this year) with every Toaster system seems to have overshadowed the Toaster's impact as a high-end professional video post-production tool. Believe it or not, there are people who have purchased a Video Toaster and have never even used the Switcher. They bought the Toaster just for LightWave 3D! On the other hand, guys like me who are into using the Toaster mainly for post-production hardly ever touch LightWave--and we still think the

Toaster's the best video bargain on the market--even more-so now with the introduction of the Flyer. If I ever get the time to learn LightWave 3D completely, I guess I'll have it all! But LightWave 3D is a whole other tutorial and there are a lot of good books on three-dimensional animation.

Our purpose here is to stick to the Toaster as a post production tool--the center of your editing system--and its use in putting together professional-looking projects, whether TV commercials or lengthier videos. In any event, NewTek is now marketing LightWave 3D apart from the Toaster which, I think, is testimony to the Toaster's importance as a post production tool.

## **Everything you learn here about post production with the Toaster is applicable to the Video Flyer**

This book is designed to get you up and running on post production with the Toaster and Flyer as soon as possible. I'm sure all of you want a Flyer, but most of you probably don't have one yet. No problem here. Everything you will learn about post production with the Toaster in this book can be applied to the Flyer. That's because the Flyer does everything the Toaster does, but does it in a non-linear manner. The tricks, tips and tutorials you learn here will work the same way when you're posting on the Flyer. Think of this book as dealing with *principles* which can be applied to any Toaster/Flyer system.

The quicker you get posting on the Toaster, the quicker your Toaster will start paying for itself. That's the objective here: to put you in the real-world of video post production so you can make money at it. We've also included real-world tips and tricks on acquiring video and give you real-world rationales for finding the right editing tool for the right editing job. I think there's nothing more frustrating than having a whole bunch of technology at your disposal along with pages of tutorials on how it works but nothing at all on why you should use a certain effect here and another effect there. Believe me, you will get lots of "whys" and "wherefores" in this book!

Whether you're already a professional producer/editor/post production guy or gal or even an amateur just starting out, I think you'll find this book--like the Toaster itself--will pay for itself from day one. Because regardless of your level of expertise, this book will help you think

about post production in a direct relationship to the Toaster. My aim is not only to help you put dazzle in your productions, but also to get you thinking in terms of the Toaster as part of your pre-production planning. I even include a sample contract that you can use right away.

I know how excited you are to get to the tutorials and to get started using your Toaster in post production. I guarantee you your excitement will grow as you go through this book. The power you are going to have at your disposal is immense and we'll help you unleash it all so you can quickly join the revolution and not just watch it from the sidelines.

This book will give you all the knowledge you need. The rest is up to you!

So... ready...roll tape...speed....ACTION!

# **ATTENTION PRESENT AND FUTURE VIDEO FLYER USERS!**

**All of the Toaster tutorials in this book are applicable to the Video Flyer. The Video Flyer makes use of the same Toaster graphics, effects and transitions that you would normally use in linear tape editing, but puts them together in a non-linear process.**

**The only real difference is that you call-up the effects one at a time in the linear process (as you will learn in this book), while you input them all at once into a Project Screen in the non-linear Video Flyer process.**



# CHAPTER II

## THE VIDEO TOASTER EDITING SYSTEM AND PERIPHERALS

**I**t doesn't matter whether you use a camcorder as a source deck and a regular VHS video tape recorder as your edit deck or a complete Betacam A/B roll editing suite or even a Video Flyer. If you have a Video Toaster hooked up to them, you have a video editing system. And you're ready to be a part of the video revolution.

You no doubt already had an idea in mind about the type of video productions you were interested in doing before you purchased your editing system. I'd like to talk about that briefly because I may be able to save you from some big headaches. If you have not yet purchased your editing system, this discussion may be even more beneficial.

### **The two basic areas of video production**

Video productions can be divided into two basic classes: Broadcast (which includes documentaries) and Special Interest. Multimedia is a fast-closing third. The type of productions you plan to create will determine what format of video equipment you should use. If you plan to produce video for broadcast, for example, you should work in at least 3/4-inch format for Cable TV and Betacam SP/ or digital D2 or higher for VHF/UHF distribution. In some cases you can get away with 3/4 SP. I recommend getting the best system you can afford in the highest-end format you can afford. I have used the regular 3/4-inch in my own

studio for six years and have done really well with it. If a job calls for a higher format, I rent it and then rent the appropriate studio edit bay for my on-line editing. Such studios are readily available in most metropolitan areas.

When I do need to work in a format that I don't personally own, my 3/4-inch system comes in handy for off-lining. Late in 1993, however, Sony introduced a new line of Betacam SP equipment that is priced below that of its 3/4-inch SP equipment. In light of that development, purchase decisions involving new 3/4-inch SP equipment should be weighed very carefully.

Be aware, though, that many of these new products have yet to fully demonstrate their ability to take punishment and the post production process really punishes machines. Get all the information you can from users before you make your decision.

Special Interest videos--I'm speaking of "industrial," "how to" and "corporate" videos not produced for broadcast--can often be produced using Hi8 and S-VHS equipment. Since these productions are typically distributed as regular VHS cassettes, the lower quality of these formats won't be a problem. In any lesser format--including regular VHS and 8mm--the final product will probably not be commercially acceptable. You can use that format to produce weddings, however, and also some nice "artsy" things, and that can certainly be a lot of fun.

Obviously, any Special Interest video produced in a 3/4-inch or higher format will

enhance its marketability.

There is just no substitute for a wide video bandwidth when it comes to recording analog video on tape. A wide bandwidth has the ability to hold more depth of color information. That means a big difference in quality, especially when you need to go down a couple of generations in the editing process.

Digital is another story because it stores information differently. The Video Flyer and other digital non-linear systems don't have to worry about analog video bandwidth. Be aware, however, that the Flyer will not improve video of lower quality that is fed into it. This is a common misunderstanding among video non-professionals. If it's poor quality going in, it'll be poor quality going out.

## Hi-8 or S-VHS?

I know that the manufacturers of Hi8 and S-VHS equipment are fond of saying their formats are near broadcast quality and they point to the fact that a few TV stations are using them for Electronic News Gathering (ENG) and the like. They will also tell you how you can shoot and edit on Hi8 or S-VHS and then bump it up to Betacam or one-inch and you'll get broadcast quality.

The jury is still out on this one. I know more and more people are shooting with the newer S-VHS and 3CCD Hi8 cameras and editing on Betacam and they are happy with the quality of their product, but they still refer to it as industrial, not broadcast, quality.

But Sony is moving so aggressively in the Betacam SP field with its new low-end, high-quality UVW units, you might just as well forget Hi8 and S-VHS and shoot and edit all the way in Betacam! In fact, you can now purchase a used Sony BVW-537 Betacam SP camera for about the same price as some of the newer professional 3CCD Hi8 camcorders. And the BVW-537 docks to either a Betacam SP or a Hi8 recorder. That's a buying decision I'd have no problem with.

Still, there are a lot of practical and economical reasons for producing cable broadcast commercials in 3/4-inch rather than Hi8 or S-VHS. The chief reason--aside from the better broadcast quality--is that 3/4-inch is the format of choice for most of the cable systems across the country and it probably will remain that way for some time.

So, if you plan to make money producing commercials that will appear on local cable systems, I recommend sticking with a 3/4-inch or higher format. And, if you can afford it, go to the 3/4 SP format. It gives you a still higher resolution and holds color better.

## Determining video resolution

Another thing you, as a video producer, should know is that the camera does more to determine the quality of the final video product than does the video tape recorder. You'll hear that such-and-such a Hi8 or S-VHS deck has more than 400 lines of horizontal resolution and a plain 3/4-inch deck has from 240 to 320.

So what? It's the camera that counts. For broadcast quality video you need a camera that produces 600 or more lines of horizontal resolution. Of course, a camera with 700 or 750 lines of resolution is even better, but if you don't have at least 600, you will not achieve true broadcast quality.

## A tube or a chip camera?

The next question to consider is should you get a tube camera or a chip camera? I have used an Ikegami model 730 three-tube camera (saticons) for five years and it has given me great video on every project I've produced. Tube cameras are obsolete, however.

If I were buying a camera today, even a used one, I would not even consider a tube camera unless I was getting a really good price on one that I personally knew how many hours it had been in use and how good the condition was.

Even then I would hesitate before making such an investment because tubes can become damaged by bright light and burn out.

Let's face it, the world is going chips in a big way and the chips seem to just get better and better. You might as well go that way too. I must add, however, that no chip camera will ever approach the nice warm flesh tones that you get with a 3-plumbicon-tube Ikegami HL79 camera.

Another way to go is with a camera that uses digital processing. The new Panasonic 3CCD digital "Supercam" is a great way to acquire video. Even though it is an S-VHS system, you can run it into a portable Betacam deck and produce great



color images. Even better is the brand new Panasonic EV-F565 DSP camera. It has superior performance at 850 horizontal lines of resolution, a 65 dB single-to-noise ratio and 1 lux minimum illumination. Check it out!

## **Get the best video system you can afford**

The first rule a writer used to learn was to get the best typewriter he or she could afford. Today, of course, most writers use either a computer or a word processor. The rule, however, is still valid. And it's also valid for the video professionals and enthusiasts: Buy the best equipment you can possibly afford. Unlike a writer, however, you needn't be afraid of old linear tape technology.

A writer may never want to go back to a typewriter, but you don't have to be afraid of using old video editing technology. I survived for five years with a Sony 2860 editing system. It was 10-12 years old when I bought it, but it was near-frame accurate and it did a great job. In using it day in and day out, I came to understand why this system used to be the industry workhorse.

In fact, you can still find them in cable systems all over America. I put a few dollars into mine and it gave me great video for about a \$2500 investment. True, the system was slow--very slow! But so what? It got the job done.

Now I have upgraded to a better 3/4 system consisting of a Sony 5800 source deck and a 5850 edit deck. These decks are only a few years younger than the 2860's, but really fine units! If you can find a set that hasn't been abused, grab them! With a good 600-line or above camera and a source and record deck in good shape, you'll have a great linear system that will be able to produce both cable broadcast and special interest video.

## **Buying used equipment from a TV station**

One more thing. I wasted a lot of money in the beginning when I bought some used equipment from a TV station. TV stations are the last places you should look for good used equipment. Chances are, the equipment they're getting rid of was used for ENG (Electronic News Gathering) in the field. If so, it probably got bumped around and abused a lot. Ask any local news cameraman. They'll tell you that their equipment really takes a beating. What's more,

they don't toss anything out until it absolutely cannot shoot another shot. It's a good idea to avoid equipment being let loose by a TV station.

Also, cast a wary eye on used equipment you find for sale in an electronics or video store which takes things on consignment. Frequently they are dealers for used TV station equipment. Be sure to ask and get some kind of proof on the background of the equipment you're interested in. Be aware, however, that the good houses can really refurbish equipment well. Just be careful of anything that really looks banged-up!

Take my advice: if you haven't purchased your system yet, look around and ask around. Get to know somebody in the industry. Find out what different people think about equipment they work with every day. Talk to manufacturers and distributors, too, but remember their first interest is in pushing their own products. The more research you do on your own, the more comfortable you'll be when you finally decide on a system. Believe me, there's nothing worse than investing a lot of money in a system only to discover that it isn't going to do the job for you.

## **The Toaster and some of its many peripherals**

So let's move now to your Toaster. Here's something you don't have to worry about. Despite all the advertising claims by numerous other manufacturers in video magazines, there is nothing out there on any platform--be it PC-compatible, Macintosh or Amiga--that comes near the price/performance ratio offered by the Toaster. Here is real value. With the Toaster and a good editing system, you've got all you need to produce broadcast quality video.

What's more, many third-party companies have developed peripherals that augment the Toaster's functionality. These devices will improve the quality of your work and make producing commercials and videos much easier. I'm going to mention here a few of the peripherals that I have used with good results. This does not mean that because I have not mentioned something that it is not good. It only means that I have no direct familiarity with it.

To do any linear video editing, you must have a time-base corrector (TBC) installed in your platform. The Toaster and Flyer demand a synced and stabilized (genlocked) signal going through

them in order to operate properly in an editing situation. A TBC satisfies that requirement. When the TBC is installed, run your source deck output into the TBC and the TBC output to your Toaster Input #1: the input that also syncs the other three inputs. You must do this in order to edit. If you don't, your picture will look all lined and fuzzy and there will be huge criss-crossed black lines in it. I'll say it again: you *must* have a TBC in order to use edit decks with the Toaster.

When I bought my first Toaster in 1991, I had my dealer install a Digital Processing Systems Personal TBC. The board has worked very well for me ever since, even though it doesn't have as many bells and whistles as the latest TBCs. Since that time, DPS has come out with the Personal TBC II, III and IV, the latter capable of being used in conjunction with the DPS Personal Animation Recorder, or PAR.

The later models can have external controls and feature a rock-solid freeze--just what a professional needs. The DPS freeze captures one or two fields of video, whereas the Toaster freeze function captures four fields. Using the Toaster to freeze frame means that you have to use the Toaster's motion-removal process to get the image down to a single, stable one. The DPS strobe effect allows you to vary the number of frames per second of video that is recorded. The lower the frames per second, the more staccato the picture looks. You'll notice a lot of strobe effects on MTV.

Another thing: if you're going to do A/B roll editing, you'll need two TBCs, one for each deck, so be sure and check out the Kitchen Sync, a dual TBC, from Digital Creations, Inc.

The DPS Personal Animation Recorder is about the best thing in the industry right now for storing and playing back Lightwave 3D animations.

Other good TBC's I have personal knowledge about include the Hotronic AP41 and the new TBC Plus from Great Valley Products. And, as we go to press, I have just seen the new TBC from Feral Industries that allows you to compress video in real time with no pixelization and move it as a window around the screen.

The factors that will weigh most in your decision-making process will be the amount of money you're willing to spend, whether you want an internal card or an external box and whether you want a single channel TBC or a dual channel

one.

Digital Processing Systems and Feral Industries also make an internal Waveform Monitor and a Vectorscope which are used to balance any color distortions which might occur between different source tapes. These devices are very nice to have, especially when you are doing high-end Broadcast Quality Video or A/B roll post production. Also, you will need to have Processing Amplifier controls (Proc Amp) in order to change the color saturation and luminance of your picture. DPS offers software-based proc-amp control, or optional external control.

As for other additional software that should be in the Toaster user's arsenal, I believe everyone should own a copy of Deluxe Paint IV--which will run on any Toaster system--or DPaint IV AGA, which takes advantage of the AGA chipset in the Amiga 4000. In any event, this seems to be the widest-used paint program for the Amiga platform on the market today. It does a lot and its interfaces are easy to understand. It's been around so long and through so many improvements and upgrades, it has become the all-time Amiga standard. It's especially great for making and playing 2-D animations and works consistently well with the Toaster's Genlock Feature to lay down graphics over video. I highly recommend DPaint IV for Toaster 1.0 or 2.0 and DPaint IV AGA for Toaster 3.1 in the Amiga 4000.

Many Amiga artists prefer the new Brilliance 2.0 paint program from Digital Creations. I have both and, therefore, the best of both worlds.

Not to be overlooked is the new Alpha Paint program from Innovision which is a 36-bit paint and image enhancement program that allows you to draw in realtime over the Toaster output--a hot new advantage for any Toaster artist. I just got a copy and I cannot wax too enthusiastically about it! In fact, I predict that Alpha Paint will shortly become the new industry standard paint program for the Toaster. The ToasterPaint 4.0 is wonderful, but if you sat down and drew up a list of all the features you wanted in a paint program for the Toaster and Flyer, you would be describing Alpha Paint. Innovision Technology, which markets Alpha Paint says that the soon-to-be-released 2.0 version will be even better. That's hard to believe because it's so good now.

By the way, Innovision Technology also puts

out a great titling program called Montage. It is truly representative of what Innovision does best--produce fine looking titles with no jaggies! The program also allows you to click and drag text to other sizes--which can be a real time-saver.

Art Department Professional (AdPro) is another must-have program. It has established itself as the image processing software of choice among Amiga users, but as with all software, there are other programs nipping at its heels. AdPro is especially valuable for broadcast quality video production. You can load a graphic image into AdPro and run an operation that will ensure that your graphic complies with NTSC standards. If it doesn't, you can correct the problem immediately.

AdPro has just about everything you need to process images in a number of different file formats, including LightWave 3D. You can also save processed images directly into the Toaster's Images drawer for use with ToasterPaint, and you can load and save framestore graphics directly. We'll discuss this product in greater detail when we get into our tutorials in later chapters.

Many people also sing the praises of ImageFX. I have seen it in action, but have not had a chance to use it and the only thing I can say is that many Toaster users swear by it, so be sure and check it out. Other good third-party paint and image programs include ToasterFX and HollywoodFX.

About ToasterPaint--you may have heard this module of the Video Toaster criticized as the weakest element of the the whole shebang. Maybe so, but I have found that I have made great, practical use of ToasterPaint almost every time I have sat down and opened the Toaster to do a commercial.

Sure it only shows a quarter of the screen at a time (Toaster 4.0 will let you see the full screen if you have an Amiga 4000) and doesn't have any animation capabilities, but that's OK. There may be better paint programs that do certain things easier, but you will end up blessing ToasterPaint for the practical features it has to help you deliver good video. It does what it is supposed to do and it does it well.

Axiom Software's Pixel 3D Professional is another good piece of graphic software that I have used often. It allows me to extrude 2D text or forms into 3D images and then import them into LightWave 3D, where they can be used as flying logos or in other forms of animation. You'll soon

discover that creating flying logos is the bread and butter of any commercial producer. These projects can pay for your equipment all by themselves! Pixel3DPro software is more important for Toaster 2.0 users than 3.1 users because the new 3.1 LightWave 3D program creates and extrudes text and even bevels it with the click of the mouse. If the main function of your Toaster is video production and you--like me--haven't bothered to learn LightWave3D because you've been too busy doing video, you'll find that Pixel 3D Professional can really come in handy. It's especially good for easily extruding forms which have unusual shapes.

Other software programs I have used are ProFills, Vols. I & II and Scenery Animator. I have used ProFills a few times to create backgrounds. It works very well and is extremely easy to use. Scenery Animator is a program I like a lot but have yet to use professionally. This program creates semi-realistic 3D landscapes through which you can move a camera by means of laying down an animation path. I bought it because I feel there will be a time when I need to create landscapes for background scenery. I haven't had the opportunity yet, but I can still see a future for it.

A new program you should check out is Composite Studio. It allows you to work with it in ToasterPaint to build beautiful screen into which windows and bars can be placed to enhance the whole image. This is not only a great program, it'll save you a lot of time in creating beautiful graphics for your productions.

One of the strengths of the Amiga computer is the depth and quality of public domain and shareware software that is available for it. Public domain software is created by programmers who have no interest in receiving profits from at least some of the programs they create.

Shareware software is created by programmers who expect to profit from their work, but choose to eschew the less pleasant aspects of the commercial software industry--marketing, packaging, distribution and so on. Instead, they freely distribute their programs and then request that the people who use the programs on a regular basis send them some money.

SID, another public domain program, is representative of one of the best Amiga utility programs out there. It's great for moving files from one hard drive to another and to use to delete unwanted framestores--especially in Toaster 2.0.

The best commercial program is Directory OPUS. It's the most-used package that I have seen and it receives the highest rating in usage in the industry. It handles a lot of operations that SID can't. If you have a few extra bucks to spare, get it. It's not that expensive!

To play back animations, you can get a copy of REND 24, another public domain program. REND 24 does not perform to broadcast quality standards--you should use a real-time digital recorder system or a single frame controller to get your animations on tape--but it does give you a good idea what your animation will look like in near real-time.

I have also made good use of ToasterVision, from Byrdseye Software, a program that includes 30 new Toaster wipes. What's more important, however, is that ToasterVision enables you to design custom wipes in DPaint and then import them into the Toaster Switcher.

It also can automate the editing process somewhat by functioning as a real-time sequencer. In this mode, it can time and control effects and framestores, laying them down on tape according to a script you create within the program. ToasterVision also features a convenient framestore catalog with a great compression utility to save space on your hard drive.

SWIPES, a companion program, is specifically oriented to AGA-style Toaster wipes for the Video Toaster 4000.

Other programs I have heard good things about or seen demonstrated are: DCTV, a fine paint program that, with the addition of a short program called "Adam" will play back animations in real-time in near-broadcast quality. Also, KaraFonts.

Everything that I've seen Kara Computergraphics produce has been of the highest quality. Also, the Breadboard. It's a device that's essential for integrating a Toaster into a larger video system.

The Breadboard comes in handy, for example, if you take your Toaster to an on-line session at a big post production house where you expect to just plug it in and use the effects and such as you normally would.

Chances are it won't sync with all the elements in the system. The main purpose of the Breadboard, from PreVue Technologies, is to add the proper delay to the Toaster inputs so they can be synced with the Toaster program output to a

downstream switcher, i.e., the house switcher which will send out the Toaster signals.

Unless everything is in sync with the house sync, you will have glaring shifts in images and colors when you edit and nothing will match.

Finally, I should mention that since I use a Sony RM-440 edit controller (made specifically for Sony 3/4" VTR's), I also frequently make use of the KDP-440 GPI (General Purpose Interface) trigger built by Smith Audio Visual (Now Y/C Plus, Inc.) in Topeka, Kansas.

Ordinarily, the Toaster needs just a standard GPI cable, but the RM-440--a popular edit controller in the 3/4-inch editing world--needs a special calibrating device to work with the Toaster. Smith Audio Visual was the first company to come up with one that really works--I think I got the first one off the assembly line--and I've been using it successfully ever since.

## **Buy according to your needs, not your desires**

One word of advice: Don't be seduced by all the ads in the Amiga and video magazines that tout this or that product as the best thing since buttered toast. It will be difficult, because you can quickly convince yourself that if you don't get that product you risk slipping into the backwater of the video revolution.

I, for one, know that I want everything I see! But I beg you to take it easy. The Toaster does so much. The best thing you can do--at least at first--is to become thoroughly familiar with the Toaster and what it is capable of right out of the box before you go max-out all your credit cards.

Video production can quickly become a money pit if you're not careful. There's always going to be something out there that you think you can't do without, and there's an area of your brain that will try to override your common sense by concocting a host of compelling reasons why you should buy a certain piece of equipment right now.

Please! Just do yourself a favor and hold off! Join Equipment Buyers Anonymous! You'll save yourself a lot of money and heartache if you can avoid this trap.

Remember, too, I'm not an authority on everything that's out there. New Toaster products are hitting the market daily and each should be evaluated closely before you buy.



## **Be sure to join a Toaster Users Group**

The best suggestion I have for anyone using a Video Toaster is to join a Toaster Users Group, or TUG. If there is no TUG in your community, start one. With a TUG, you can meet with other Toaster users; people who, perhaps, are more seasoned than yourself and have already faced and overcome obstacles that you will surely encounter. Other TUG members may also have purchased the same equipment that you are contemplating buying. Their first-hand, real-world experience is many times more valuable than any slick product ad.

You, in turn, can be of assistance to people who are less experienced than you are. That's what a users group is all about. Most of the information and advice spread around at TUG meetings is excellent and well thought out.

The dealer where you bought your Toaster should be able to provide you with information about where to find a TUG in your area.

So, now I'm going to assume you have a cuts-only Toaster editing system, i.e., one source deck (or a camera being used as a source deck) and one record/edit deck with a Toaster hooked up between them, all set up with an edit controller (or a jog/shuttle knob on your record/edit deck), TBC in your Toaster and at least seven megabytes of RAM for Toaster 2.0, 9 or 10 megs for version 3.1, and perhaps 18 megs or higher if you have a Toaster 4000.

If you have an accelerator board in your Amiga, so much the better. If you don't, you will find yourself literally twiddling your thumbs while you wait for the freeze function to process motion removal or while you save framestores or work in ToasterPaint.

And if you're into LightWave 3D, you can go out shopping while waiting for a detailed 3D model to render. If you don't already have an accelerator board, I predict you'll be getting one within a week!

# **WARNING! EVERYTHING YOU HAVE JUST READ MAY BE WRONG!**

**Due to the rapid change all computer/video technology is going through and with new products appearing almost daily in all departments, some products which I have praised in this chapter--cameras, decks, peripherals, third-party software, etc.--may have changed or been surpassed by other, newer products by the time you read this. You must be your own judge of what works best for you!**

# CHAPTER III

## BASIC TOASTER EDITING TECHNIQUES

**T**he Toaster Switcher screen--the one that comes up immediately after the Toaster finishes booting--will be the heart of all your editing functions. This is where it all comes together.

This is where you program your wipes, fades and dissolves and all Toaster effects. This is where you switch from live video to framestores to graphics and back again. This is where you integrate all the Toaster's many functions into real-time editing onto your master tape.

If you have the Toaster 4.0 upgrade or the Video Flyer, your Switcher screen will be different. Instead of displaying all the Switcher Effects in the top portion of the screen, they will now be accessed through a button near the middle of the screen and will appear in the bottom half of the screen.

The effects screens will disappear when deactivated and the regular screen will again appear. This regular screen is the Project screen. The top half is where you will place the croutons of your framestores, CG Pages, etc., and the bottom half will be somewhat like the bottom half of the Switcher screen in 3.1--with the Main, Preview and Superimpose busses present.

To see what the Toaster 4.0 and Flyer screen looks like, check out the picture of it in Chapter 13. The following information will relate to the Switcher screen in 3.1, but the principles for use will be the same in 4.0.

Whether you have Toaster 2.0 or 3.1 or the Toaster 4000 (everything we're about to discuss also applies to Toaster 1.0 users) and especially Toaster 4.0, you are bound to be awed and overwhelmed at the selection of effects you have

before you. It's probably a good thing to take some time and go through each bank of effects and take a look at every one, switching them between the color bars and the Toaster logo that comes up with the Switcher screen on your monitors.

It's quite an array, isn't it. And you know what, if you're into broadcast video production, you'll probably use only a few of them in the first six months. In fact, one of the most important things you can learn about Toaster post-production is to be judicious in the effects you use.

I can always spot when some new producer has just gotten his or her hands on a Toaster because all the commercials they produce in the first month will use every Toaster effect on the Switcher! I beg you not to follow suit. Using cool effects just because they're there is the mark of a real amateur.

### **The proper use of effects in video**

There are two schools of thought on the proper use of effects. The old school says effects should be used only to enhance the story line and to move things along.

The new school says effects should be used to keep the viewer's eye interested and therefore glued to what's happening on the screen.

For me, too many effects, or effects not used wisely, simply detract from what you're trying to say with your production. You may keep the viewers' eyes on the screen, but they probably won't remember the name of the product or where to get it. If that's the case, the person paying you good money to produce a commercial will be

watching it all go down the drain in a phantasmagoria of effects. And you won't be called on to produce the next commercial.

## BASIC EDITING OPERATIONS

Let's look at some basics here. A cut (or a take) is an instantaneous jump from one scene to the next. This is what you will use the most in editing. No bells and whistles. Just cut, cut, cut. This is the fastest way to move a story line along visually.

A dissolve is where one scene dissolves into another, overlapping each other in the middle. A dissolve is usually used to denote the passage of time or to signify the move to new subject matter. The speed with which you make the dissolve will communicate to the viewer, on an emotional level, the length of time that has lapsed between the two scenes. It can also give the viewer a moment to mentally let go of one topic before the next one is presented.

A fade in is where the picture comes up from black. It follows, then, that in a fade out, the scene goes out to black. Every commercial starts with a fade in from black and ends with a fade out to black.

Even though these are basic rules of editing, you should consider them all made to be broken. Creative producers don't follow the rules, they bend and twist and break them. You have the freedom to change these rules however you see fit. First, however, you must know the book before you can effectively throw the book away. In my opinion, the key to using any effect lies in the motivation for it. If you can justify using an effect because it is well motivated, then it will probably work.

For example, about a year ago I had a group of kids show off their wild haircuts by flexing their muscles for each other. This was great motivation for using the Toaster's "Weightlifter" and "Mr. Clean" effects as transitions.

I have not used them since and might go another year or even years before I find a motivation for them, but they were there when I needed them. This is why the Toaster is such a great value for post production work. When you need it, it's got it. And if it doesn't have it, it'll help you create it.

## Basic editing with the Toaster Switcher

So let's get right into real-world editing. You'll notice that the Toaster has a dissolve button in the lower right hand corner on every effects bank. It also has a Take button next to the Freeze Button at the bottom of the screen.

On the Flyer, you would simply move the Dissolve crouton into position on your Project screen between the two croutons representing what you want to dissolve from and what you want to dissolve to. The tutorials which follow here are for linear editing.

Your main use for the Take button will be to cut from one framestore to another or to cut from either a framestore to live video or from live video to a framestore while an edit is in progress, i.e., while the record deck is still recording after an edit has been made. Unlike the Dissolve and other effects, the Take button is unique in that you cannot depress it beforehand and expect it to perform a cut at an edit point. That's because the Take button will not remain depressed.

Cuts are the easiest effect to perform with the Toaster in the editing process because a cut will automatically occur at your edit point. Thus, whatever is in your Program bus will cut into the record deck's tape at that point. To show you what I mean, let's begin by making a few edits. But let me first lay out some ground rules:

- 1) I will assume you have a blacked and coded tape in your edit recorder. See Chapter 11 or the Glossary about blacking and coding tape if you do not know what that means. To professionals, it means you are about to do insert editing as opposed to assembly editing.

The difference is that in blacking your tape you laid down video control track code and time code if it is available on your deck. You will now be "inserting" scenes onto that tape.

Assembly editing is when you take a blank tape which has not been previously blacked or coded and simply start editing scenes together on it, butting one scene up against the other. This is usually the method used for "off-lining," i.e., stringing scenes together without regard to editing accuracy.

An "off-line" edit is something to be used as an editing guide during an "on-lining" edit session where it all goes down for real. Having an off-line edit with time code appearing in a window on the

tape (known as a "window burn") makes finding your tape segments fast and easy. And you want fast and easy because an on-line session costs about 400 per cent more than a simple off-line session. All professional editors use insert editing when putting a project together on-line.

2) When I use the phrase "edit point," I mean the place where you want both the record and the source deck to begin a scene: the record deck to begin recording and the source deck to begin playing back. You can set this up by positioning your source and edit tapes using time code, control track code, or just by eyeballing the point with a jog-and-shuttle knob. Regardless of how you do it, the point where it all happens will be your edit point.

3) I'm going to assume that every edit you make involves triggering a pre-roll by both machines. During a pre-roll, both decks will back up--usually five seconds--and lock in sync before they roll to the edit point.

4) I'm also going to assume (and this is very important) that if you are planning on using a Toaster effect from the Switcher when your machines reach the edit point, the effect will be triggered either automatically by a GPI trigger or manually by your tapping the Spacebar, clicking on the "Auto" button or clicking on the effect.

In the Flyer, just having two croutons placed together acts as a trigger.

GPI stands for General Purpose Interface. You will find the controls that turn the GPI trigger on and off on your Setup screen. Depressing the (+) button means the Toaster will trigger your effect automatically at one frame after the edit point. The (-) button means it will trigger the effect a frame before the edit point.

In order to use your Toaster's GPI trigger, you must have a cable which runs from the output of your edit controller to your second mouse port, the one you would plug a game joystick into. Now, with the cable connected and either the (+) or (-) buttons depressed, your edit controller will, when your edit point is reached, send an electronic pulse to the Toaster which will automatically trigger any selected Toaster effect.

By the way, your game joystick plugged into the second mouse port will act as a highly-accurate manual GPI triggering device--at least as

accurate as your reaction can be. Try it! GPI cables are easy to build and you will find a schematic for one in the appendix of your Toaster manual.

If you are using Toaster effects but you do not have a GPI trigger, you will have to eye-ball the edit points, i.e. estimate when the edit point takes effect, and then tap the space bar, the Auto Button, or click on the effect.

Warning: if you miss the edit point by starting the effect too soon, you may only get a partial effect or a simple cut. If you miss the edit point by being too late, you will see the effect occur over whatever is highlighted in the Main bus.

After spending a little time doing this, you will understand completely why they developed GPI devices that trigger the effect automatically when the edit point comes up. Nevertheless, don't get discouraged if your video equipment doesn't support a GPI trigger. Eye-balling an edit works once you get used to it. The secret lies in watching for the edit point to come up on your record deck and anticipating it a blink of an eye before it happens. You can also do a "by sound" edit, i.e., listen for the end of a word of dialogue or narration and make that your edit point. When you go to make the edit, tap your effect key immediately after that word is spoken.

5) I will also assume that everyone knows the frame rate for video is 30 frames per second in non-drop frame mode. Most--perhaps all--prosumer and many broadcast-quality decks operate in this mode. You only need to use drop frame mode if you are producing a longer program for broadcast. You can work in drop frame mode only if you have a field recorder that can record in this mode and decks that can edit in it.

Drop frame mode exists because analog tape actually runs at 29.97 frames per second rather than a precise 30. To achieve that rate, a deck operating in drop frame mode will literally "drop" two frames each minute--except for every tenth minute when it will not drop any frames--to give you quartz-accurate timing. If you're producing video programming for network television--and with 500-channel TV on its way you can't rule that out--you'll need to record and edit everything in drop frame mode. If you don't, your program will end up being too long for its time slot. If your equipment records and reads in drop frame mode, always do all taping in drop frame mode so you'll never make a mistake.

If you don't have equipment capable of functioning in drop frame mode but you're only producing short



programs and industrial video, you needn't worry about doing drop frames.

6) I will also use the term "live video" to denote any video being fed into the system from your source deck, be it on tape or really live from a camera.

7) Lastly, because this book is written for both Toaster 2.0, 3.1, Toaster 4000 and Toaster 4.0 users, it makes good sense to write it for one or the other and then let the reader do the conversion. So all terminology used will be for Toaster 3.1, Toaster 4000 and Toaster 4.0 users unless specified differently. Toaster 2.0 users may want to copy this simple chart for reference purposes:

Toaster 3.1 term	Toaster 2.0 term
Main Bus Superimpose Setup Screen	Program Bus Overlay Bus Preferences Screen

Although various functions are located in different places on both the Switcher and Setup/Preferences screens, it's pretty easy to logically figure everything out. The "Save Frame" functions are on the Switcher screen in 2.0 and the Setup screen in 3.1, and so on.

## Now you can start real world linear editing!

Let's begin to actually edit now, using the Toaster Switcher as the main cog in our system.

Begin by putting your blacked and encoded tape in your edit deck and running it in about 60 seconds. Then put a tape with various scenes on it in your source deck and move it to a scene with which you want to begin your edit. Set your edit point. Click on the dissolve button at the lower right hand corner of any effects bank--let's start on Bank "A"--and click on the transition speed button "F" (for Fast) at the bottom right of the Switcher screen. Click on the #4 button in your Main bus and #1 in the Preview bus. The reason we use the #4 button to come up on is because I assume you only have one video source hooked up and, therefore, nothing hooked up to the #4 input. This means you will get a nice black from

the input of #4--or from any other unused input for that matter. Also, since you blacked your tape using the #4 input, the blacks will match.

Next, tap the "make edit" button on your edit controller. When your decks reach the edit point, your GPI trigger will perform a nice 7-frame fade-in from black. (Remember, if you do not have a GPI trigger, you'll have to do this manually.) This is how you'll begin every 30 or 60-second commercial you do. That's because you want to get into the picture as fast as possible. For some videos (as opposed to commercials) you may want to use the M (for Medium: a 15-frame transition) or S (for Slow: a 30-frame transition).

Assuming you let this edit run a few seconds before you terminated it, pick a new edit-in point on your record deck about three to four seconds in from where you came up from black. Then find a new scene on your source deck and set an edit-in point there. Click on the #1 button in the Main bus and the #1 button in the Preview Bus and turn *off* your GPI trigger. Now tap the make edit button on your edit controller. When your decks reach the edit point you'll cut from your previously laid-in video on your record deck to the live video from the source deck.

Now set up new edit-in points and select one of the Toaster effects from any of the banks. Again, keep your GPI trigger *off*. Now tap your make-edit button and watch what happens.

Did the Toaster perform the effect? No. It made a simple cut instead, right? That's because nothing was triggered either manually or by a GPI pulse at the edit point. The thing to remember, if you are using a GPI trigger, is to keep it *off* when you are making a cut. If you do not own a GPI trigger, you will make a cut every time you make an edit *unless you trigger an effect manually*.

OK, now let's move along and do a dissolve to a framestore. I will assume that you want your dissolve to occur a few seconds into the edit, which means you're going to do a cut first and then do a dissolve.

To begin, set up the edit points on both your source and your record decks. If you have a GPI Trigger, make sure it is turned off. Next, go to the Quick Access panel on your Switcher screen, to the right of the T-Bar. Select a framestore (I'm assuming you have framestores on the disk you're presently in) and load it into the Preview bus by executing the Load function. The Preview bus into which the framestore has been loaded will become

highlighted. Depress the #1 button on the Main bus and the #1 button on the Preview bus, but be sure to remember which framebuffer you loaded the framestore into. Select the speed at which you want your dissolve to occur. Let's set the speed to "S" (for Slow) for this one. Finally, tap your make edit button.

At the edit point, you will automatically cut from the video you previously laid in, to the live video being fed by your source deck. After it has been on a few seconds, click on the framebuffer in the Preview bus where your framestore is being held. It will highlight and a picture of your framestore will appear in your Preview monitor. Then click on the dissolve button at the lower right corner of the effects bank.

You have just set up the Toaster to do a dissolve on the fly. Click the left mouse arrow on the Auto button (or just tap the Spacebar--which is much easier, believe me!) and the live video from your source deck will do a slow dissolve into the framestore.

You can also do this same process in reverse: dissolving from the framestore back into live video. In this case you will set up a new scene in

your source deck and depress the #1 button in the Preview bus, leaving the framestore in the Program bus in the framebuffer it ended up in. Now tap the make-edit button on your edit controller. At the edit point, the framestore will be seamlessly edited in at the end of the previous video you just laid down.

Next, while your edit is still running, click on the Auto button or tap the Spacebar and the framestore will do a slow dissolve back into the live video being fed in from your source deck. When you go back and view what you've done, you should have a seamless edit where you cut into the framestore, followed by a nice dissolve back into live video.

A quick note about the last tutorial: you can set up your dissolve ahead of time if you keep your GPI Trigger *off* because the video will cut automatically at the edit point if nothing is triggered. All you need to do is set up your edit point, pre-set your dissolve and speed, and tap the make-edit button on your edit controller. You will then cut automatically at the edit point and all you have to do then is tap the Spacebar when you want to perform the dissolve. I've shown you how to do

## TOASTER POST TIP

**With all the wonderful power of the Toaster at your disposal, there are still a few things it just won't do on a cuts-only system. You will try and try to find some way to do them, but it just won't happen.**

**One thing the Toaster won't do is let you fade in from black simultaneously with a super. You would think this would be easy, but it just isn't going to happen. By the same token, you cannot fade a scene out to black simultaneously with a super. Neither can you fade in a key with live video or fade a key out over live video. It's got to be either one or the other. So if you have to have a super at the beginning or ending of your commercial, try to think in terms of opening and closing scenes where you can attach the super in the CG (which is explained in a tutorial). But that means the scenes can't be moving. This is usually no problem when it comes to the logo scene at the end of a commercial, but it can be a problem in the beginning because we all like to open up with a little action.**

**The best the Toaster lets you do for a super is to fade in from black and then hit the Return key to load your super and then hit the Spacebar to bring it in. By the time you do this, at least 6-7 seconds will have elapsed. Not too cool. I've managed to live with this for two years and the only time I got in trouble and had to go to a studio was when I did a commercial for a client that was totally letterboxed (you will also find a tutorial on how to do this). Since the letterbox is a key, I ended up going down a generation to get the fade in from black. I did it at a studio so I could do it on SP tape which gave me about 100 more lines of resolution. That way, when I dubbed it back on to regular 3/4" to complete the rest of the editing the loss was minimal.**

**If you have to have a super come in at the beginning right away, however, try cutting it in. To do this, set your graphic super up as a key and then after you fade in from black, click your mouse on the Bus your super is in in the Superimpose Panel. Your super will key in instantly. It's not as pretty as a fade-in, but it does the job.**

it both ways here because it's nice to know you can also do it on the fly!

Incidentally, if you had wanted to make a cut rather than a dissolve on the fly in this last tutorial, you would have tapped the TAKE button instead of the dissolve effect. Remember that any effect you want to take place after a cut or an effect is performed at your edit point has to be thought out and planned in advance.

For example, let's say you want to dissolve from a framestore to live video and then do an effect to another framestore at the end of the live video segment. If you are not using time code--and I assume most of you are not--you have to think through all your moves in advance and then perform all but the first on the fly. It's not as difficult as you think and the Toaster makes it easy.

To make all the edits mentioned above, let's say you are going to do a dissolve from a framestore into live video and then do a page turn effect from live video to another framestore. You will first set your edit points and depress the Dissolve button in the lower right-hand corner of the effects bank. You then place the framestore you will be dissolving from in the Main bus (let's say it will be in DV1) and the framestore you will be doing the page turn effect *to* in the DV2 Preview bus. But since you are going to dissolve to live video first, you highlight the #1 button in the Preview bus. After you tap your make-edit button, here's what you'll do: when the edit point is reached, the Toaster will--if you have a GPI trigger engaged--perform a dissolve from the framestore in DV1 to the live video in the #1 bus. (Again, if you don't have a GPI trigger, you'll have to do this manually by tapping the Spacebar.)

You must then set up the Toaster for the next effect while the live video is running. So you quickly click on the page turn effect and then tap the #6 key--which will highlight the DV2 button on the Preview bus. Now, when you reach the

point in your live video where you want to do the effect to the new framestore, you tap the Spacebar and there it is!

So remember, if you want to string together effects between framestores and live video, they have to be thought out in advance. That's because without time code you will not be able to stop in the middle of live video to set up the next effect. You can always stop and pick up an edit on a framestore, however, because it's static and easy to match. To make these functions easier, practice them beforehand without running your decks.

Get used to performing the functions on the fly. This is especially true if you are using two Toaster effects and not using a dissolve. In this case you may have to change effects banks which will require one more operation.

Now let's say that in the next bit of video you lay down you want to superimpose a few words at the bottom of the screen, fading them in and then fading them out again. This is commonly referred to as a "lower screen super" or sometimes a "lower-third super." "Super" is short for superimpose. We'll create one now.

First, we enter the CG (Character Generator), where we will be immediately confronted with a blank screen (get used to thinking of it as a page) with a control panel at the top (it's at the bottom in Toaster 2.0). We'll create a key page in Toaster 2.0 first, so Toaster 3.1 owners can skip the next few paragraphs down to where the 3.1 tutorial begins.

## **TOASTER 2.0 TUTORIAL**

To create a key page in Toaster 2.0, tap the F1 key on the Toaster's keyboard. This will bring up a secondary control panel consisting of four page types. Tap the F3 key to make this page a key page.

You will see a cursor line at the top of the

### **TOASTER POST TIP**

**When preparing tuna fish, the object is to get rid of the fishy tuna taste. This can be accomplished in a number of different ways. One way is to sprinkle curry powder on it before you mix in the mayo. Another way is to add a few drops of Olive Oil. This works well. You can also chop up an egg and add it in or drop in some chopped olives or canned peas or all three! A little dijon mustard helps, too.**

**Experiment! Let your own tastebuds be your guide. I've tried salsa, bar-b-que sauce, Italian dressing and Sesame Oil. If none of this works for you, I suggest you switch to peanut butter. Be sure to clean your hands of any oil residue before approaching your keyboard!**

page. That's where the first letter will appear when you begin typing. Type in "Sale ends Thursday!" (but leave out the quotation marks). It will appear on the page in very, very small type. This is the default 10 point "CommonThin" typestyle.

Obviously, you don't want to use this small font, so hold down the Alt key and tap the F2 key on the Toaster's keyboard. This will call up your Toaster Font library. The library will be displayed in two columns. The column on the left lists all the fonts that are available; the column on the right lists all the fonts in the current "book."

NewTek uses the term "book" to describe the section of the CG that holds the selection of fonts that you've chosen for your current project. Its display space is limited to the area that you see on the screen, hence the longer line of available fonts on the left side. To select fonts for your book, highlight the font in the left column and tap the F1 key. The names of the fonts will then appear in your book.

To delete fonts from your book, move the cursor to the right column with the arrow key that points to the right. Tap the up and down arrow keys to move the cursor up and down the list, highlighting each font in the list as you go. Tapping the F1 key will remove a font from your book and return it to the left column where it will remain available. An important thing to remember is that you will lose all the fonts that you have put into your book each time you shut down the Toaster unless you save your book before you exit the Toaster Switcher. The "Save book" control is on the Project panel on the Toaster Preferences screen.

For now, load the font "CommonThick.54" into your book. This is the largest size of this rather straightforward font and will read well as a key. Move the cursor down the list of available fonts in the left column until the font "CommonThick.54" is highlighted, then tap the F1 key. The font should now appear in the column on the right. Tap the Esc key to exit the

font library.

Your key page will reappear upon exiting the library and the line you typed in earlier will appear, but it will still be in the small 10 point type. To change the typestyle, tap the F2 key. Each time you tap it, the font style will change to one of the fonts listed in your current book and the name of the current font will appear in the long bar above the control panel. Tap the F2 key until the words "CommonThick.54" appear in the bar.

The next step is to pick a color and a drop shadow for your font. To do so, tap the F3 button. A color control panel will appear with two slider controls. As the color in your Preview monitor indicates, this is the default color--which is white--and manipulating the top slider control from left to right will change it by degrees from white to black. The second slider control is for the drop shadow which, as you can see, is black. By moving the slider to the left you can achieve varying degrees of gray.

We want our key to be yellow, however, so it will be more eye-catching. So we now tap the F2 key until the color yellow appears on the Preview monitor. When it does, notice that there are now three sliders for color labeled "R", "G" and "B" (Red. Green and Blue) and still one for adjusting

the shadow. You will see that the top two sliders on the color panel are both set at 255: the maximum intensity. That's much too bright for TV or video use. 208 is the accepted limit. So, using the left arrow key, move the "R" slider to the left until it reads 208. Next, tap the down arrow key to move to the "G" slider: set that one to 208 as well.

To shade the drop shadow, move the panel arrow down to the last line by tapping the down arrow key. Tap on the right arrow key until you see the drop

shadow color indicator--beneath the yellow in the control panel on your Preview screen--change accordingly. You'll want a dark, solid drop shadow, so leave the slider set at 0. If you wanted a grayer drop shadow, you would have moved the slider to the right. Now tap the Return key to



**To create your lower-screen super, type in the words "Sale ends Thursday!"**



update the page and you will be returned to your working page with the selected font and drop shadow ready for use.

As you probably noticed, all colored panels had three RGB slider controls. These allow you to vary each pre-set color or develop a special color. To make developing colors other than pre-set colors easier, you can order a keyboard overlay from Video Toaster User magazine's publisher, Avid Publications, which, in addition to handy keyboard equivalents, gives you the slider positions for all kinds of cool colors. (\$24.95 for either 2.0 or 3.1 from Avid Publications, 273 N. Mathilda Ave., Sunnyvale, CA 94086)

Now all you have to do is position the line. First, ensure that the cursor is immediately beneath the line you have typed. Now hold down the Shift key and tap the down arrow key a few times. Watch the page as your line of type moves down the screen until it can't go any further. You'll note that after the line of text hits the top of the control panel, the panel will disappear, so that it doesn't obstruct your view of your title. If you still needed the panel you would just tap the Help key and the Control Panel would reappear. Once you have your title positioned in the lower part of your screen, tap the Esc key to return to the Switcher. Notice that one of your buffers will be flashing--DV1 or

DV2. This means your key is there and ready to be used. In the next exercise, you're going to edit a scene in which your key will fade in over a scene and then fade out.

First you set up your edit-in points and turn off your GPI trigger. Next, tap the make-edit button and start the decks rolling. When the decks reach the edit-in point and the cut is made, wait a moment and then tap the Spacebar on the Toaster's keyboard. The "Sale ends Thursday!" text will fade in over the scene coming from your source deck.

Now let the tape run for about five seconds, and then tap the Spacebar again and watch the text fade out. While your edit is still in progress, click the left mouse button over the #4 button on your Preview bus, then move up and click over the Dissolve Effect button in the lower right corner of the effects bank. Move the mouse pointer down to the transition speed button and click on F (for Fast). Tap the spacebar again and your scene will do a fast 7-frame fade to black.

Hey, you're editing like a professional!

## **TOASTER 3.1 & 4.0 TUTORIAL**

When you first click on the CG button on the Quick Access Panel, the CG will automatically load the book selected

in the Setup Screen. It doesn't matter which book is loaded when you do this because the first thing you will do is clear the book to make all the pages

## **TOASTER POST TIP**

**There are a whole lot of colors available to you for making supers. I'm not trying to limit you, but I think you will find that white and yellow are your best bets. Use these two colors with a nice drop shadow and border and you couldn't ask for anything better to do the job intended.**

**Many people, when they first get their Toaster, think that red will be a good color to use because it will stand out and be seen. Not so. Red is the worst color you can use. Why? Because it bleeds all over the screen. But don't take my word for it. Experiment yourself with different colors. Nothing in the red family--pinks, corals, oranges, etc.--really works.**

**The same is true when you are selecting things for people to wear who are going to be in your commercial. Avoid red like the plague! Use pastel blues, greens, yellows, etc. In the old days of TV you couldn't wear white shirts because the glare would cause a halation to occur around that person--like a black halo. We don't have that worry today, but a light blue is still better than a stark white unless you're trying to make some kind of artistic statement.**

**If you are not blessed with a good artistic sense, get someone to work with you who is. I don't mean you have to be an artist, but a sense of what's artistic really helps. That's why movies have art directors and production designers. You have to pay attention to color relationships if you want to get out of the amateur stage.**

blank. (It's a good idea to think of the screen as a "page" while you're in Toaster CG.) Clearing the book doesn't permanently destroy it, it just removes it from memory. To clear the book, click on the Page & Book Controls button (the second button from the left). (*Note: The Toaster manual doesn't discuss this button at all. They forgot to include it!*) This calls up the Pages & Book Controls menu (which is also not covered in the manual). To the far right of this menu, you will find the Erase Book button. Click on this button and all the pages in the current book will be wiped clean to give you a fresh book to work with. At the same time, the control panel will revert to the main Toaster CG menu with a key page already selected. That's the button marked "Key." If it is not selected, click on it now.

Now you need to import the proper text into the Available Fonts book so you can type in your lower-screen super. Click on the Page & Book Controls button, just to the right of the Key button. This will bring up the Pages & Book Controls menu.

Click on the F+ (Load Fonts) button and a pop-up Select Fonts menu will appear displaying a list of all the font directories. Click on the Font Bank D-G line. When all the fonts in that section appear, use the slider on the left side to select the "FrintHeavy" font. This is a good, bold font for lower-screen super work.

After you have selected it, the font will appear

in the requester at the bottom of the menu. Click on the OK button to call up a font size requester. The default size is 40 points. You'll want a 45 point font, however, so just type in 45 and tap the Return key. FrintHeavy 45 will now be loaded into your current book of fonts. Click on the "Continue" button and you'll be returned to your work page.

## TOASTER POST TIP

**If you were to ask me what I thought the most important element in doing video was, I think my answer might surprise you. Even with all the super spectacular chips, boards, software and high-resolution video formats available, the most important element--to me--in putting out good video production is lighting! I think that if you'll take a good look at a lot of video out there, you'll see exactly what I mean.**

**Good lighting is the difference between doing professional video and video that looks like it belongs on the Public Access Channel. There is no substitute for good lighting. You can have the best camera and the best deck and the best video tape and the best Toaster with all the best upgrades and if you don't have good lighting when you shoot your video you're going to end up with bad video. All the post production gimmicks in the world will not help.**

**Make sure you have adequate wattage and luminance for whatever you are shooting. Make sure you have the proper diffusers for any situation. Concentrate on back-lighting. Build yourself a simple dimmer reostat for each lighting cable. Bring along gels to liven up your plain backgrounds with a slash of colored light.**

**My advice is to learn how to light a shot under all conditions, inside and out. Go along as an unpaid intern with a lighting grip. Read a few books on lighting techniques. Practice, practice, practice. Good lighting is something you can only learn through experience.**

Toaster 3.1 makes placing a lower-screen super easy. This version of the software simply has a button on the top panel that automatically positions the cursor at the right place on the lower third of the page. The button has a picture of a page on it with an arrow pointing down to a line at the bottom of the button. If you are using Toaster 3.1, click on that button now.

Now type in your text: "Sale ends Thursday!" The line will appear on the screen in white letters. In order to color the entire line yellow, move the cursor to any light-colored letter and double-click on it: this will turn the entire line grey, indicating that it is selected. Now click on the "Palette Color" button, the third button from the left. A new control panel will

appear with three individual buttons: one is a "T" for text, one is a shadowed "S," for shadow, and one is a "B" for border.

The "T" button is highlighted by default. To change the color of the text face, click on the presets bar to call up the CG's color requester. Click and drag the mouse down to the color yellow and release it. The face of the text will now be the color indicated in the color box above the

presets bar. Hit F9 to check it out, if you want.

It's important that the color of your text meet broadcast standards. To manipulate color, there are three RGB sliders to the right of the color indicator. To ensure that the yellow you have selected is within NTSC broadcast limits, click on each of the top two sliders, "R" and "G", and slide them both to the left, to 208. Leave the "B" slider set at 80.

You can also color your borders and drop shadows, but we'll leave them black for now. The Toaster 3.1 version and higher has preset drop shadows and borders in transparency mode. You can try them if you want, but I prefer my drop shadows to be opaque black.

To change them from transparency to opaque, click on the "S" and "B" buttons one at a time and move the slider control labeled "A" (for Alpha channel) to the far right to the number 255. This will change a transparent shadow or border to an opaque one. By the way, make sure the "A" slider for your yellow text face is also moved to the far right--to 255. Otherwise your text face will be transparent and will not super well.

Now you're ready to render your work. Click on the Continue button and then the Render button at the top of the control panel (the farthest button to the right). You can also tap F9 to accomplish the same thing. You will see a yellow-faced "Sale ends Thursday" appear in the lower third of your screen on your Preview monitor. Now you're

ready to super it in.

Now we're going to edit in your super. First, find a new scene of live video on your source deck. Then set the edit points on the source deck and on the edit deck. Turn your GPI Trigger *off*, select the dissolve button on the effects bank, and tap your make-edit button. After your decks reach the edit point and the cut is made to the new scene, tap the spacebar. Your keyed text will fade in as a lower-screen super. Now tap the Spacebar again and it will fade out. Now, while the edit is still running, click on the #4 button on the Preview bus and set the speed to "F" (Fast). Tap the Spacebar and your live video will do a 7-frame fade-out to black.

Hey! You did that like a pro!

## **TOASTER 2.0, 3.1 AND 4.0 RESUME HERE**

Congratulations! You've just completed Toaster Post Editing 101.

These moves--the fade-in from black, the cut, the dissolve, the superimposition of a lower-screen super, and the fade-out to black--are the basics of all editing. If you know how to do these, you can actually begin editing! I suggest that you write out a 30-second commercial (video only) which uses just these techniques and practice editing them all together. Do this and you'll gain confidence in your ability to edit with the Toaster.

## **TOASTER POST TIP**

**Most people will tell you that the three-monitor set-up is the lap of luxury. I say four. In addition to my RGB, Preview and Program monitor, I use a fourth monitor that is fed the Toaster's Program output by a distribution amplifier--which also feeds the same Program output to my edit deck.**

**I have this fourth monitor because if you have your Program monitor being fed by your VCR output, as most people do, it does not show you what is in your Program bus when the VCR is engaged in operation. It only shows, quite obviously, what has been or is being recorded on tape. If you do a lot of editing, you know that when your record deck is engaged, you cannot see what your Toaster Program Output is feeding it. For example, let's say your next edit is to a Framestore and you're so busy that when you engage your record deck preparatory to making the edit you forget if you loaded the Framestore. Well, all you have to do is glance at your fourth monitor.**

**This not only allows me to see what is loaded into my Program monitor while I'm recording, it also allows me to do graphics without turning on my deck! This means less wear and tear on my deck by not having to turn it on in order to see my Program monitor.**

# CHAPTER IV

## ADVANCED TOASTER EDITING TECHNIQUES

**I**t's in setting up and using these advanced Toaster editing techniques that the power--not to mention the fun--of the Video Toaster is really unleashed. This is also where the money is! These are the tools that will win you awards and keep your clients coming back for more. This chapter is where you'll discover the moves that keep the viewers' eyes glued to the screen so you don't lose their attention in the 30-seconds you have to sell them a product or service. The important thing to remember is: use these moves judiciously and try to have some visual motivation for using them in your commercial.

Each of these advanced techniques will teach you a basic skill, one which you can apply in other areas of Toaster post-production and, of course, to the Flyer. It's like being a wide receiver learning pass patterns. Once you have all the standard pass patterns down, you can be creative when the defensive backs change their coverage tactics. In Toaster post production, knowing the basic patterns will boost your creativity, so that you can come up with better and more sophisticated solutions to the challenges you'll face in producing commercials and videos.

So, here are a few advanced techniques you can take to the bank!

### Flying in Keyed Graphics

Fading in a super, as we discussed in Chapter Three, is certainly effective, but wouldn't a flying or tumbling super be more so? This is a great effect, and it's easy to do with the Toaster. In fact, with Toaster 3.1, it's so easy that you already know most of the steps! Toaster 2.0 users can skip over this section and move on to the Toaster 2.0

Tutorial further along.

### **TOASTER 3.1 & 4.0 TUTORIAL**

This process represents one of the great improvements that NewTek made in the Toaster between version 2.0 and version 3.1. In Toaster 2.0, it was necessary to go through a whole other process to create a flying key. In Toaster 3.1 & 4.0 the process for creating a flying key is the same as it is for creating a super except for some important differences.

Go into the CG and create a key page, as you did in Chapter III. Be sure your Shadow and Border intensity is set to be 20 and that the Alpha channel sliders for Text, Shadow and Border are all at 255--opaque. Also, remember to highlight *all* the letters in the text line first so whatever you do with the sliders in the color panel will apply to *all* text. This time, however, place the super in the middle, rather than the lower-third of the screen. And make the text white, instead of yellow. Render the page by tapping the F9 key and exit the CG to the Switcher.

Load a framestore into the Main bus and the key page into the Preview Bus. Click on one of the fly-in effects on the "F" bank. Make sure the arrow indicator in the effect shows it moving onto the screen rather than off the screen. Move the mouse pointer over the Superimpose control panel at the bottom right of the Switcher screen and click on the buffer (DV1 or DV2) in which your key is stored. If your key is in DV1 of the Preview bus, for example, and your framestore is in DV2 of the Main bus, click on DV1 in the Superimpose panel.



## Selecting the luminance level

Now, click on the black-filled oblong button below the "3" and the "4" on the Superimpose panel. This is the black luminance keyer. (If it doesn't highlight, it means you have not clicked on a Toaster Effect.) This means that you are selecting the color black (0 Black) to drop out and not register when you superimpose the key page. All keying on the Toaster is done according to luminance, i.e., it cuts out the color on your key page according to brightness levels. You can also select the white, oblong button next to the black button and key your page according to white brightness instead of black, but we'll stick to black for this tutorial.

I probably should explain here why your borders and shadows should be set at a number higher than 0-black--20 in this case. If you had solid 0-black borders and shadows, they would drop out along with the background and your super would not be strong and vivid on the screen. By setting your borders and shadows at 20 (you may want to use 15 or 30 or experiment with some other level in order to suit your personal taste) you are assured of strong, opaque black borders and drop shadows.

After you select the black luminance button, your key will appear on your Program monitor, but it will look rather weak. To correct this, you need to set the clip level to its proper intensity. The clip level button is just to the right of the white luminance key button. Its function is to "clip" the luminance level of the black or white background color you have selected at the point

where your text will be perfectly keyed over your framestore. You will see the numbers "128" written there with up and down arrows. To clip the luminance level where you want it, click on the numbers and, holding down the left mouse button, move the mouse up or down. This will change the numbers accordingly.

So now click on the number 128 in the box and, holding the left mouse down and keeping one eye on the Program monitor, drag the clip level down to about 25. Watch as the key takes shape and the black background then fills in all around it. This means that you have gone too far. Now slowly drag the clip level higher until the black background on the Program monitor disappears and the drop shadows around the text lose their jaggies and become solid and firm. On my Toaster system that's about 29. You'll find one precise number where both the key and the framestore it's being keyed over become pristine and clear with no artifacting. Once you find it, release the mouse button.

## Flying-in your key

You are now ready to fly in your key. First check to see if a fly-in effect in the effects bank is highlighted. Exiting the CG activates the Freeze button and de-activates any effect which was highlighted, so to unlock your system you have to first activate an effect. The Dissolve effect is the most convenient. Just click on it. Next, click on the Off button in the Superimpose panel. Your key will disappear from the Program monitor. Now click on the oblong black button again. Your key page will not appear, but it's still activated,

### TOASTER POST TIP

**When you are working in the CG and have built a lot of supers and Framestores there, it's a good thing to go to the Toaster Preferences screen (The Setup screen in 3.1) and save your project before you do anything else. To save it in 2.0, click the left mouse button on the middle icon under the project identification bar--the icon that shows an arrow pointing toward the disk--to activate it and then press the ENTER key. For 3.1, you go to the Setup screen and save your work as a book. This procedure only takes a few seconds and it will save all your CG pages just the way you made them.**

**The reason you should get in the habit of doing this is that you may sometime get into ToasterPaint and find yourself without enough memory to make a full-screen brush. The thing we all learn to do when that happens is to go back out to the Switcher Screen and turn off the CG operation by depressing the Shift Key and clicking on the CG icon with the left mouse button. This frees up memory you can use in Toaster Paint, but it also wipes out any CG pages you have so pain-stakingly built but not yet saved!**

**So remember, save your CG pages as a book every time you exit the CG. You'll save on aspirin, too.**



waiting to be flown in. All you have to do now is tap the Spacebar and watch your key fly in, following the route determined by the fly-in effect you selected earlier.

This is when the fun begins! Fly your key in and out using different effects. See which ones you like and which ones you don't. Keep a log of the ones you like; you'll definitely refer to it later on. Here's a tip. If you had used a small graphic on a black background, instead of a line of text, you would also be able to fly the graphic in and out using the same process.

Think of the possibilities of doing flying logos with these effects which you have built in ToasterPaint or Lightwave 3D! Try flying in the frame in the Brushes Drawer in the Images File. Texture-map a picture in it and then fly it in the same way you would fly in a super.

When you tire of that, run live video through the Main Bus and fly keyed text and graphics over live video. Now you're really cooking! The commercial applications for this simple procedure are endless!

You're probably wondering why you can't just fly-in a key page without going through all the work of changing the shade of the drop shadows and borders. Try it. You'll find that there is really no decent way it works. The key page is meant primarily for dissolved-in supers, nothing more. You're probably also wondering why you can't build a key page to fly on the screen in the Color section-- which is next to the Key button-- of the CG by using a 0-Black background. Well, you can. Do it once to try it out and then you can make your own decision as to which section of the CG you're going to use.

## **TOASTER 2.0 TUTORIAL**

OK, Toaster 3.1 owners can skip to the bottom of this section. Toaster 2.0 owners can start here to learn how to fly in keyed text and

completely different procedure from 3.1, but it accomplishes the same effect.

The first thing you need to do is to create your super. Enter the 2.0 CG and tap the F1 key to bring up the Page control panel. This time, instead of tapping the F3 key to make a keyed page, tap the F4 key to call up a framestore page.

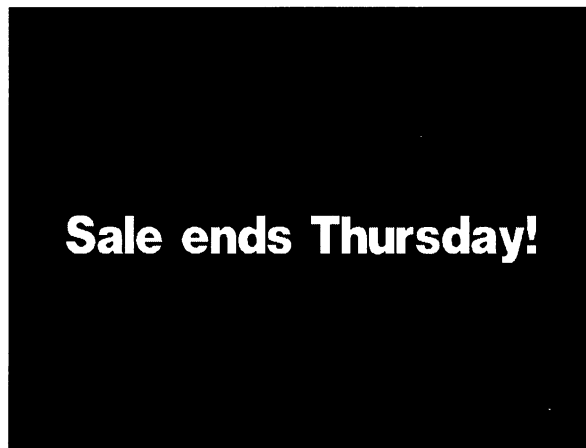
You're probably wondering why, if you're going to fly in a key, you don't build it on the key page? Good question. The answer is because the only way you can bring a key page on-screen from the Switcher in 2.0 is to fade it in. To fly it in, as we are here, you have to resort to a little more technology.

The framestore page looks just like the key page, but it isn't. The framestore page allows you to set different background colors or full-screen gradients for your graphics. It will also let you load in a framestore so you can position text over it, which is what we're going to do here. To accomplish all this you need to get to yet another control panel; this time by simultaneously pressing

the Alt key and the F3 key to bring up the background color selection panel. Tap the F2 key a few times to cycle through the three different options that are available here. You will use all of them at one time or another.

The icon with a paintbrush on it is used to bring a framestore in the CG to key graphics over it. You'll use this in a later tutorial. The icon with a paint roller at the top is used to create a gradient background. Tap the F3 key and it will change to a paint roller at the bottom.

Using these two keys and the color sliders to the right is how you create a gradient background for any text you want to go over it. There is another vertical two-color icon to the left of the white icon. This calls up two pre-prepared colored backgrounds: blue and black. Solid black will provide the background for our key, so tap the F1 to toggle on the black background (You could also quickly create a black background by moving all the sliders to the far left, to "0."). Next, tap the



**For this fly-in tutorial, set your super in the middle of the screen. Try a different color so you can get used to what works and what doesn't work.**

Return key and your updated page screen will reappear. Now, whatever text you type onto the page will be typed onto a solid black background and remain bonded to it when the page is rendered.

Type in the phrase "Sale ends Thursday!" (or anything else you want). Tap the F3 key to call up the color selector. Tap the F2 key repeatedly to cycle through the default colors for the text. Select white, but if the color slider is set higher than 208, adjust it so that it is no higher than 208.

The 208 level of intensity is within broadcast standards for color intensity. Anything higher (OK, 209 won't make that much difference), will cause the color to blur--especially if the color is red. Red, by the way, should never be used as a key color as it is the color which blurs the most regardless of its intensity.

## Adjusting drop shadows and borders

Next, tap the F3 key to bring up the icon for adjusting the color intensity of the drop shadow and set the slider to 20. This will give you a black drop shadow which is light enough not to drop out when you do your luminance keying. Now tap the F3 key again and it will bring up the icon for the color intensity of your border. Again, bring the slider up to 20 so the border will match the drop shadow. Now tap Return.

The important thing to remember about this process is that since you will be using the Toaster's black luminance keyer for the fly-in project, you don't want the drop shadows and borders to be too close to "0" Black. If they are, they will not key properly and you will get ragged edges. The levels (20) in this tutorial are safe levels, but it is a good idea for you to experiment with different levels to find out what works the best. Remember: all luminance keying is based on intensity. Each key, therefore, is going to be different based upon the different intensities of the video it's being keyed over.

Set the drop shadow and border thicknesses the same way you did before using the F5 and F6 buttons. If you were typing in two lines of type, you would repeat this process for each line.

I guarantee that it will be some time before you remember to set your drop shadow and border thicknesses immediately after leaving the color selection control panel and before tapping Return.

It's a mistake everybody makes until they get used to it. If you render a page and one line is without drop shadows and borders, it's probably because you forgot to set them before you tapped Return.

Position your super right in the middle of the page using the Alt+F4 keys. You will be called upon frequently to fly titles into the middle of the screen, not to mention the top, sides and bottom. By positioning your super in the middle, you'll get a much better idea of the Toaster's great fly-in capabilities.

Now tap F9 to render your page. After it is rendered, tap ESC to exit the CG and return to the Switcher. You will find that either DV1 or DV2 is activated as your framestore page will be in one of the two Preview framebuffer.

Since you will need a picture for the background over which we will fly in our key page, load a framestore into the Program buffer. You should now have your key page in the Preview buffer and your framestore in the Program buffer. Now you're ready to set up your key and select a Toaster effect to fly it in.

## Flying-in your key

First select the Dissolve effect to de-activate the CG. Then activate the black luminance keyer by clicking the left mouse button on the icon with the scissors in it (you'll find it to the right of the Overlay Bus) until it becomes black. Place the mouse cursor on the clip level numbers--128--and, holding down the left mouse button drag the mouse up or down. This will cause the numbers to increase or decrease. Decrease the numbers and your key page to be displayed over your framestore.

Luminance keying is performed according to the levels of intensity of black and white, hence the two options. The number 128 is preset halfway between the zero black level and the 257 zero white level. When you adjust the numbers up or down, you change the luminance level to the point where your key page is precisely superimposed over your framestore (or that of live video, if you're using it).

To set up a fly-in effect, click on the Toaster effect in the upper left hand corner of the "A" bank, that's a good, straightforward fly-in. Next, activate the same framebuffer on the Overlay bus that your text page in the Preview bus is loaded into. If your text is in DV2, for example, activate

the DV2 framebuffer in the Overlay bus by clicking on it or using the keyboard equivalent (the "Y" key). You will see your text page keyed over the framestore in your Program Bus, but it will look weak. Don't worry, now comes the fun part.

Place the mouse arrow on the number 128 in the box above the scissors. Hold down the left mouse button and move the mouse slowly forward (away from you) on the mouse pad. When the numbers fall below 45, you will begin to see your text develop its drop shadow and border.

Keep moving the mouse forward until the screen goes completely dark, then move the mouse back until your text and the framestore it's superimposed over are pristine--this typically occurs when the luminance value is in the mid-thirties--and release the mouse.

Practice this a few times until you become accustomed to how the values change when you move the mouse. Watch the edges of the text and the black horizontal lines in the framestore.

You'll notice that there is a particular spot where both become optimum. Each key is different and will require different parameters. You'll go through the same process with each flying key.

Now for the denouement! (Look it up. It's a great \$2-word for scriptwriters.) Click the left mouse button on DV1. This deactivates the key--see it disappear? But it's there. The key is now

ready, just waiting to be flown in. Tap the spacebar and voila! Your text will come flying in keyed over the framestore!

Have some fun and try using this process with each effect in each of the Toaster's effects banks. Find out which ones work well for flying keys on and off the screen and which do not. Make a mental note of them both.

And keying text isn't the only application for this kind of Toaster work. You can use the very same procedure to key over-the-shoulder windows or any other graphic. You'll find yourself using this technique constantly to produce lively and interesting commercials and videos. Try doing it now with a graphic other than text.

You'll be producing the very same effects at the same level of quality that the big TV studios do on their news programs. But you'll be doing it for a fraction of the cost.

This is a process you will do time and time again during post production. Knowing in advance which effects work in this situation and which don't will not only save you time and money, it will boost

your creativity!

## **2.0, 3.1 & 4.0 USERS SHOULD RESUME HERE**

Be aware that there are two different forms of Toaster keying. If you key an analog super (DV1 is the analog channel) over a digital or an

### **TOASTER POST TIP**

**When you type in words or sentences in the CG you will notice that sometimes there are noticeable gaps between some letters--mostly around "Y" and "W" and a few more. If you go with what you typed in, your video will be marked as amateurish. Does it happen often? Just take a look at a lot of video or TV. Even the so-called professional post production houses make this common error.**

**Evening out the gaps between letters is called "kerning," a typesetting term that has floated over to video. The Toaster makes kerning easy. All you do is move the cursor which is under the first letter of your typewritten line to the letter that needs to be kerned. Then hold down the Alt Key and hit either the left or right arrow keys to bring the letters closer together or spread it out.**

**And here's a hint: on a line like the "Sale ends Thursday" phrase which we used in the CommonThick.54 typeface in the 2.0 tutorial, you may find that in that thickness the line might be just a little too wide for your screen. No problem. Place the cursor on the "e" in "ends", for example, and tap the left arrow key a few times. The whole word will close up to the word "Sale." Now do the same thing on the "T" in "Thursday." Now your phrase is well within the "safe" area of the TV screen.**

**So remember, if you type a phrase that ends up being just a little too long to be safe and you need that size font, you can always tighten up the spaces between words a little bit without running the words completely together.**

analog source, your key will have clean, sharp edges, just as it should have.

But if you key a digital super (DV2 is the digital channel) over a digital or analog source, a slight edge--either black or white, depending on which color you are keying--will appear on the right hand side of the keyed image or text.

## **POSITIONING AND ATTACHING TEXT TO FRAMESTORES**

You will find a lot of uses for this technique. It comes in especially handy for creating what I call a logo framestore. The logo framestore is the final scene that ends every commercial and includes the client's logo, address and phone number and sometimes a graphic or a slogan.

Converting a framestore image into a background requires a very different technique in Toaster 3.1 than it does in Toaster 2.0, but one function remains the same--switching from a three-monitor to a two-monitor setup in order to position text. You'll find that this makes the whole operation a lot simpler because making this switch causes the Toaster CG screen to be superimposed over the Preview output screen so that when you type in text on your CG page it will appear "ghosted" over the framestore image on your Preview monitor when you render the page. This ghosting effect makes it much easier to see where you should place your text to make it most effective.

In both Toaster 2.0, 3.1 and 4.0 the procedure to make this happen is very simple. Just press Alt-Help while you are in Toaster CG. The two screens will be blended together right away. To go back to a three-monitor system, just press Alt-Help again. Of course, if you are working with a two-monitor system in the first place, all of this will happen automatically.

## **TOASTER 2.0 TUTORIAL**

Toaster 2.0 users will begin by rendering the framestore they want to use as a background for text into the screenbuffer in ToasterPaint and then exiting to the Switcher. That's because the framestore you're going to attach text to must be loaded in the ToasterPaint screenbuffer when you exit the program in order for it to be grabbed for use as a background in Toaster CG.

Next, enter the Toaster CG to begin a sequences of key taps and mouse clicks that will become stamped in your memory in no time. The sequence goes like this: tap the F1 key, the F4 key, the Alt-F3 keys and then the F2 key. You'll end up with a single little paintbrush icon at the bottom of your CG Screen. The icon indicates that when you tap the Return key, your logo framestore will be chosen as the background for your CG page and you will be returned to the screen where you can now enter text.

Load the familiar "CommonThick.54" typeface by holding down the Alt key and tapping the F2 key to display the Toaster's font library. Use the mouse to run down the list of fonts on the left and highlight the "CommonThick.54" type style and tap the F1 key to load it into your book. Tap the Esc key to return to the CG screen and enter your text. Type in your company name and then, holding down the Shift key and tapping the down arrow, move the cursor down to the "lower third" position and type in your company address and color both lines yellow with borders and shadows set at 20.

Tap the F9 key and your framestore page will render on your monitor with the text in the position where you moved it. Make a mental note that the text and the framestore are still two separate elements. This gives you the opportunity to make any final adjustments before you're totally committed to the page. Take a good look at what you've created and make sure your text is positioned where it is most esthetically pleasing (love that phrase!).

For the sake of the tutorial, let's say you're not pleased, so now we're going to move the top text line down just a bit. Place your cursor under the first letter of the line and hold down the Shift key and tap the down arrow key to move the text down on the page. As you step the line of text down, you'll see a ghosted image remain where the line was first rendered and you can see your text move. Repeat this process with the bottom line, bringing it up a little bit. (Let's face it, we always want to bring up the bottom line!) See how easy it is to position your lines of text exactly where you want them?

The "ghosted monitor" system is especially useful when you have to fit text into a window or any other pre-designated space. If you try to position text using the three-monitor mode, you have to guess where to position the line and then

render it each time to see if you did it right. The two-monitor mode will save you hours of time in the long run.

A special tip for 2.0 users: never position a line of text as far down to the bottom of the page as possible and then try to add shadows and borders. The Toaster CG recognizes that you are out of room and thus will not perform those functions. Always build your line a few lines up from the bottom of the page and then add your shadows and borders before taking the line down to the bottom.

When you are satisfied with the position of your lines, press the Alt-Help keys to return to the three-monitor system and then press the Esc key to exit the CG. Next, activate the CG by clicking on its icon (or by tapping the ") key on the numeric keypad). Locate the CG page you were working on by advancing the pages using the "+" key on the numeric keypad. Tap the Enter key to render the page into one of the Toaster's framebuffers.

You can now use your newly-created CG logo framestore right from the Switcher or save the rendered page as a framestore using the Save Frame procedure. Remember, immediately saving something you have just spent a lot of time building is the best protection you can give your work. It's all too easy, especially for a beginner, to inadvertently wipe out all your hard work by using an unsaved framestore.

## **TOASTER 3.1 & 4.0 TUTORIAL**

Attaching text to a framestore is easy in Toaster 3.1 & 4.0. Start by entering the CG. When the main screen comes up, clear the book by tapping the icon which shows the eraser and the three outlined pages. Then press the Alt-Help keys to switch to a two-monitor set-up which will give you a ghosted image on your Preview monitor. Now click on the Key button at the far left of the ToasterCG panel. This will bring up the icons for four page types. Click on the Backdrop page icon (the one with the shaded horizontal stripes on it) and then click on the Palette button. This will bring up the Color Control panel. Click on the Paintbrush icon. This will bring up another row of icons beneath it. Click on the one that has "PAINT" written on it.

To the right of this icon is the "Load Frame" icon. Click on this button to bring up a menu of your available framestores--the same menu you

will find on the main Switcher screen. Drag the mouse to the number and name of the framestore you want to use as a background, highlight it, click on the "OK" button and this framestore will be loaded in as the background for this CG page. Click on the "Continue" bar and you'll be returned to the Control Panel where you'll be ready to select fonts and begin typing in and positioning your text.

Here's an important tip. If you are positioning text on a Framestore which you have been working on in ToasterPaint, it will load in on your CG page automatically! After you click on the Color Control Panel button and the requester comes up, you will see the "Paint" button highlighted. This means that it will load without your going through the previous process. Just tap the F9 key and it will load into your Preview monitor. Remember this tip. It will save you a lot of time in the future.

You will select text the same way as was outlined in Chapter 3. Use the "FrintHeavy" typeface or any similar bold typeface in a 50 or 60-point size. At the top of the page, type "The (your last name) Co." (Again, leave out the quotation marks.) Next, move the cursor near the bottom of the page and type in your phone number with the area code in parenthesis.

Make sure you hold down the Shift key and double-click on a letter which is unhighlighted (i.e., it will be white instead of gray) to highlight all the text on the screen. Then, whatever alterations you make in the Color Control panel will apply to *all* the text. If you want to highlight and alter one line, just double-click on an unhighlighted letter in that line.

Alas, the Toaster CG does not allow you to highlight, say, two lines out of three simultaneously. You can only highlight one line at a time. The only way you can highlight two lines out of three is to click on an unhighlighted letter and then, holding the left mouse button down, run the cursor over all the other letters individually.

You can cast the typeface in white and add a drop shadow and border by clicking the mouse button on the "S" and the "B" icons in the color panel and adjusting the RGB sliders to 20. Be sure to set the Alpha Channel slider on these two panels to 255: opaque. Check to see that your "A" channel is also set to 255. You need these levels to produce a nice, clean, sharp key. Now click on the "Continue" button and you will be returned to



your CG page. Center both lines of text and then tap the F9 key to render your page.

You will see the text "ghosted" over the framestore image in your Preview monitor. Let's say that you don't care for where the text is positioned and you want to change it. Again, the Toaster makes it easy. Look at your CG screen and you will see that the cursor is under the first letter of the top line of text and that that letter is highlighted. What you want to do now is click the arrow on that highlighted letter and move the mouse an inch to the right. You will see an outline appear around your highlighted text. Now, as long as you hold down the left mouse button, you can move that entire line anywhere you like around the page. Track where it is on your Preview monitor to position it where you want it.

When you have the outline finally positioned, release the mouse button and it will be stamped down there. If you still don't like it, repeat the process until you get it right. When you're finished re-positioning the top line, do the bottom line too. When both lines of text are where you want them, tap the F9 key and the text will be wedded to your framestore. Now you can exit to the Switcher and you will find your page will be in the Preview bus, waiting to be saved, if you wish to do so.

## **2.0, 3.1 & 4.0 USERS SHOULD CONTINUE HERE**

As I said in the beginning, you will use this advanced technique time and time again as you create commercials and videos. The procedure will always be the same, but as you learn how to unleash the power of the Toaster, you will be able to create more and more elaborate framestores.

Since the Toaster cannot fade out a super and a framestore at the same time, this is the method you will use to build that logo framestore that will give the name, address, phone number, etc., of the sponsor of a commercial. Since it's a framestore, you can do an effect as a transition to get to it and then you can do a Fast dissolve to black for your complete fade-out for the ending.

## **USING TOASTER WIPES AS SCENE TRANSITIONS**

If you work with cuts-only editing systems--as I have throughout my career producing commercials--you will encounter a situation where you will want to effect a transition between two moving scenes using some other means than a straight cut.

The fact that you are working in a cuts-only system means that you can't use the common dissolve (unless you are planning to do a fake A/B roll dissolve--which I'll show you how to do in Chapter Five).

With the Video Toaster, however, there are several different wipes you can use to change scenes in a dramatic way that will pique the viewer's interest.

This advanced technique lends itself more to videos than it does to commercial TV, but there are instances where you might find it handy in a commercial anyway.

Let's say you want to transition from one live video clip to another without using a cut. A dissolve is out of the question without an A/B roll editing system, but you can still denote the passage of time or a change of thought or a change of place of action.

How? Use a Toaster wipe effect that you edit in two stages. One particularly good wipe for this purpose is the "Tiles" effect. You'll find it on the "F" effects bank in both Toaster 2.0 and Toaster 3.1.

If you have a Flyer you'll be able to do a dissolve and having a cuts-only or an A/B roll system doesn't really matter, so you can skip this tutorial if you want. Still, there's good information here.

You have to think and plan ahead to use this effectively. By that I mean that you have to know in your mind when you made a previous edit that you are going to end that edit with the Tiles effect. So let's say you've done this and you are now laying down that edit. Click on the Tiles effect, and set the transition speed to the desired setting. Fast is best, but use your own judgment. Set the edit points on your source and edit decks and make sure your GPI trigger is *off* and tap the make-edit button on your edit controller.

A cut will occur when your decks reach the edit point. When you reach the point where you want

the Tiles transition to happen, tap the Spacebar on the Toaster's keyboard. The Toaster will perform the Tiles effect so that the scene will appear to break up into an increasing number of tiles until it reaches infinity; then it will reverse the effect and return to the same scene being laid down. End your edit after it has completed this effect.

## **Doing the complete transition**

Now you are ready to perform Toaster magic! Use your jog and shuttle knob to back up the scene on your edit deck to exactly where the Tiles transition was half-way complete--at the point where the tiles broke up into infinity. This will be the edit-in point for your record deck.

Select the edit-in point of the new scene you want to lay down at the end of the one you just recorded and enter it into your edit controller. Click the left mouse button on the T-bar control on the Toaster's screen and drag it down to where the Tiles effect is exactly half-way completed--the same point where the tiles break up into infinity. You can follow it by watching the ghosted blue lines on your RGB monitor converge as you drag the T-bar down. When you are satisfied it is at the half-way point, release the mouse button.

Turn on your GPI trigger and tap the make-edit button on your edit controller. At the edit point, exactly where the previous scene dissolved into infinity, your edit deck will begin recording the new scene dissolving-in the Tiles effect from infinity. When you view it, you will see one scene break-up quickly into infinity and your next scene smoothly coming in where the previous one left off. Best of all, you've made this transition without the screen going to black--an esthetic no-no.

If you don't have a GPI trigger, you'll have to eyeball the edit. To do that, watch the monitor from the edit deck. When you see the effect start its tiling process, wait until just before it gets to infinity and then tap the Spacebar. If you learn to anticipate just a little, you'll get a seamless edit. Happy experimenting!

## **USING POSITIONABLE EFFECTS TO CREATE AN OVER-THE-SHOULDER WINDOW**

Most all of today's news producers place a "window" with a graphic in it over the

newscaster's shoulder to convey information about the story being presented as a way to maintain the viewers' interest. The graphic is typically a representation of the topic the newscaster is speaking of. The producer hopes the graphic will help keep viewers from channel surfing.

The Toaster gives you the ability to produce very professional over-the-shoulder effects. If you simply want to fade in a window or a graphic, and then fade it out again, you can accomplish that using the same steps you learned to fly in keyed graphics: just size and position the window or graphic wherever you want to key it in. Warning: be careful that the image you key does not contain very dark areas, otherwise they will bleed through.

But if you want to be more sophisticated, you can use the Toaster's positionable effects capability to sneak a frame on--seemingly from infinity--and then take it off the same way. And let's face it, sophisticated effects are where the big bucks are!

The first step in creating this effect is to determine the size of the window you're going to bring on. To be effective, it must be exactly proportional to the height and width of the positionable box in the effect. Here's how to do that:

Load one framestore into DV1 of your Main bus and another framestore in DV2 of your Preview Bus. Now select the Positive Wipe In effect--one of the four Positionable Effects. Next, put the mouse arrow at the top of the T-Bar Control, hold the left mouse button down and pull the T-Bar down to drag out a window of the desired size. The window will get bigger the farther down you drag down the T-Bar.

You may want to practice this a few times in order to get exactly the right size. (To re-position the T-Bar after you have dragged it half-way down, simply hit the Spacebar.) When you have the suitable size, release the mouse button. Now move the mouse around. You'll observe that the window will remain attached to the cursor and that you can move it around the screen and position it without it getting any bigger or any smaller.

Now place the window where you want it--such as over the shoulder of the on-camera talent in your video. A lot of people are really finicky as to whether or not the bottom of the window should overlap the talent's shoulder. Esthetically, this is supposed to bring the picture too far into the

foreground, upstaging the talent. I suspect that the person who formulated this rationale was a news anchor! Personally, I could not care less if it touches or overlaps. This is TV, not brain surgery!

When you have the window positioned where you want it, outline the box on your program monitor with a dry erase marking pen. Now you are ready to put your graphic or framestore into position using ToasterPaint.

For this tutorial, you're going to use a window with a frame around it. There's an easier way to do this using Toaster 3.1 & 4.0, but Toaster users should follow this tutorial along anyway because many of the procedures will be identical. At the end of the tutorial, I'll show you 3.1 & 4.0 users how you can accomplish the same thing while saving a lot of time and effort.

Toaster 2.0 users will have to create a gold frame to use for the window. Go into Toaster Paint and, holding the left mouse button down, move the arrow onto the long, white color bar near the middle of the screen over the brush selection panel. This will reveal a menu of colors below it. Holding the mouse down, move the arrow down and to the right. Three numbers to the left of the arrow will keep changing as they indicate the RGB values for the different colors the arrow moves over. Move it through the yellow section until the numbers 255 176 32 appear. Then release the mouse.

Now pull down the Picture menu by holding down the right mouse button, selecting "Clear"

and releasing the mouse. Your screen will change color from black to a bright gold--the color you selected. Change your paint color to black, select a small brush size, and click on both the Rectangle and the Fill buttons. Using the mouse, draw out a black rectangle about 3/8-inch *inside* the outline of the window drawn on your screen. The window will fill with black paint.



**Hollywood actor Peter Husmann takes a coffee break in the middle of an installation video for Reveal Computer Products, Inc. while a window comes on the screen telling what's up in the next segment. This kind of effect is made possible by using the Positionable Wipe In effect rather than the standard method of keying the effect onto the screen.**

What we're going to do now is fill that black rectangle with a framestore graphic that will eventually appear as a window over the shoulder of the talent. To do this, first tap the "J" key to create a Swap screen. What this does is, in effect, clear the screen so you can load another framestore, but it keeps your previous screen handy in an invisible layer behind it.

Load the framestore with the picture you're going to use in the window. Remember, your original

framestore is hidden behind it. You can swap these screens and alternately view them by tapping the "J" key, hence the term "Swap screen." Click on the small, square brush, the rectangle and the scissors buttons and then tap the "W" key. This will pick up your entire screen as a brush.

Now access the Brush menu by holding down the right mouse button and select Swap and then, on the menu that will appear, select Copy This Brush. Release the right mouse button and depress it again and find the Mode menu and open it up. Select the TxMap option. TxMap stands for Texture Map. Texture Mapping means you can pick up an image as a brush and then draw it and

redraw it in any size you want. Now click on the rectangle and the Fill button.

You are now ready to put your Framestore into the window. Tap the "J" key again to bring back the gold screen with the black window. Place the cursor in the upper left corner of the black window, then click and drag out the rectangle to the bottom lower right corner. The black window will be replaced by your framestore. You have now completed the creation of your "window" which you will use in your positionable effect. Be sure to save it.

Exit to the Switcher and load the framestore you just created into the Preview bus. Set the live video of the on-screen talent to run in your Main buffer. For this tutorial, you don't necessarily have to have an announcer talking on screen. You can use any live video you have on hand.

Set up your positionable effect by depressing the Positive Wipe In effect. Set your mouse cursor on the T-Bar control and slowly drag it down. You will see a cut-out rectangle appear in the middle of the screen. When it is the approximate size of the outline you drew on your Program Monitor, release the mouse button and align this dragged-out window in position over your marked outline. If the dragged-out window is too large or too small, repeat the process until you get it right. Remember, releasing the mouse button allows you to position the cut-out rectangle anywhere on the screen.

When the window is the correct size and in position, tap the Spacebar. The rectangle will expand to fill the screen, showing all of your gold background with the framestore window on it. You are completing the effect here, meaning that the positionable window you dragged out was a partial use of the effect. Your T-Bar control will advance all the way down and then return to its original position. Tap the Spacebar again and it will expand out to become the shape of your window, revealing your framestore with a nice, neat gold border around it, keyed over the live video being fed from your source deck. Look at it a minute, admire your work, and imagine the many different ways you can use this effect.

Remember, you don't have to set up a key for this effect. It keys automatically. When you're ready to end it, hold down the Shift key and tap the Spacebar again. Your window will collapse back to where it came from and out. Note, too, that if you had not held down the Shift key when you

tapped the Spacebar, your positionable effect would have completed itself, expanding full screen. You can use this effect to your advantage if, for example, your framestore was such that you could go from a portion of it to full screen. You would not be able to use a border, however, because the border would show when the effect expanded out. Also, notice that you did not actually have to draw out a gold frame around your window. The edge around your positionable effect determined the border/frame of your window. Doing it this way saved you a lot of extra steps because you can spend an eternity trying to draw out a border around your framestore that will fit precisely.

Notice, too, that I didn't have you use the positionable effect that brought the window in frame and all. If you had, there would have been too much pixelization (the cube-like break-up in the picture). Try it for yourself and you'll see what I mean.

## **TOASTER 3.1 & 4.0 TUTORIAL**

Toaster 3.1 users, as usual, have a greatly simplified process to follow in order to achieve this same effect. A very attractive pre-made gold frame is included with both ToasterPaint and LightWave 3D. You can render the frame in ToasterPaint by entering and going to RGB (Images) and then clicking on the Brushes section. Look for "Frame" and double click on the word and it will load into the upper left hand portion of your screen. From there, you have to cut it out as a brush and copy it. Then you can texture-map it into any shape you want. This is a thicker-than-average frame, but you can always black-out the inside layer of it and it will still look nice. Either way, it's a very good-looking piece of work.

The LightWave 3D frame is even better. To make it available for use, click the mouse cursor on the 3D button on the Quick Access Panel to enter LightWave. Once there, click on the Objects button: the second from the left at the top. This brings up the Objects panel. Now click on the Load Objects button. When the requester panel appears, move the slider down to the Tutorial Directory and click on it to load it. It's contents will appear in the window. Double-click on the Window.obj object to load it. Click on the Continue button at the bottom of the Objects Screen to change it back to the Layout Screen. Your window frame should now be displayed in

the Layout Screen.

From the View panel at the left of the screen, select the Camera view and then click on the Object button in the Edit panel just beneath the View panel. Your window frame will be highlighted.

Next, click on the Move button on the Mouse panel. Place your mouse cursor over your window frame and depress the left mouse button. Now you can move it around the screen and re-size it. When you get the size you want, release the left mouse button and click on the Create Key button at the bottom of the Layout screen. This will bring up another requester. Type in 0 and tap the Return key. This, in effect, freezes the window in position to be rendered.

Click on the Render button at the bottom left of the Layout Screen to get another requester. Make sure the Manual frame advance button is highlighted. Tap the Return key and your window frame will be rendered. When it is finished rendering, tap the Esc key and click on the Switcher button (on the Layout screen at the top left, under the Objects button). You will now be returned to the Switcher Screen and your rendered window frame will be in a framebuffer.

Save the image as a framestore, enter ToasterPaint, load the file, and then save it as an RGB file for future use. This frame can also be easily re-sized from within ToasterPaint through the texture-mapping process. You can also texture map any framestore inside the frame.

## **2.0, 3.1 & 4.0 USERS SHOULD CONTINUE HERE**

This over-the-shoulder window is a move you'll find yourself using again and again in post production. You'll also discover that with a little practice, it will become second nature. Remember, using sophisticated effects like these is where all the green cabbage is!

### **CREATING A WINDOW WITH A MOVING IMAGE**

In the last tutorial the live video moved and the window was static. In this tutorial, the live action video will freeze and a window will appear

with live action video inside it. It's important to remember that with a cuts-only system, only one video source can be live at any one time.

You can have live video in a window surrounded by static video, or you can have a static framestore in a window surrounded by live video. You can't have live video in a window surrounded by live video unless you have an A/B roll editing system.

Live video in a window has many uses. I often use it when I produce how-to videos that teach people how to install upgrades to their computers. I'll shoot a computer upgrade installation demonstrating how expansion cards, for example, fit in the computer's slots. Then I'll freeze the shot and open a window within the shot that shows how some hidden part of the card has to be fitted in on the other side.

I've found that this helps the viewer keep what's happening in context as to where it's happening. You'll soon discover applications of your own.

The most important thing to remember is that this whole process starts with pre-production planning. That is when you determine the size of the window you're going to use and where you will position it. After you have made these decisions, take your handy dry-erase marker and draw an outline of your window on your field monitor. That way you can make sure that your action shot is within those parameters when you shoot it.

You must also make sure that the live video you plan to use for your freeze frame is steady, i.e., you're not in the middle of a pan or a zoom. It doesn't look good to freeze something midway through a pan or a zoom--although there are isolated situations in which it works. Hey, this is TV!

If you're ready, I can show you how to create the window and produce the freeze frame which will have the live video inside it. Video Toaster 2.0 and 3.1 & 4.0 users can follow the same tutorial because it involves using only ToasterPaint.

Begin by rolling the live video in your source deck to the point where you want the window to appear. When it gets there, tap the F key on the Toaster's keyboard to freeze a frame of it. Activate the motion removal program to ensure that you have a single, rock solid frame of video. The motion removal/image stabilization buttons



can be found on the Preferences screen in 2.0; on the Setup screen in 3.1.

The reason you need to remove motion is obvious. When you hit the Freeze button you saw that your freeze was not a full-frame freeze. It was jittery. That's because the Toaster captures four fields when the Freeze button is activated. The jitter you see is the frame buffer cycling through the motion in those four fields. The Toaster's motion removal tool allows you to reduce this down to either two fields or one field. The difference between the two is that the two-field option retains better image quality than the one-field option. In the real world, however, you

will hardly ever use the two field option because you will want the rock-solid freeze frame that only the one field option can provide. Fortunately, the quality of the one field option--at least every time that I have used it--is quite good.

Here's an alternative to the motion removal process: Remember in which framebuffer (either DV1 or DV2) your freeze is stored and then open up Toaster Paint. Click the right mouse button on top of the Control Panel, pull down the Prefs (for Preference, of course) menu, and select the framebuffer holding your freeze frame and select Grab-one in the sub-menu. Toaster Paint will grab that freeze and automatically reduce it to a single frame, eliminating any residual motion it may

have had. This eliminates a whole step in the motion removal process and it works just as well.

We now want to create a black window for the luminance keying through which your live action will appear. Click on the rectangle tool and the fill tool and, using a square brush, drag out a

rectangle with a 000 black value on the freeze frame where you had marked it previously. You'll also need a border around the window--to set it apart from the freeze frame when the live video is fed through--so take the largest square brush, click the fill tool off, and draw a gold border about 3/8" thick around the black window.



**This is an example of opening up a moving window in order to show some detail about something that has been going on on screen. It's best to darken the area around the window with the moving image in it because that way you will signal to the viewer that it's important and focus attention on it. This can easily be handled in ToasterPaint as the tutorial explains.**

## **Making a more effective freeze frame**

You can make this technique even more effective by darkening the freeze frame left around the window. Then, when the window is keyed in, the sudden darkening of the surrounding area will emphasize what's happening inside the window and signal to the viewer that you're suspending the continuity of the video to make an important point.

To darken the freeze-frame around the window, get into Toaster Paint's Transparency & Warping Control Panel by clicking on the icon with the sphere and square on it. Once inside, set the transparency sliders (they're on either side of

the round sphere inside the window) down half way to 50 per cent. Exit to the paint panel and use the filled rectangle tool with the drawing color set to black to fill in the area surrounding your window by dragging out rectangles to fill the area outside the border. You can also drag out a single full-screen rectangle, but then you would have to re-do the 0 black inside the window and the gold border. You could also darken the screen prior to cutting out your black area and drawing your gold border (if you have a non-linear mind!).

Be sure and fit adjacent rectangles precisely up against one another, but don't let them overlap. Overlapped rectangles will cause dark lines between the panels. You can observe the area around your window darken by about half as you perform this step. Feel free to experiment with the percentage of darkness; you may prefer the freeze frame to be lighter or darker than we set it to be in this example.

Save your ToasterPaint work as a framestore and you're set to edit. Return to the Switcher Screen, load your window frame into the Preview bus, click on the DV1 or DV2 button in the Superimpose bus, and click on the

black luminance key. Run some live video in the Main bus and adjust your clip levels until your live video appears cleanly inside your window. If you see a heavy black border inside the left side of your frame, that's the result of keying analog video in the digital channel. You can correct this by swapping framebuffers. You're now ready to make your edit.

Set the edit point on your record deck where you want the freeze frame to appear and set the edit point on your source deck to the live video you want to appear in the window. Leave your black luminance levels set and your key on and tap the make-edit button on your edit controller.

At the edit point, your previously-laid-in video will suddenly freeze and darken and the window with live video will pop in.

If you want to be real fancy, try this: Let's say your freeze-frame with the black window is in DV1. Put another copy of the same freeze-frame in DV2, but instead of a plain black window, type some text in there--white on black. After your live video has run inside the window for a few seconds, click on DV2 in the Superimpose bus. Your text will appear over the live video!

## TOASTER POST TIP

**If you have gone through all the Toaster incarnations from 1.0 to 4.0 you have no doubt noticed that 4.0 does not include any of the fonts from 1.0 or 2.0. This is no real big deal because you have more than you need in 4.0 to begin with. Still, there are some good things in these older programs.**

**What I did was use my Directory Utility (SID or OPUS) to transfer the ToasterFonts from Toaster 1.0 disks #3 and #4 to a new directory I created in the "ToasterFonts" section of 4.0. I simply named the new directory "ToasterFonts1.0" and began copying the 1.0 ToasterFonts into it. For 2.0 fonts, you have to load your Toaster 2.0 completely on another hard drive and then use your OPUS or SID to transfer the fonts you want.**

**Of course, you do not want to copy the "Chroma Cards" (The Visa, Mastercard, American Express and Discover Card) from 1.0 into 3.1 or 4.0 because we are not supposed to use these anymore. So I'll just assume you will not go to Disk #3 in 1.0 and transfer them over.**

# CHAPTER V

## DOING FAKE A/B ROLL DISSOLVES

**T**he "A" and the "B" in an A/B roll editing system simply means that there are two source decks used for editing, instead of just one. The term comes from the movies where the "A" camera would shoot the master shot of a scene and the "B" camera would get the close-up head shots of the same scene for use as cutaways. In other words, the "B" roll contained footage that was to be cut into the "A" roll during editing.

Movie producers didn't shoot everything on the same roll of film because that made it too difficult to edit. With an A/B setup, they could just find the segments of film from the "B" roll that contained the shots they wanted and splice them into the "A" roll--the "master" roll.

Video editors face a more difficult task than film editors; some of us learn that fact the hard way. For example, if you plan to do a dissolve between two scenes, and you shoot both scenes on the same roll of tape, you've got a problem. In order to make the edit happen, you'll have to dub off the scene you want to dissolve to onto a "B" roll. Dubbing off onto a "B" roll means that you'll lose a generation and besides being more work, the generational loss can sometimes make a critical difference.

Flyer users don't have to worry about this at all. See Chapter 13 for the Flyer workaround.

If you can't afford a full A/B roll editing system, you can still obtain some of the same benefits of having one by using the Toaster to fake it. That means you can perform fake A/B roll editing--with simulated dissolves between scenes--

with a cuts-only editing system containing a single source deck.

Learn to plan ahead for your Fake A/B roll dissolve. Successfully faking an A/B roll dissolve begins with adequate pre-production planning. You need to determine well in advance where you'll use this effect, and then shoot the scene accordingly. For example, let's say you want to set up a fake A/B dissolve from the close-up of a narrator finishing an on-camera statement to a scene of a space shuttle launch. When you shoot the narrator reading his statement, direct him or her to remain close-mouthed and motionless as soon as he or she finishes the statement. It's equally important to direct your camera person to finish any moves--such as a zoom-in or zoom-out--before the narrator finishes his or her statement.

The narrator and the camera operator need to remain still because when you go into your editing session, you're going to grab a freeze frame of the narrator that you'll use to dissolve into the shuttle launch scene. Since the freeze frame will capture just a fraction of a second in the scene (1/30th), the scene has to be motionless. This may sound difficult, but it really isn't.

You have to watch for the little details: dangling earrings, trees swaying in the background or moving cars behind the narrator. If there is any motion in the scene from which you want to fake a dissolve, it will show up in the final product and destroy the illusion of a real A/B roll dissolve that you are working so hard to create. This will become more clear as we go through the process of creating our fake A/B roll dissolve.

To begin, roll the tape of the narration scene in your source deck and grab a freeze frame at the end of the segment. Edit in this narration scene, making sure that you don't end the edit until you are past the point where you grabbed your freeze frame; the point where you're going to do your fake dissolve.

Load the freeze frame into your Main bus and set the edit point on your record deck at the exact place you took your freeze. Set the edit point on your source deck to where you want the shuttle launch scene to begin.

Set the Switcher for a fast dissolve from the Main bus (where you've loaded your freeze frame) to the Preview bus (where your shuttle launch source video is). Set your GPI trigger to activate a frame after your edit point (+) and then hit the make-edit button on your edit controller.

Your record deck will roll with your previously laid-down edit of the narration. At the edit point, it will cut to your freeze frame which, if you did everything right, will be a match-edit, i.e. you won't be able to tell the difference between the last frame of your previous edit and the freeze frame. A frame (or two, if your edit system is not frame-accurate) after your freeze is laid down, the GPI will kick in and do a fast dissolve from the freeze frame to the live video coming in from your source deck. Behold! You have just accomplished a seamless, fake A/B roll dissolve on a cuts-only system.

If you don't have a GPI trigger, you'll have to eyeball the edit. This can be tough if your freeze

parameters--the the amount of time your narrator holds his face still--are small. The best way to do this is not by watching the control track timing or any kind of analog or digital timing, but rather by listening to the narrator and developing an aural feeling for when the edit should happen. Try it, it really works!

Now you should understand why a motionless freeze frame is so important. If the scene from which you're going to grab your freeze frame has any kind of motion in it, your effort to fake an A/B roll dissolve will be instantly revealed when the motion comes to a sudden stop when your freeze frame comes on.

If you really need to fake an A/B roll dissolve, and there is some motion in the scene from which you need to grab your freeze, go ahead and try it. You and your client may still be satisfied with the result. You'll never know until you try.

## Some hints for the future

I do have a few helpful tips: Use a fast fade instead of a slow one. A fast fade can cover up a multitude of tiny motions in the original footage. You can also achieve a nice transition by using the Explode effect instead of a dissolve. You may also want to experiment with other effects. Any effect that changes the screen quickly from the center and then moves out to the peripheral areas of the screen will work really well.

Remember, this is video. You can get away with almost anything!

## TOASTER POST TIP

**Not all people in post production happen to also be art directors or even artists, but there's a way for even the colorblind to get around this. The thing is: when you're doing a commercial which is all graphics, you have to use pleasing combinations of colors in order to make the commercial visually interesting. If you don't, you might as well be doing the commercial in black and white.**

**But who knows what good color combinations are? Is it OK to mix chartreuse with indigo blue? Orange with red? Well, art directors know. That's what they get paid for. So listen: we can use the same color combinations they use without ever paying them. How? Steal 'em, of course!**

**Look through your current fashion or video magazines. Look at all the great color combinations! Just clip out what you like and keep it in a scrap book. Look at MTV. Wow! Even though every color is over-amped, the combinations are wild. So keep a video clip file.**

**Hey, why not learn (read: steal) from the best!**

# CHAPTER VI

## CREATING "LETTERBOXED" VIDEO

**I**t's easy to give your video or commercial a wide-screen appearance with the Toaster. You've seen those TV commercials where they use the "letterbox" technique to make the commercial look more sophisticated. The letterbox is simply a thick, black border at the top and bottom of the screen. All the action takes place between the two borders. Conscientious distributors who adapt wide-screen theatrical films to video use the letterbox technique to avoid chopping off the right and left sides of the picture in order to fit the aspect ratio of video. How often have you seen a wide-screen film converted to TV and, where two people are facing each other, talking, all you see are the ends of their noses on each side of the screen. Because the aspect ratio of big screen film is much wider than the aspect ratio of TV, the letterbox technique enables films to be shown on television in their visual entirety.

Of course, letterboxing didn't start out to be a video editing technique. But many TV commercial producers--the best of whom have a well-developed visual sense--quickly realized that letterboxing their commercials created a wide-screen effect in the viewer's mind, enhancing the image of their product. They soon learned that there were other benefits as well.

### The advantages of letterboxing

There are three major advantages to using the letterbox technique. First, as we have already noted, you get a wide-screen effect. This means if you shoot your commercial with a wide-angle lens, you can capture a lot of background action in

the scene and still have your primary action taking place in the foreground. Second, the letterbox format resembles the way the human eye perceives scenes more precisely than any other technique. It is therefore more restful for the eye to watch a letterboxed production. That, in turn, makes a more indelible impression in the viewers' mind. And isn't that what advertising is all about? Thirdly, if you have information you want to convey to the viewer, and you don't want to superimpose text over it, you can place your text on the black borders. This works extremely well for phone numbers and product features.

### Creating your own letterbox matrix

To put this captivating technique to work for you, enter Toaster Paint and clear the screen to a solid black. Click and hold down the left mouse button on the current color box, which is located next to the range buttons and directly above the brush size selector. Doing so will display a vertical range of shades of black at the bottom left corner of the screen.

Hold down the left mouse button over the black shades and move the arrow on the first shade up from zero value to 16. Three 16's will appear in the gray RGB window on the color selection panel. Release the mouse. You have just selected the slightly lighter shade of black for painting your top and bottom borders. Using the lighter shade of black assures that it will not drop out during luminance keying, providing you with the letterbox effect.

With the lighter black as your brush color,



toggle the Normal/Coordinates button (or hit the "g" key), and click on the Rectangle brush and the Fill button, and draw a solid bar all the way across the top of your screen about 90 pixels down from the top. Do the same thing on the bottom edge. This will give you a nice letterbox effect, but don't be afraid to experiment with different thicknesses to suit your own taste or any special requirements.

Now name this "Letterbox:" and save it as a framestore and activate the Switcher (hold down the Shift key and tap the "Q" key). In Toaster 2.0, you will select the black clip button and then click the left mouse button on the clip level numbers, holding it down, drag them down to around 36. In Toaster 3.1, you will click on the filled-in black

button on the bottom row of the Superimpose control panel. Then click and hold down the mouse on the clip level numbers in the right hand corner of the control panel and drag them down to around 36.

Run video from your source deck into your Main bus. As the video plays, adjust the clip level up and down until you find the optimum setting where the video between the borders is pristine and there are no ragged edges or jaggies on the edges of the borders. Release the mouse and you'll now be ready to do an entire commercial in letterbox mode.

One tip to remember: you cannot fade in from black to a letterboxed scene with live video from

your source deck unless you have an A/B roll editing system. Instead, you will have to plan your production to open with a framestore and close with a framestore. Just texture-map whatever picture you choose for your framestore between the upper and lower borders. Then you simply

fade it in as you would fade in any other framestore. As you dissolve to live video using the keyed letterbox frame, it will match the borders on the framestores identically and you can go on and produce the rest of your commercial in the letterbox mode.

As you might have guessed, a cuts-only editing system also precludes you from fading a keyed letterbox frame containing live video to black. Instead, you'll have to use a framestore and dissolve to it

as the last shot in your video and then fade it to black the way you would any other framestore.

Remember, too, that while editing in a keyed mode on the Toaster, the only effects you can use are Take and Dissolve. In my experience, however, the letterbox effect more than compensates for the lack of any other eye-catching effects. These limitations are not as bad as they sound. Again, you can get by them beautifully with a little pre-production planning.

Don't forget to take a washable black marker and draw your letterbox borders on your field monitor before your shoot. Use this as a guide on your shoot, making sure the essentials of any shot lie within the middle confines of the borders.



**The letterbox format has become very popular in the world of TV commercials. Not only does it provide a pleasing experience for the eye, it allows the sponsor's name, phone or different product points to be displayed without disturbing the visual effect. This works especially well when a wide-angle lens is used to acquire the video.**

If you want to add graphics (such as a phone number or product points) to your borders, just load your border framestore into Toaster Paint (if you're using 2.0) and then exit to the Switcher. Now you can add text to your framestore in the CG as we discussed in Chapter Four. If you're using Toaster 3.1, bring up the framestore directory in the Palette requester and double-click on the number of your letterboxed framestore. That will make it the background image. Then you simply select the font(s) you want to use and type them in the upper and lower border. Hit F9 to preview your work and go to the two-monitor system (Hit the Help Button) to have a ghosted image of your letterbox framestore appear in your Preview monitor so you can see where your text is going.

You can experiment with different colored letterbox borders to get an MTV-type effect. Basic black (anything above 32-32-32), however, seems to be the most popular color if you intend to produce a "wide-screen" presentation. In the next Chapter I'll show you how to create vibrating letterbox borders. This is the next step in the development of the letterbox technique and the Toaster makes it easy. Let's face it, you can make the letterboxing technique any graphic screen size or configuration you want. Try a trapezoid! Experiment a little. Who knows, you may come up with the next step in the technique and make a mint!

Remember, as with any effect, don't overdo it. Have a valid reason for using it.

## **TOASTER POST TIP**

**When you are working in Toaster Paint and involved in saving screens as works-in-progress (i.e., inserting new text later or overlaying a graphic on a graphic), always save your work as an RGB Image. Make this a hard and fast rule. The reason is that each time you save a screen over again as a framestore, the color bleeds and degenerates. Try it and you'll be able to see visually what we mean. It's like going down in generations on videotape.**

**When you save a work-in-progress as an RGB Image however, there is no loss. No fuzziness. No degeneration. It may take a little more time and add a couple of more steps to your procedures, but you will find that this is the only way you can be sure that your final product will be the kind of top-quality work you can be proud of.**

## **TOASTER CAR TIP**

**Change the oil in your car every 2500--3000 miles. I don't care what the specs say about your oil or about your car. Change it often and your car will always love you and run perfectly for you--if it was properly put together in the first place.**

**If you change your oil often, your car will be a survivor. You will get 100,000 or more miles out of it. I got 109,000 miles out of my 1972 Ford Torino Wagon and 212,000 miles from my 1986 Mazda 626 2-dr. My 1989 Dodge Caravan has 113,000 miles on it.**

**Change your oil and you'll beat the system for a change!**

**By the way, never leave tapes in your car overnight, especially in hot or cold weather extremes. Condensation occurs and it'll ruin 'em.**

# CHAPTER VII

## CREATING EASY TOASTER ANIMATIONS

**T**wo-dimensional animations, where objects have height and width but no depth, come in handy in a variety of situations. Graphs with arrows that move up or down come to mind. Bar charts that change shape to the accompaniment of appropriate narration and images that shrink or expand on cue are other common uses.

Before the Toaster, I created such animations using Electronic Arts' DeluxePaint program. (I have every upgrade of this venerable program, from the first version to 4.0 AGA.) I would genlock my 2D animations onto my edit master, overlaying them on some picture or on black if they were to be isolated animations. As soon as I got my Toaster, I discovered there was an easier, faster way to accomplish the same task with very acceptable results. I call them "cheap animations," not so much because of how they look--they look very good--but because of the minimal amount of time they take to produce.

### **A basic principle you'll use over and over**

Before we begin, we should discuss a very important principle of the Toaster Switcher so we can get a good perspective on how this all works. Duplicate any framestore on the Toaster's hard drive. Just load any framestore and save it from the Switcher using a different number and name. Name it "Dupe #1" or something similar.

Put the original framestore in your Main bus and the duplicate in your Preview bus. Now, do a dissolve between the two framestores. Nothing

happens, right? Now do the Explode effect you used in Chapter Six. Again, nothing happens--except that you might see the faint outline of the explode effect on your Program monitor. The reason nothing happens is that if your framestores are identical, the only transitions that will effect them are transitions which take the whole screen on or off. The other transitions do not affect the framestores at all.

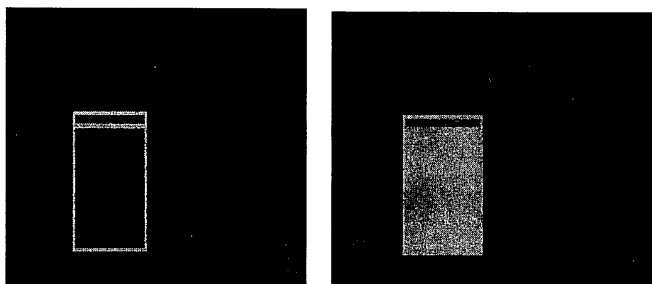
Load one of the framestores you've been working with into Toaster Paint and draw a 4-inch black rectangle in the middle of it. Duplicate it, so that you have two identical framestores with identical 4-inch black rectangles in them. Take one of the framestores and draw a quick design inside the black rectangle. It needn't be anything fancy, just something to make one framestore distinct from the other. Load the altered framestore into your Preview bus and load the other framestore (the one with the plain black rectangle) into your Main bus. Perform the Dissolve effect and then the Explode effect again.

Notice how the effects were visible only in the black rectangle area of the two framestores that was different? This demonstrates the aspect of the Toaster that makes cheap animations possible. The principle is: If two framestores have only a slight difference, such as the two framestores in the example above, the Toaster effect will be visible only in the areas that are different.

### **A More Practical Demonstration**

Let's demonstrate this principle in a more practical way. Enter ToasterPaint again, if you're

not there already, and draw the outline of a wide-mouth jar just to the left of the center of your screen. Save this as a framestore and then duplicate it. On the dupe, fill the inside of the jar with the color blue. Exit to the Switcher and load

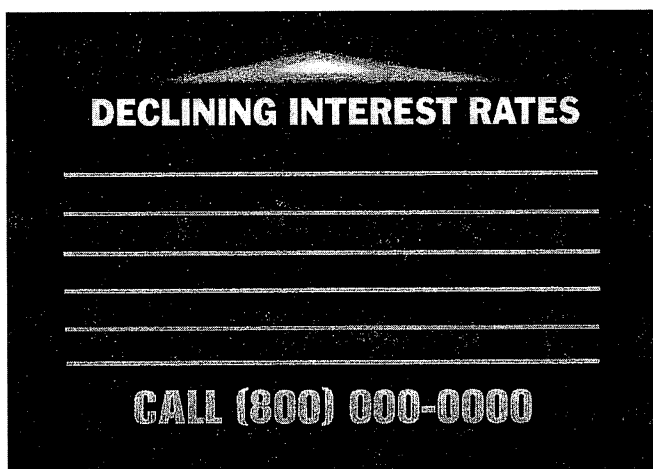


**This experiment with the two jars, one empty and one filled, best shows off the principle behind all easy Toaster animations--that only the area which is different on two otherwise identical framestores changes with the effect.**

the "empty" jar into the Main bus and the blue-filled jar into the Preview bus.

Click on the "Pour" effect (effect number 24 on "A" bank in 3.1). Set the transition speed to medium and activate the effect. Doesn't the jar look like it's filling up with blue water?

You'll observe that the effect occurred only in the area between the two framestores that was different. The pour effect didn't happen outside the jar area and across the entire screen, as it



**This frame shows the basic layout of a graph without the arrow. You can make the graphs all sizes and shapes. The only area that will change is the one which is different on the identical duplicate.**

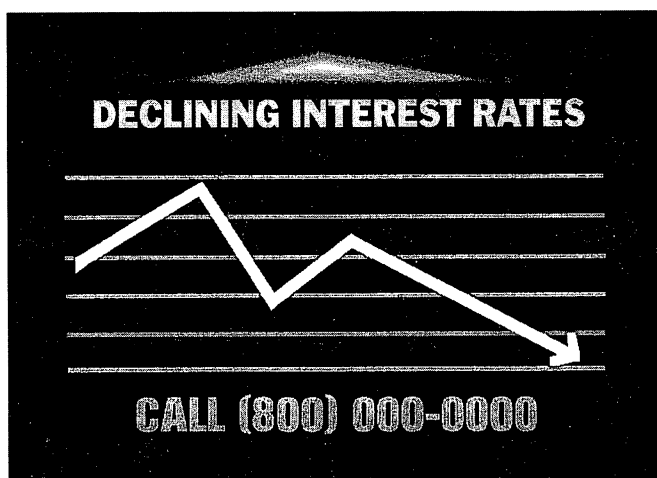
would have if you had used the effect to transition between two completely different framestores or scenes.

Bearing this principle in mind, you can do all kinds of neat effects. Let's say, for example, that you have a series of framestores, each with a picture and text. Each framestore has the same text, but the pictures are different. You can use a number of different visual effects to produce an impressive slide show. Try using the "Drop Blocks" effect and see how nice it works. There are many other possibilities as well. Using effects like these will imbue your presentations and videos with eye-catching zing, while putting you in the class of a professional video producer.

### **Creating easy animations**

We can also use this principle to produce some easy animations. In this first example, you'll create a graph overlaid on a picture of a house. The animation will be an arrow that moves up, then down, then up a little, and then down to the bottom. I've produced similar animations a number of times for mortgage brokers who are interested in illustrating the decline in mortgage interest rates.

The first step in this process is to draw a picture of a house--any style you like--on a black background and then make a dupe of it. Load the dupe into ToasterPaint and create the lines for the graph by painting a series of horizontal lines spaced about an inch-and-a-half apart. I like to use



**This is the duplicate graph with the arrow. Now, when you do a left-to-right wipe across the framestore from the Preview to the Main bus, the arrow will move downwards and to the right, appearing to be animated.**

red lines--red is OK when used over a black background--but the color really doesn't matter. Now draw an arrow on the duplicate framestore using the largest square brush available. Start it about three-quarters of the way up the left side of the graph and draw an ascending straight line, from left to right, about four inches and then descending about two inches and then ascending again about four inches and then straight down to the bottom right hand corner. You may or may not want to put a drop shadow along the underside of the arrow. Save this duplicate framestore and exit Toaster Paint to return to the Switcher.

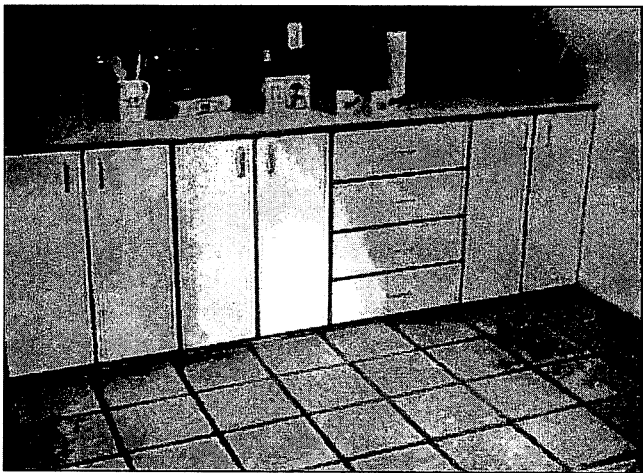
Load the framestore containing the picture of the house without the graph in your Main bus. Load the dupe (the picture of the house with the graph) into the Preview bus and set up a soft left-to-right wipe transition. If you prefer, you can use the hard-edged wipe. Either will work.

Set the transition speed to slow and tap the Spacebar. As the wipe moves from left to right

kinds of cheap animations. The up-and-down wipes are particularly useful for revealing bar charts. Once you have the principle mastered--that the effect is visible only in the area of the duplicate framestore that is different than the original--you'll find yourself creating interesting wipes and transitions of your own.

Another good way to use this principle is to reveal product points or features line by line from the top to the bottom of the screen. This trick will brighten up what may otherwise be a pretty dull video presentation because it forces the eye to read everything, following the text down as each point is revealed.

To do this for a video about a floor cleaning product, for example, you might reveal the product features over a shot of a kitchen floor. The first step, then, is to get a shot of the kitchen floor. Any floor will do for this tutorial. Make a framestore of



To reveal text line-by-line, you first must decide which framestore you're going to use for this animation. Clean it up and then take it into the Toaster CG in order to attach text to it.

Remember to put your Border and Shadow Alpha sliders to 255 so you'll get a nice opaque drop shadow and border.

across the screen, it will reveal the underlying graph and the arrow will appear to be animated, moving up and down and finally bolting downward to the bottom of the graph--done automatically by the Toaster's Wipe Effect.

Using the left-to-right and the up-and-down wipes and their opposites, you can accomplish all

To reveal your text line-by-line, put the framestore without text in the Program bus and the framestore with text in the Preview bus and click on the Wipe Down effect.

Place your cursor on the T-Bar and slowly drag it down. As the effect takes place, the text will appear line by line.

the floor and then duplicate it, so you have two identical framestores. Go into the CG (refer to the Chapter Four tutorials related to placing text over framestores for details) and position these product features over your framestore in bold, heavy text.

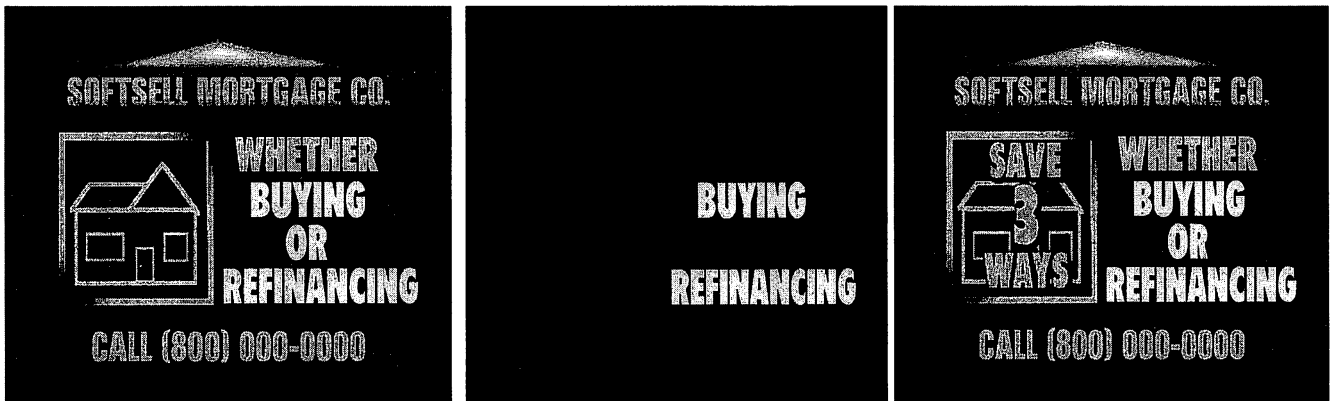
- \* Shines!
- \* Cleans!
- \* Restores!
- \* Finishes!



When you are finished, load the framestore without the text into your Main Bus and the duplicate framestore with the text into your Preview Bus. Activate the "Wipe Down" effect. Click your mouse on the T-Bar control and drag it down slowly. You will see your four product features revealed one-by-one!

To use this procedure in real-world editing, have your previous edit end up on the framestore of the kitchen floor without text. Your next edit will be set up as described above: the kitchen floor without the text in the Main buffer and the framestore with the text in the Preview buffer. I'm assuming your audio copy will call out these

live video if you wish. There are several variations of this trick. You can put in a single line and do a left-to-right wipe, so that your lines are revealed word-by-word across the screen. You can also repeat the left-to-right wipe four times for another variation. To do this, however, you will have to create an intermediate framestore after each line with the preceding line already on it and then do a cut after each line is revealed. Otherwise you will lose the line you just laid down. It's more work, but it shows great! I guarantee that if you are doing commercial video, you'll use these tricks more than any other.



To make the words "Buying" and "Refinancing" jump off the screen, duplicate your completed framestore twice in CG after you have added the text. Go to the first dupe and eliminate the background scene, making it 0-black. Then, using the Del key, take all the text off the page except the word "Buying." Now go to the next page and do the same thing with the word "Refinancing." Next, load your completed framestore scene in your Main bus and the framestore of the word "Buying" in the Preview bus and key it in. Next, select the ZOOM.TrIs effect and set the speed to Fast. Tap the Spacebar and watch the word jump off the page!

The framestore to the right has text in the frame over the drawing of the house. By dissolving from the framestore on the left to the one on the right, the text will magically appear over the house. Do a Wipe Down and it will be revealed line-by-line.

points at this place in your video.

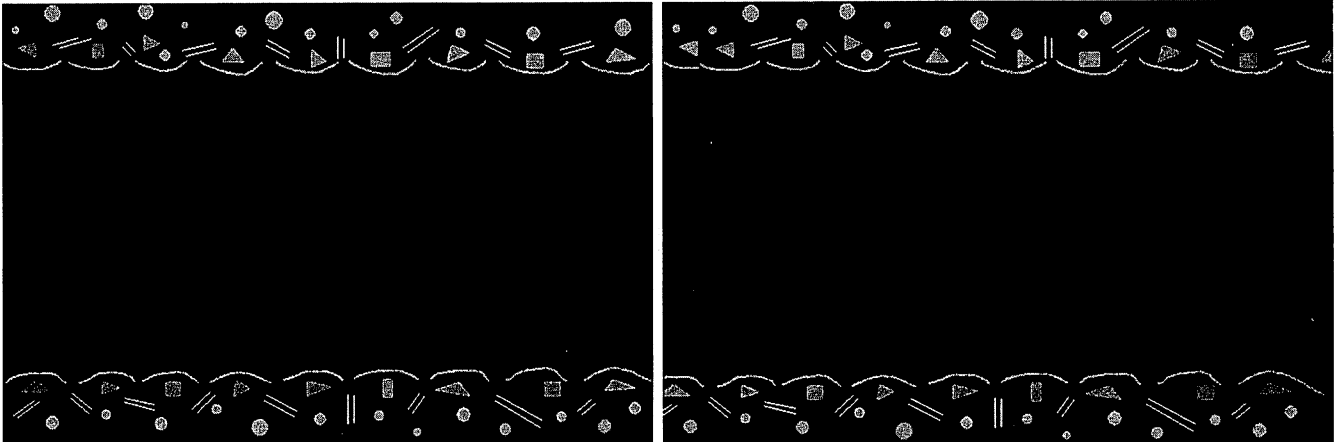
Set your edit point (remember to turn off your audio record channel, so that you don't record over the audio you've already laid down), and you'll pick up where you left off with a seamless insert edit into the framestore with your kitchen floor. Just before your copy ticks off the product features, click the mouse button on the top of the T-Bar control and drag the mouse down to reveal the product features as they are called out in the audio copy.

Since you will end up on a framestore at the end of this process, you can then do a dissolve to

## SOME EASY CHEATS

You can use the Toaster to do a number of other little things that will enhance what might otherwise be a boring, static TV commercial. In this example, you can make text jump off the screen and pop back on again, drawing the viewer's attention to key words and phrases.

The words you want to accent are "buying" and "refinancing." Create this text first in the CG as part of the framestore you're going to use in the commercial. Then duplicate the CG page onto two other blank pages. Be careful that you do not alter or



**These two border framestores may look the same, but they are not. The borders on the left have each been slightly shifted to the right. Since they are not lined up, they will appear to vibrate when the Transporter Effect is used according to the tutorial on this page.**

**This same effect will work in a number of different ways. For example, you can put the word "SALE" on two separate framestores, but put a pink border around the word "SALE" on one of them. The Transporter Effect will give them a flashing, neon appearance.**

change the text in any manner from the way it was when you rendered your final framestore of it. The two duplicate pages must be exact!

Go to your first duplicate page and remove the background image so what you have left is essentially a key of all the text. Next, using the Del (delete) key, get rid of all the words in the text except the word "buying." Again, be careful not to move the word "buying" even one click one way or the other from its original position. Do the same on the second page with the word "refinancing." Now you are ready to make these two words pop off the screen and spring back when you edit this sequence.

The transition you'll want to use for this effect is Zoom.TRLS. It's not in 3.1 but you can load it from the Setup Screen as SYS 2.0 AA. To make it work, set up your completed full text framestore in the Main buffer, load the CG page with the word "buying" on it into your Preview buffer, and key it over the text. If you cleared the other words out correctly without moving the word "buying," you will find that the key makes no perceptible change in the way your text framestore appears when it is keyed. This is despite the fact that the word "buying" on your CG page is keyed over the word "buy" on your text framestore.

Set the transition speed to Fast, activate the Zoom.TRLS wipe, and tap the Spacebar. The word "buying" will jump off the screen and then

snap back again to its original position. In the editing process, a split-second before the narration says the word "buying," tap the Spacebar and the "buying" will do the exact same maneuver, accenting the word. Stop your edit and load the "refinancing" word from the CG and key it over the text framestore the same way, activating the Zoom.TRLS wipe in the Fast speed mode. Set your edit point on the narration track of the edit deck to the word "or" and hit your make-edit button. Listen to the narration in pre-roll and when the word "or" is said, hit the Spacebar and the word "refinancing" will jump off the screen in the same manner.

You will also notice that as the word jumps off screen, it also remains in place on screen. You can also use this effect by wiping out the word "buying" or "refinancing" on the text of your completed framestore. The word will now jump off the screen leaving an empty space until it snaps back onto the screen again. I prefer the other method myself, but that may not be your preference. Try them both and make your choice. But remember, it's the movement that counts.

Since the viewer's eye follows movement on the screen, such a move will indelibly impress these two words in the viewer's mind; at least at the level of the subconscious mind. Thus, an essentially static message is now able to make an impression and also keep the viewer's mind interested in what's coming next. Accented action

sells. Remember, when you are doing a TV commercial you have to make use of all the hidden persuaders you can. If you don't, your client may not be calling on you to do the next commercial.

A small hint: do not try to make text above the horizontal midpoint of your framestore jump off the screen. That's because this particular transition will make the words jump off in an upward manner and that effect isn't that good. On the other hand, this might be just the kind of effect you are looking for in some special case, so try it and see what it does and decide for yourself. Remember, the Toaster has created a revolution with no limits so there are no limits on your creativity!

## Easy Animated Letterbox Borders

Another neat effect you can create with a Toaster "cheat" is that of an animated letterbox border. This animated border idea is becoming increasingly popular among big-time commercial TV art directors; it's a natural progression from the simple, black letterbox format.

Let's say you want to create an animated letterbox border for a Mexican restaurant. Go into ToasterPaint and first determine your border parameters: probably about 90 pixels down from the top and 90 pixels up from the bottom. Activate the Coordinates feature to do this. Draw a bright purple horizontal wavy line across the screen at each of the 90-pixel levels. Fill in the top and bottom areas with the same color. Now you have a letterbox-style format that is curvy and brightly colored, instead of straight and black. You'll have nothing but 0 0 0 black between the top and bottom borders.

Now draw some Mexican-Indian designs in the top and bottom border areas. Keep the design simple, but make it colorful and don't kitsch it up too much. Find some examples in a book on Native American or Mexican art. Save the border as Framestore 500. Important: make sure that you have activated your coordinates; you'll need that information for the next step.

Use your rectangle cut-out tool to cut out the entire top border of your framestore (it will remain on the screen attached to your cursor). Match up the cut out border with that on your framestore and make a note of the coordinates reading. Now go to your Swap Screen and position the cursor at the exact same coordinates as it was on the previous screen. (Here's a tip: if you hold your mouse in

place and simply tap the "J" button to get to the Swap Screen, your cut-out will be in exactly the same place!) Now just move the cursor about 5 to 8 pixels to the right and stamp it down on the same horizontal plane. Repeat this process for the bottom border. What you will end up with is another set of borders which are visually the same but slightly off center from the original set. Now save your Swap Screen set of borders as a framestore and number it 501. It is essential that you save the two framestores as successive numbers in order for this animation to work.

Exit to the Switcher and select any of the four "Transporter" effects--usually on Bank F. Notice that there is a small "no framestore" icon in the corner of each of these four effects. It looks like a piece of film with a line drawn through it. Select one of these effects and then load framestore 500. The Toaster will proceed to load framestore 500 *and* framestore 501, making the two framestores flash back and forth on the Program monitor. The rapid alternation between the two framestores will make the letterbox borders appear to be animated. You can't change the speed of the animation, but what the heck--you've got a cool, easy animated border.

If you have a cuts-only system, run off about 60 seconds of this border animation onto tape. In the editing process, key-in live action in the middle of the borders. You will have to start abruptly with no fade-in, however. Also, you will have to go down a generation to make this happen, but the border is just a device to frame the rest of your commercial; it won't be significantly marred by the generation loss. On an A/B roll system you can easily fade in the vibrating borders along with your live action and you'll have a nice effect for editing purposes.

One of the many fun things about the Toaster is that the visual material you're working with often forces you to experiment with all the different techniques available on the Switcher. When you do that, you're sure to come up with your own inventions. View everything as a challenge to your creativity and your ingenuity. The Toaster will help you do the rest!

# CHAPTER VIII

## SHOOTING VIDEO FOR TOASTER EDITING

**S**hooting video for editing with the Video Toaster is not all that different from shooting video for any event, but there are some changes in thinking that you'll have to make if you are going to take full advantage of the Toaster's power.

There are many things you can create through pre-production planning that will enable you to use the Toaster to produce more interesting and effective videos and commercials. You just need to change your mindset from the beginning.

For example, you'll need to plan where you'll use fake A/B roll edits and then advise the director and the camera operator to make sure everything in the scene is motionless at the end of the shot. If you're shooting a commercial or a video that will be letterboxed, you'll need to draw lines on the field monitor that represent where the borders will appear. And you'll need to tell the camera operator to keep the action centered between those lines.

If you plan to use an over-the-shoulder window in a scene, you'll need ensure that the camera is moved at the appropriate time to make room for the window. If you're planning to use a cut-out window inside a still frame with live video, you'll need to draw that area on your field monitor and make sure all essential movement is confined to that area.

None of this is really difficult. You just need to be aware of what needs to be done in advance to take advantage of certain Toaster effects. Take some time to go through your entire script and make a quick storyboard with thumbnail sketches showing how you think you want to handle each scene. If you're the producer, listen to what your director and your camera operators have to say.

They'll often have a different perspective on the production. If you're smart enough to recognize the validity of their suggestions, they will often make your job easier and your work more visually interesting.

### **Working with a production crew**

Your job, as either producer or director, is to create an atmosphere of cooperation. Accomplish that, and your crew will want to buy into the project because they'll feel that you are making them a part of what is going on. This is the type of atmosphere that all producers and directors should cherish. It doesn't come from being dictatorial, but from being a good listener and a good leader. This doesn't mean that you should give up your authority, it just means that you'll gain the kind of cooperation that will empower you with true authority. Try to effect a kind of "cooperative willingness" that the others will buy into. If they are made to feel a real part of the project, you will find that many times they will save your cart from getting dumped.

A word about crews: I recommend that once you form a good crew, you use the same people on every shoot, if at all possible. This way, they not only feel loyal to you for providing them work, they come to know your style and can work with you rather than against you. I have had the same crew for five years; when we approach a production, each of us already knows what is expected of him or her. Believe me, it's well worth the effort to build this kind of trust and camaraderie.

Remember, though, that you are probably the only person who has an idea of the big picture--

how everything fits together. As a producer or director, it's your privilege to make the final decision. If you're not good at making decisions, you should be in some other line of work.

If you're going to do A/B roll editing, one of the most important decisions you'll have to make before you begin shooting is which shots will be A-roll and which will be B-roll. If you don't have the proper B-roll shots on the B-roll, you'll have to go down a generation to do a dissolve. This is a mistake commonly made by rookie directors. Once they make it, however, they never do it again! Flyer owners will not have this problem, however.

## SOME HELPFUL HINTS FOR GOOD PRODUCTION PLANNING

Since this is a chapter on shooting video, let me give you a few hints that have nothing directly to do with the Toaster, but will help you get the best video to bring to your Toaster post-production sessions.

1. Never shine light directly on anything or anyone. Always reflect light off a big piece of foam core or use a diffuser or a gel. Proper lighting will prevent the harsh edges commonly seen on public access television and will give your videos a professional look.

2. Throw a foot-wide swath of colored light--usually blue--on any wall or drape that may be in the background of the scene. This will reduce the harshness of the backdrop and add depth to your shot.

3. When shooting indoors, always bring along at least a 19-inch field monitor with which you can check your lighting. Most lighting flaws won't show up on a 5-inch or 10-inch monitor, no matter how high their resolution. Also, try to have a monitor on hand for the client to view and put it somewhere far away from the action.

4. Make sure your camera is level and check it occasionally against any straight, vertical lines that will usually be in your shot. There's nothing worse than going into your editing session and seeing that all the vertical lines in the scene

lean to the left or to the right. That's another mark of an amateur.

5. If you are shooting with sound, use a separate sound person. Don't try to do sound yourself by simply checking needle movement on the deck. A dedicated sound person will monitor the sound as it's being recorded and can immediately alert you to airplane noise, static from a wireless microphone, or any of a number of other sound problems that can spoil an entire shoot if they're not detected early on.

6. It doesn't hurt to have a tape operator or even to ask your sound person to handle tape operation. If you're directing or operating the camera and trying to operate the tape deck, you will more than likely at one time or another get caught up in what you're doing and think the tape is running when it's not. I can almost guarantee that will happen to you at least once if you are not using a tape operator. Or the reverse will happen: you'll think the tape is stopped when it is actually running. When you later view your tape, you will experience one of the biggest moments of depression known to humankind--video of what went on *between* the shots!

On one of my low-budget shoots I noticed that my cameraman--who was also operating the tape deck--failed to run the tape on a scene. I caught it in time, but had a mental flash about the two rolls of tape we had already shot.

"Did you get the other stuff on tape?" I asked.  
"I think so," he replied.

"Well, what if you didn't?" I continued.

He stopped what he was doing, looked me straight in the eye, shrugged his shoulders, and said "Operator error, I guess."

Because I didn't have a tape operator on that shoot, I had increased the chances that the camera operator would make a mistake. If he did, the fault would be mine, not his. He was right.

7. Always run your field monitor from the record deck, never the camera. That way, you know if the picture from your camera is being recorded. This is called "confidence" monitoring.

8. Always record in time code mode in the field if you have a time code edit system. If your editing decks don't have time code (such as the



old Sony 3/4" 2860's), don't run time code on your field record deck. Tape with time code tends to roll (you'll see a thick black line rolling between scenes) on this system in the editing process.

**9.** Slate all of your shots with the scene number and the take number. You'll probably want to buy a studio-style clapboard to use as a slate because it's really cool and says you're a professional. Most of the time, however, I just use a simple clipboard. I clip a piece of paper on it on which I've labeled with a marker: Reel #1, Shot #1, Take #1, and so on. I always make sure I have all this information so that my scene retrieval during editing will be sure and easy. If you don't have a clapboard, tear letter-sized paper into quarters and put it in a clipboard, disposing of each sheet after the scene is shot.

Slating may seem like a lot of work at the time, but you'll be glad you did it when you start your editing session. By the way, if you forget to slate a scene, slate it after its been shot, holding the slate upside down. During editing, this will let you know that you are "back-slating" the previous scene.

**10.** Always have your tape operator record at least 30 seconds of color bars on each of the tapes you think you will be using on shoot day. This will come in handy if you get into a tight situation, such as toward evening when you're losing the natural light of the sun and you have to change tape fast. You can change tapes and begin shooting without any unnecessary delays if color bars are pre-recorded.

Of course, you can always change tapes, begin shooting without color bars, and put the color bars at the end of the tape. But one of the reasons for putting color bars at the front of the tape is that the opening seconds of any blank tape are subject to flaws and drop-outs. It will save you a lot of heartache if those flaws show up only over color bars.

**11.** Never leave tapes in the trunk of your car--day or night. Both heat and moisture condensation can render a tape unusable. Always label and number your tapes before you begin shooting, so you don't have to fool with it later.

**12.** Never settle for just one take; always do at least two. I know, I have broken this rule a number of times, but it's still a good rule and I find my conscience is clear if I know I have at least two takes of every scene in the can.

**13.** If you shoot scenes that will have voice-overs, have someone read the script while the scene is being shot. That way, you'll know whether or not you're making the right moves at the right time. But more importantly, you'll know if you're shooting enough visual material to last the entire narration. If you end up with too little, you'll have to freeze-frame the end of the scene and your mistake will be painfully apparent to the viewer.

**14.** Don't try to be both the director and the camera operator. You're going to either suffer in the quality of direction or in getting good shots. Few people have the experience to do this well. There is just too much going on--especially if your client is there breathing down your neck--to play both roles. Be a good director or a good camera operator. You can't be good at both.

**15.** Never work without a written contract! That goes double when you're doing a video for your best friend! Get at least half of your fee before you begin shooting and get the other half when you hand over the edited master or the master. Never let a master tape go without being paid for. Never! The master tape is your only security until you are paid in full. Never work on your money. It's not your responsibility to finance your client's video or commercial.

**16.** A shoot day is 10 hours long. The first and last hours are for set-up and break-down, leaving eight hours of shooting time. The client should pay for lunch and have coffee and goodies around in the morning. Always include a contingency for overtime in your contract and always let your client know when you are going into overtime. At lunch, consult with your director on how things are going. Try to determine whether or not you're half-way through the day's shoot and if you can expect to finish on time.

**17.** Good lighting is the single most essential ingredient for good video. Always back-

light your talent, i.e., put a light behind him or her, off to the side and aimed at their head and shoulders. This will make them stand out from the background.

Hire a grip who knows what's happening. If the grip has his or her own grip truck, so much the better. Make sure he or she brings along a variety of "apple" boxes that can be used to raise the camera. Also a variety of wedges that can be used to steady the camera if you're trying for artsy shots with the camera on the floor.

18. If you're shooting from within a house and through the windows, always cover the windows with CTO (Color Temperature Orange) gel. If you don't, everything outside will look blue on your tape. You've probably seen this before, perhaps in a low-budget movie. The reason for this is that you're using tungsten lights inside and there's sunlight outside and your camera has to balance for the inside shot.

For the inside, if you have a lot of natural light coming in through the windows, put "half-blue" gels over your tungsten lamps to compensate for it. Try to avoid using fluorescent lighting; it

turns everything green.

19. If your talent is having problems doing a long speech in one take, split it up into shorter takes. Disguise the breaks by changing your framing from a close-up to a medium-long shot to a chest shot. That will save you a lot of time and it won't affect the end result at all!

20. Don't panic if you get home after a shoot and find that you've forgotten to shoot an important scene and you know there will be no chance of recapturing that moment. You can always find a way to fix it in post production. Nine times out of ten you will be able to manipulate scenes in some way to cover the error. This is video, remember, and you can fix just about anything in post!

Twenty good tips are enough. There are plenty of good books on shooting video or film available. I do advise anyone interested in shooting video to work with a crew a few times before you go out on your own. There is much to learn and you can learn it the easy way--by observing an experienced crew--or the hard way--making those stupid mistakes. yourself.

## TOASTER POST TIP

To play your Lightwave 3D Easy Anims (your flying logos, for example) from the Toaster Switcher, find the file in your Framestore drawer and then click on Load. Your animation will load into your Preview bus. Now all you have to do is tap the Spacebar and it will play. Don't try to key your Easy Anim over live video or a framestore. Unfortunately, it won't work unless it's 25% of the screen or less.

Incidentally, this is where any scrolls or crawls will load also. These can be keyed by highlighting the appropriate DV bus in the Superimpose panel and then finding the appropriate clip level. Start your scrolls or crawls by tapping the Spacebar.

Also, for those of you who shelled out the extra bucks (as I did) to get a maxed-out 18 MB of RAM so you could play Lightwave 3D animations from the Switcher, be advised that you can only play back animations full-screen if they have been rendered in low resolution. You can't play back animations rendered in high resolution in full screen, but flying logos--which take up less space--will probably work.

The manual says "See LightWave for further information," but there is nothing in the LightWave section to bear this out. I do hope NewTek puts out a decent second-edition of the Toaster 4000 manual in the near future. The number of errors in the first edition (I know, it was rushed out and I can appreciate that!) is a very good reason why every Toaster user should join a user group.

# CHAPTER IX

## USING THE TOASTER'S GENLOCK UTILITY FOR VIDEO PRODUCTION

**T**he amazing Amiga platform became the computer of choice for video professionals because it was built to sync to a television signal from the very beginning of its existence. I don't know who was responsible for this decision, but it was a very wise one. Without the ability to sync to video, you'd have to buy a lot of extra electronics--like PC and Mac users do. So let's hear it for the Amiga as we explore one of the greatest benefits of that sync capability: the genlock.

Before the Toaster came along, I used an Amiga 1000, DeluxePaint II, and a Digital Creations SuperGen genlock to overlay graphics and stuff on video. It's hard to believe, but I actually produced a few videos and commercials with that setup. And I got paid for them! After I bought my first Toaster, it took about two seconds for me to realize that I could sell off my SuperGen and that I would be using DPaint much less than before. Unless you have been through this transition yourself, you have no idea what the introduction of the Toaster meant to us video people. You can't imagine how difficult it was to build supers with dropshadows in DPaint compared to the ToasterCG!

I haven't abandoned DPaint altogether, though. I still use the old standby to create simple 2D animations that the Toaster can't do from the Switcher. An example of a DPaint project I created is the front page of a newspaper that spins in 360 degree rotation as it grows bigger and bigger, finally stopping when it fills the screen with the headline screaming its message. That's an easy project for DPaint. In fact, there's even a

tutorial in the DPaint manual that will show you just how to do it. Once you have finished your spinning masterpiece, however, you have to find a way to build it into your production. That's where the Toaster's genlock utility comes in.

The Toaster's genlock performs two basic functions: It allows you to use the Toaster as a simple switching device for cuts, fades and dissolves, and it allows you to overlay RGB graphics from your Amiga onto video--either through a cut, fade, dissolve, superimposition or, most importantly, through keying over live video. It is the latter function that we are going to be concerned with in this tutorial because this is how you use third-party software--like DPaint--with the Toaster.

You get into the Toaster's genlock utility a bit differently in version 2.0 than you do in 3.1, but the first step is the same for both: boot up the computer, enter the Toaster Switcher, and then exit the Toaster. You can exit the Toaster either from the setup screen or by simultaneously pressing the Ctrl, Alt, and F10 keys on the Toaster's keyboard. In either case, you will be returned to the Amiga's Workbench screen and the open Toaster window. It is from there that you will enter the genlock utility.

To enter the genlock utility in Toaster 2.0, simply double-click on the icon labeled "Genlock" that appears in the Toaster window after you exit the Switcher. Getting to the genlock utility in Toaster 3.1 is a bit more complicated. Upon exiting the Switcher, you'll find the Toaster window containing icons--among others--labeled Start Toaster and a drawer labeled Toaster.

Double-click on the Toaster drawer and it will open a window containing two icons and a drawer. One icon is labeled "Video Toaster" and the other is "Auto Hue," but it is the drawer labeled "Utilities" that we're interested in. Double-click on the Utilities drawer and it will open yet another window, this one containing three more icons. Double click on the icon labeled "Genlock" and you're in!

Take a moment now to study the genlock screen. You'll see two rows of keys: an Auto key for dissolves, a Take key for takes, and a T-bar that you use with the mouse to control the speed of a dissolve. You'll find that the T-bar is the only control that works with the mouse. The others are operated strictly from the keyboard.

Before you can use the keyboard to control the genlock, however, you have to activate the appropriate keys to make them "hot." Pull down the Activate

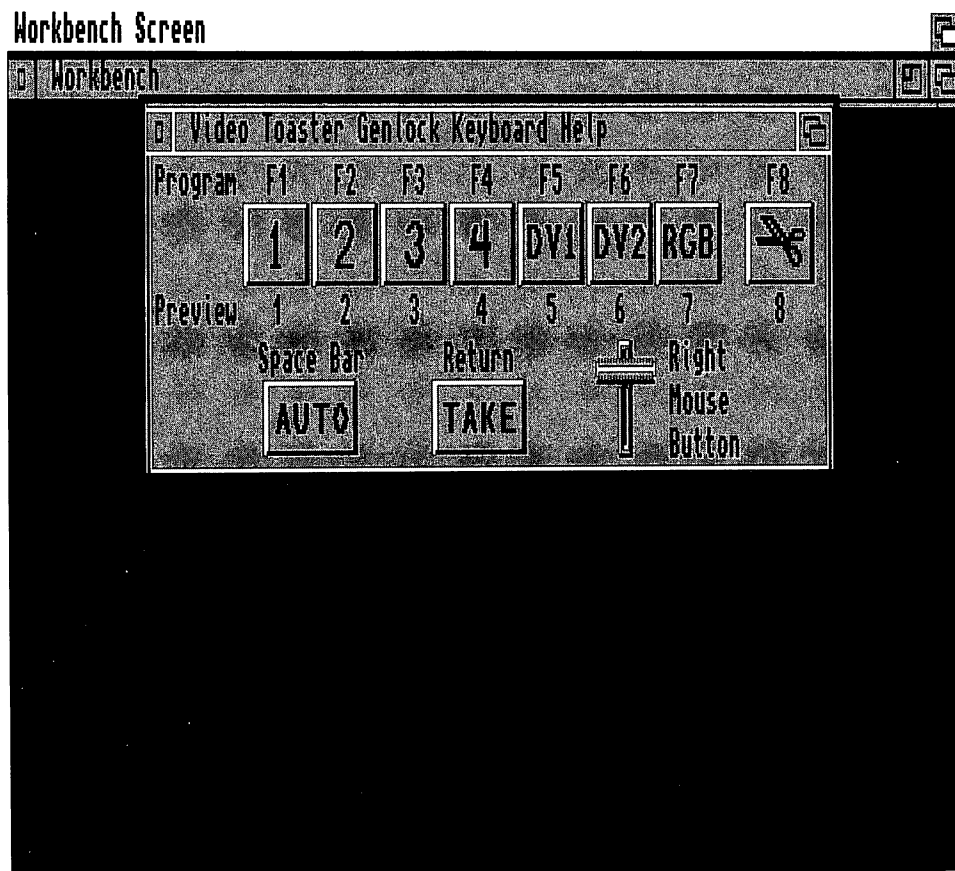
Key menu from the top of the screen. Notice the check mark next to the menu item labeled Ctrl. That indicates that you'll have to hold down the Ctrl (control) key at the same time you press any of the other keys in order to trigger an effect. A

better alternative is to select the Caps Lock key from the menu and use that as your "hot" key. That way, when you press the Caps Lock, the "hot" key will stay engaged and you won't have to use two hands to access the Toaster Genlock's effects.

As we discussed previously, the T-bar control is the only genlock function that works with the mouse. It's not even necessary to click the mouse arrow on the T-bar. If you wish to do a slow dissolve, for example, set up your source video in

the Preview bus by pressing the "1" key and set up your record-deck in the Main bus by pressing the "F2" key. With the mouse pointer anywhere on the screen, hold down the RIGHT mouse button and drag the mouse down at whatever speed you want the dissolve to take place. This technique also works with framestores loaded into the five and six slots on the Preview bus and the F5 and F6

slots on the Main bus. But remember, if you want to use Toaster framestores, they have to be loaded into the Toaster's Preview and Main busses before you exit the Switcher screen. The images will be visible on your Preview and Main monitors when



**This is the way the Toaster's Genlock Utility appears on your RGB screen. To access it, you have to first boot up the Toaster and then exit the Toaster. You'll find the Genlock Button in the Utilities Drawer within the Toaster Drawer. Just click on it and this screen will appear. You will use the Genlock utility right from this screen to key third-party software over live video. Knowing how to use the Toaster Genlock will certainly come in handy, sooner or later.**

you enter the genlock.

Our main concern, however, involves getting third-party software--such as DPaint--to key over live video. Use the pull-down menu to activate your Caps Lock key as the hot key, but don't actually press the Caps Lock key yet. If the Caps Lock key is pressed into the "on" mode, indicated by a dot of green light on the key, the Toaster's cursor won't work in DPaint or any other third-party software. So, with the Caps Lock key activated, but not pressed, enter your DPaint program (yes, you can multitask from the Toaster's Genlock. Hit Ctrl, Ctrl, Alt, Alt) and load your 2D animation into the computer's memory. The animation's first frame will appear on the Toaster's RGB monitor. You won't see the Toaster Genlock screen, but it's there just waiting for you to activate it by tapping the Caps Lock key.

Set the edit-in points on both your record deck and your source deck, the one that will feed the live video over which you're going to genlock your 2D animation. Now press the Caps Lock key to turn the Toaster Genlock on. You still won't see the genlock screen on the RGB monitor, but all the keys on your keyboard that will control it are now active. Press the F1 key on your keyboard to activate the number one channel on the Main genlock switcher and also the F8 key. You will now see the first frame of your DPaint animation keyed in the Program bus. When you tap the make-edit button on your edit controller, and the decks reach their edit points, the first frame of the animation will appear keyed over the source video.

I cite the example above only to demonstrate to you that you can key a third-party animation frame over video immediately. You can also load a frame or animation into the Preview buffer by pressing the "8" key instead of F8. You can cut the frame in by tapping the Return key or dissolve it in by tapping the Spacebar. One of the best effects is to fade your animation in and out over video when desired. To do this, make sure the animation is in the Preview Monitor (Select the 8 Key) and then hit the Spacebar. This performs a pre-selected half-second fade-in or fade-out. For longer fades, use the RIGHT Mouse Button, but be careful not to release the button or the animation will stop. I usually recommend making the first frame of your animation black and then pressing the F8 key at the point you want it to key.

Now, instead of appearing immediately when the edit hits, the animation won't start until you activate it by tapping the appropriate DPaint trigger key. An instant before you do that, however, you'll have to tap the Caps Lock key to de-activate the genlock keys. Don't worry, your animation will still be genlocked over the source video. By the way, other 2D animation programs besides DPaint also work with the Toaster's Genlock.

There are many interesting variations to this simple demonstration of how to key an animation. For example, you can key DPaint over your live video source and paint or draw right on the screen as your live video is being fed. This can make for some nice effects. You can also create a colored arrow in DPaint, give it a drop shadow, and then cut it out and attach it to the mouse cursor using the right mouse button and DPaint's "Brush Selector" tool. When you genlock the arrow over live video, you'll have a big moveable pointer you can move around the screen simply by moving your mouse. This will come in handy in scenes where you need to graphically point out different areas or words. You can also use the cursor arrows, if you don't mind the jerky look that results, to move objects around the screen.

If you want to display an animation or a framestore without keying it over live video, use the F7 key, which will output RGB video directly to the Program monitor. Tap the "7" key and your RGB video will be loaded directly into the Preview bus. Once there, you can cut or dissolve it into the Main bus and the record deck.

Here's a tip: you can also use Lightwave 3D in the Toaster 4000 platform to put together your DPaint animations and then play them back from the Switcher.

Once you understand these basic procedures, you can use the Toaster's Genlock utility for many other interesting effects. You can use it with any third-party Toaster software or just use it for simple editing. You may find, on the other hand, that you never use it at all. But it's always there and if you need to use it just once to save yourself the \$500 or so you would have otherwise spent on an external genlock device.

The Toaster's Genlock utility may seem intimidating at first, but if you will practice using it, you will soon be making it a part of your post production arsenal.



# CHAPTER X

## USING LIGHTWAVE 3D FOR GRAPHICS AND FLYING LOGOS

**S**tudent: "Professor, I have discovered something which will be a boon to humankind!"  
Professor: "What is it?"  
Student: "An electric boon!"

A "boon" is a welcome benefit and that's just what LightWave 3D is to anyone who uses the Toaster for video post-production work. If you're not into LightWave, don't be intimidated by it. If the thought of using LightWave gives you a case of the cold sweats, find a friend who knows it well and have him or her show you around. If you don't know anyone capable of that, buy one of the many excellent books or video tapes that are available and teach yourself its arcane wonders. LightWave 3D represents a whole chest-full of post-production tools you can use effectively and many of them are no-brainers.

I'll assume that you already know how to enter LightWave and that you already know how to load an object or text into LightWave's Layout screen. If you don't, the Toaster manual will explain it to you. It's no big deal. All we're going to do here is manipulate objects in the Layout screen and then texture map images and surfaces onto them.

There are certain things that can't be done in the Toaster Switcher but which can be accomplished using some of the more basic aspects of LightWave. For example, you can't insert a window in a video production that's canted (slanted slightly to one side or the other). You can make your window a trapezoid of some

set of esthetic measurements and then texture map a scene inside of it, but the scene will still be flat and head-on. It won't have any perspective conforming to the position in which it is canted.

If you have Alpha Paint or Toaster 4.0 you can achieve this effect easily, but even so, it's a lot easier to do it in Lightwave 3D.

With LightWave 3D, you can create a window frame at any angle, texture map your still scene onto it and then key it over your video in perfect perspective. Toaster 3.1 makes this very easy because it has a window frame already constructed and pre-loaded into the system as an object. It also has a two-sided window frame you can use, but more about that later. Toaster 2.0 users can use the Canvas object in the Tutorials directory in the Objects drawer. If you're adept at modeling, you can also model a frame around the canvas and lo! You have a 3D window frame.

### Creating a canted window frame for keying

The first step in this process is to make sure that the scene you want to appear in the canted frame is saved as an RGB (IFF) file in your Images drawer in ToasterPaint. The file must be in this format in order to be loaded into LightWave in 2.0. In 3.1, you can also load in your frame as a framestore, but I still prefer storing a graphic which is to be texture-mapped as an IFF Image. That way there is less degradation of the image in the saving process

As a precaution against RAM cram,

disengage the ToasterCG and ToasterPaint by holding down the Shift key and clicking on their icons. You may also want to load the "Get Small" project which eliminates all the Toaster effects, providing you with more RAM to work with.

## TOASTER 2.0 TUTORIAL

Enter LightWave and open the Objects drawer and load the "Canvas" object in the Tutorials directory into LightWave's Layout screen. To get to the Layout screen, click on the Layout button.

Once in Layout, you will see the rectangular canvas in the Layout window. Manipulate and position it where you want it by clicking on the Camera View in the View Mode panel and then clicking on Object in the Edit Menu. This will highlight the frame in the Layout screen window, making it ready to be manipulated.

Click on the Rotate button in the Mouse Function panel and move the cursor to the Canvas object in the window. Hold down the left mouse button and move the mouse up and down and left and right. Notice how you can move the object along both its "X" and "Y" axes. Now you can use the mouse to move the frame into the canted position you want it. Once you're satisfied with the position of the frame, click on the Move button in the Mouse Function panel, then hold down the left mouse button while pushing the mouse forward and backward, along the "Z" axis. Using these tools, you can size the object, making it

*\*Banner used with permission of the Nicholas Roerich Museum, New York City*

bigger or smaller simply by moving the mouse. When you're satisfied with the size of the frame, place it where you want it in the scene and get ready to lock it all into place.

In this step, you'll create the important keyframe for all the items in the scene. This will lock the object, the light source, and the camera into position. If you don't do this, all of your work will be lost when you exit the Layout screen. Click on the Create Key button and when the requester

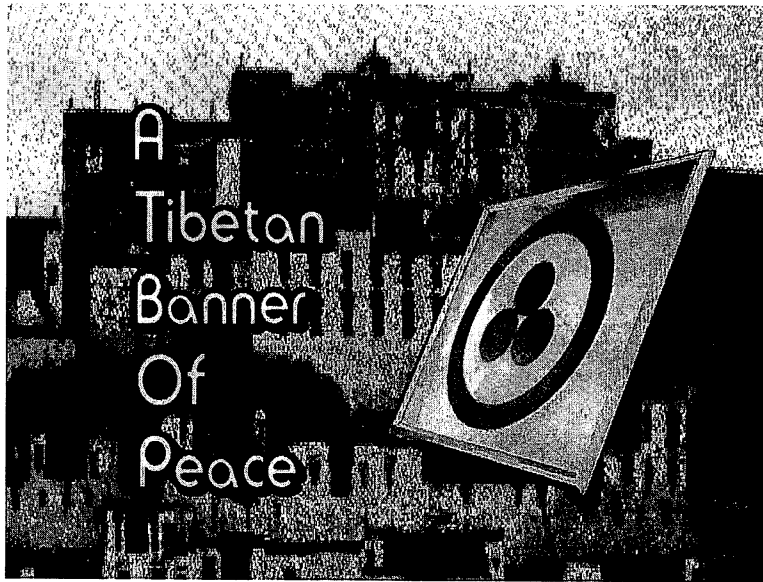
appears, type in a "0" and then click on "All items" and then click on OK. This will create a keyframe at frame zero. Finally, click on the Exit Layout button.

You'll want to key this window over live video, so you'll need a zero value black background. Click on the Backdrop button. On the requester that appears, click first on the Zenith Color Only button and then on the Zenith Color button. This will bring up another requester with three RGB sliders in it. Using the mouse, drag each of the sliders all the way to the left (to 0), then click

OK. You now have a 0-value black background for keying purposes.

## Applying your image to the canvas

Now click on the Images button and then on the Load Image button in the requester that appears. This will display a window with all of your RGB frames in it. Find the RGB frame you want to use, select it and click OK to load it into the system. Next, click on the Surfaces menu and then click on



**To cant a frame and fill it with a framestore image, load the frame in the Objects drawer in LightWave3D and then use the tools in the Layout Screen to move it into the position you want. Use the Images Drawer to select an image to go inside the frame. Render it with a 0-Black background and you will be able to key it over live video. You may also load a framestore in the background using the Effects Drawer on the Layout Screen. Then, pick up the composited image in the Switcher Screen and take it into the Toaster CG to add text.\***

the Surface Color button on the requester that appears. Ignore the color sliders and click on the Texture button. The requester will disappear and a long bar labeled Texture Type will come up at the top of the window. Make sure that the texture type reads Planar Image Map. If it doesn't, click on the up and down buttons until Planar Image Map appears in the window. The Texture Image window will appear immediately beneath it. Click on the up arrow until the name of your RGB frame appears in the window. The texture is now loaded and ready to be applied to the canvas

Finally, click on the "Z" Axis button beneath the Texture Image window, then click on Automatic Sizing. Ignore the requester that appears; just click on the OK button. Click on the Use Texture button at the bottom of the screen and then click on the Render button. Click on OK when the requester comes up and your RGB frame will be rendered onto your canvas. If you wish, you can click on the Smoothing feature in the Texture screen to provide more resolution in the final output.

After your object is rendered with the image texture-mapped upon it, all you have to do is tap the Esc key to return to the Layout screen and then exit to the Switcher screen where you will find it loaded into one of the DV buffers on both the Preview and the Program busses. From there you simply save it as a framestore. It is then ready to be used as a key frame over live video using the black luminance keyer.

Congratulations! See how easy that was!

## **TOASTER 3.1 & 4.0 TUTORIAL**

Toaster 3.1 makes keying a canted frame with a graphic texture-mapped over it so easy you'll find yourself using this process over and over.

Begin by entering LightWave 3D where you'll first be confronted with the Layout Screen. Unlike Toaster 2.0, the Backdrop color is 0-black by default, so you don't have to go through the process of changing it. In the Layout screen mode, you'll find all your needed function sources in a neat row of buttons across the top of the screen. Click on the Objects button and an Objects requester will appear. Click on the Load Object button. On the next requester which appears, move the slider down to the Tutorial directory. Select it and then choose the "Window.obj" from within that directory and click on the OK button.

Your object will be loaded into the Layout screen and a "WARNING" panel will appear in the middle of the screen which reads:

"Can't find "NDO:Framestore/001.FS.VT4000.aa." Select an alternate image?"

Do not be alarmed! This is the Toaster's way of making life easier for you! Click on the "Yes" button and immediately your Images drawer will appear as a requester screen. Now, merely select the IFF Image you want to texture map in the window and click the OK button and it will be done automatically. This saves you the trouble of opening the Images drawer separately, loading an image and then going to the Surfaces drawer to texture-map it in the window!

After you have clicked on the OK button, click on the Continue bar at the bottom of the Objects window and you will see your window frame in the Layout screen. Now click on the Object button in the Edit panel to the left of the screen. You will see your window now highlighted on the Layout screen. This means it is selected. In the View Menu, make sure you have the Camera button selected and then click on the Rotate button in the Mouse panel. Then place your mouse arrow on the window frame in the Layout screen and depress and hold down the left mouse button. Move the mouse around and your window frame will rotate into a canted position. Experiment. Choose a position you like and then release the left mouse button. Now go to the bottom panel and click on the Create Key button. A requester will appear. Type in a "0" and then click on the All Items button and click OK. This locks the camera, light and object together in a scene.

All you have to do now is click on the Render button--the bottom left button on the screen--and then click on the OK button on the requester panel which appears. Your window frame will render in the canted position with your selected image texture-mapped upon it. Now simply tap the Esc key to return to the Layout screen and click on the Switcher button near the top of the control panel and you will be returned to the Switcher where your work will be displayed in both the Preview and Main busses. From there, simply save your work as a framestore and it will now be ready to be keyed over live video by using the black luminance keyer in the Superimpose Panel. Very,

very cool, indeed!

## How the Toaster makes things easier for you

Here's a tip for the future. Let's say when you originally loaded your window frame the "Warning" requester did not appear. Or, let's say you wanted to load a new image into the window so you would have two window frames, each with a different image. In both cases you would begin by opening the Images drawer by clicking on the Images button at the top of the Layout screen. In the middle of the control panel which appears you will see a small screen replica in black and white of the image which is currently loaded into the window frame. To change it, simply click on the Replace image button. A requester panel will appear with your Images file. Just select the new image and click on the OK button and the new image will replace the old one.

Then click on the Continue button and you'll be returned to the Layout screen with your new image in your window frame. Believe me, whomever figured this out at NewTek saved you hours of work in the long run!

## ***BOTH TOASTER 2.0 AND 3.1 & 4.0 USERS CONTINUE HERE***

Although you have learned here how to produce a specific graphic for post-production work, what you have really learned is the rudiments of a procedure that will serve you well in the future. Now you can texture-map any RGB image onto any surface of any object. All you need to do is make sure that you select the proper surface plane of the object you have loaded. Refer to your Toaster manual for more details.

Congratulations! Now you're into LightWave 3D!

## ***CREATING REAL FLYING LOGOS***

What's the difference between a plain flying logo and a real flying logo? Plain flying logos are produced with the Toaster's switcher by bringing in a keyed logo with one of the Switcher moves. Real flying logos are created in LightWave 3D and then flown in by manipulating the elements in the Layout screen and plotting the moves and

turns in the wireframe mode. This will give your flying logos beautiful moves and turns when the completed animation is rendered and played from the Switcher or recorded to tape.

In this example, you'll learn how to produce a flying text logo, but the same steps can be used to animate any other type of object you may wish to use as a logo. After all, as far as the Toaster is concerned, letters are just another set of objects.

## **The 15-minute, \$500 Flying Logo!**

These tutorials are worth the price of the whole book! You can literally create beautiful flying logos in 15-minutes and charge you clients at least \$500 for the finished product. As a matter of fact, I recently got \$1,000 for one--but the process involved a lot of cleaning up of the logo in Pixel3D and LightWave 3D.

## ***TOASTER 2.0 TUTORIAL***

Begin this project by choosing a type style and importing all the letters you need from the Fonts directory of the Objects drawer. My logo consists of the following four separate lines of text: "the," "Burt," "Wilson," and "Company."

Load the letters you will need for your logo (Use these for this tutorial if you want to) from the fonts directory in the Objects panel into the Layout screen. It's best to load one line at a time because you are going to "Parent" all succeeding letters in a line to the first letter in the line. This fuses them all together so they will move as a unit.

## **Parenting your text**

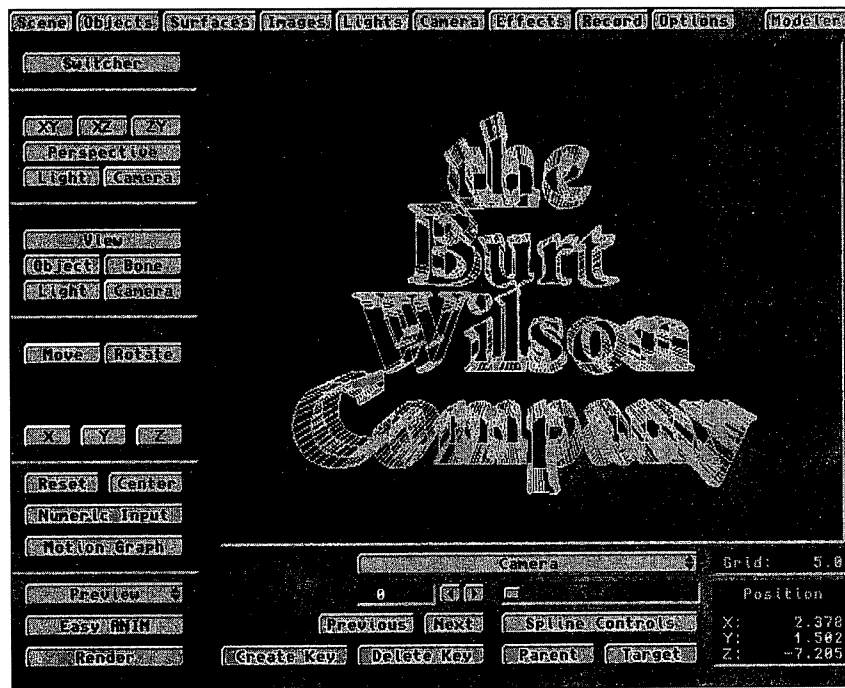
To parent one letter to another, first select the letter which you want to be the offspring for the first letter of the line. In this example, the letter "h" will be the offspring of the letter "t" in the word "the." Select the letter "h" by using the up and down arrows to bring it up in the "Selected Item" panel just below the Layout Screen. Now click on the "Set Parent" button at the bottom of the screen. This will bring up a requester panel with up and down arrows to the right. Use these to bring up the letter you want to parent the "h" to, the letter "t" in this case. Click the OK button on the requester panel.

You may see the letter "h" jump over in front of the letter "t" in the layout screen. This is a natural occurrence. It means it's ready for parent-

ing. Click and depress the left mouse button on the "h" and move the "h" over next to the "t" where you want it. Release the mouse button and then bring up the letter "t" in the "Selected Item" control panel. The "t" will be highlighted. If you place the arrow on the "t" and hold down the left mouse button, you will find that you can drag the "t" around the screen and that the "h" goes everywhere with the "t." You've just learned how to parent!

Repeat this procedure for all the letters in each of the four remaining lines (have fun! It takes a little getting used to). You should end up with a four-line logo that looks something like this:

the  
Burt  
Wilson  
Company



**This is the way your Layout Screen should look when you have finished entering text, extruding it and stacking the lines of text. Create a key of "0" to keep everything in place. Also, create a key of "90" for this frame as this is how you want your fly-in to end up after 3 seconds.**

## Setting up your anim motion

Now we are going to set up simple motion paths to make each line fly in by a different path, tumbling over as it comes, settling into place in the distance, and then zooming forward to fill the screen and stop. Don't worry, it's not as difficult as it sounds. The best way to accomplish this fly-in procedure is to program it in wireframe mode on the Layout screen backwards. First select the "Camera" view in the "View Mode" panel, the "Object" button in the "View" panel, and the "Move" Button in the Mouse Panel. Finally, select the lead letter--the "t," in the first line. Now place your arrow over the selected letter and, while

holding down the left mouse button, move the line until it fills the top fourth of the screen in the position where you want it to end up. Repeat these steps for each line until you have your complete four-line logo lined up exactly how you want it.

When all four lines are in position, click on the "Create Key" button. This will call up a requester in which you will input the number 90--that's the number of frames over which this move will occur--and then click on the All Items button.

Finally, click on the OK button.

You have now locked in the final frame of your move for all four lines of your logo. Next, go to the Mouse panel at the left and depress the Zoom mode button. Return to the Layout screen and, selecting each line by its first letter as you did before, move each line backwards (deeper) into the Layout screen until you have re-assembled your logo to perhaps a four-inch square rectangle in the

center of your screen. To make sure it's aligned perfectly, click on the ZY button in the View Mode panel and tap the right cursor arrow. This will allow you to view your logo from the side so that you can perfect your alignment. Create another key frame for all the items using the number 60. Click on the All Items button before you click on OK. This is where your logo will end up two seconds, or two-thirds, of the way through the move.

Now comes the fun part. Click on the Rotate button in the Mouse panel, bring up the "t" in the Selected Item panel and then place your mouse arrow over the "t." Hold down the left mouse but-



ton and drag the mouse backwards. Observe how your word rotates. Do this until the word has made one complete rotation. Go to the Mouse panel and click on the Move button. Hold your mouse arrow over the "t" again, but this time drag the mouse backwards until the word just disappears at the top of the layout screen. Finally, click on the Create Key button and enter the number "1." Click on the Selected items and all descendants button before you select the OK button.

Repeat this process for the other three lines of text, but move the second line off the screen to the left, the third line off the screen to the right, and the last line off the screen to the bottom. Remember to Create a new Key at "1" for each line once it is in position.

## **Reviewing a wireframe rendering of your work**

Want to see how it looks in wireframe? First click on the Make Preview button and watch the screen. Every frame, from 1 to 90, will be rendered in wireframe mode as you watch. When it has finished rendering, click on the Play Preview button and a requester will come up with arrows and frame speeds. Click on the 30-frames-per-second button and then click on the Play Preview button. Your animated logo will tumble in from off screen and set itself up in the distance over a 2-second period, then it will zoom forward until it fills the screen in the final second.

Congratulations, you've just completed a real flying logo!

Most people will want it to fly in over a black background, so you have to open the Backdrop screen and click on the Zenith Color button. A requester with RGB sliders will then pop up. Move each slider as far as you can to the left, to the 0 position and click on OK. The requester will disappear. Now click on the Zenith Color Only button just to the left of the Zenith Color button and your background will now be a 0 black. Of course, you can make your background any color or gradient.

## **Rendering your work**

You will now have to render your animation (use the Record Screen to do that) and then save it. Unfortunately, Toaster 2.0 has no facility to play your animation in real time, so you will have to

record it off to tape using a Single Frame Controller and an edit deck with a single-frame recording function. A very good alternative to a SFC is the PAR--the Personal Animation Recorder--from DPS. This has really become the industry standard for recording and playing back Toaster animations. You may also use DCTV together with the "Adam" program to view your animation in real time. This is not suggested for use as a precise way to record your animations to tape, but it will work if you're not too particular about quality, real time accuracy and resolution. You may also use REND 24 to view your animation in black and white in real time. AdPro's FRED module will also allow you to do a black and white real time viewing, but in a very small screen size

Hey! You've created a flying logo just the way the pros do it. Nice work!

## **TOASTER 3.1 & 4.0 TUTORIAL**

Toaster 3.1 makes flying or tumbling in a text logo so easy it ought to be against the law! Oh yeah, you'll go through a lot of clicking and dragging in this tutorial, but stick with it. It's really easy and you can use the techniques you learn here to make as much as \$500 or more a project. Got your interest? Then here we go!

The first thing we're going to do is create four lines of 3D text which we'll stack on top of each other and eventually tumble in through different routes for a real flying logo. I'm going to use the flying logo I created for my own company for this tutorial. You can follow along with it or create your own four-line text logo. I created my four text lines to look like this:

**the  
Burt  
Wilson  
Company**

I use this style, complete with the small "t" in "the," because it stacks nicely in a pyramid shape--which is my logo design. So now we are going to enter Lightwave by clicking on the "3D" button in the Quick Access panel. Have no fear! When the Layout screen comes up, click once on the Modeler button--the shaded one in the upper right corner. In a few seconds the Layout screen will wipe off to the left, revealing the four quadrants of

the Modeler screen. Don't panic. This is going to be easy!

To the left of the Modeler screen you'll see a long column of buttons. Click on the Text button, which is next-to-last at the bottom. This will open up a Generate Text requester panel which you will use to generate text. Click on the Load button and you will bring up the Toaster CG Fonts library. The thing is: you can choose just about any of these fonts and import them into Lightwave's Modeler and extrude them into 3D objects--even beveling the edges!

## Selecting your typeface

I like a good bold type with a nice serif to it, so I'm going to choose "Gowdie Italian" for this tutorial. Click on Load and then select the ToasterFont library section with the "G's" in it. Then drag the slider down the list of fonts until you come upon Gowdie Italian. Select it and click on the OK button and you are now ready to enter it as text.

Type in the word "the" and tap the Return key. You will see your word appear in three different views in three different quadrants.

### ATTENTION LIGHTWAVE 3.5 USERS!

Make sure you have installed the Modeler 3.5 update patch or else you will get an error message that will say: INTERNAL BUFFER TOO SMALL.

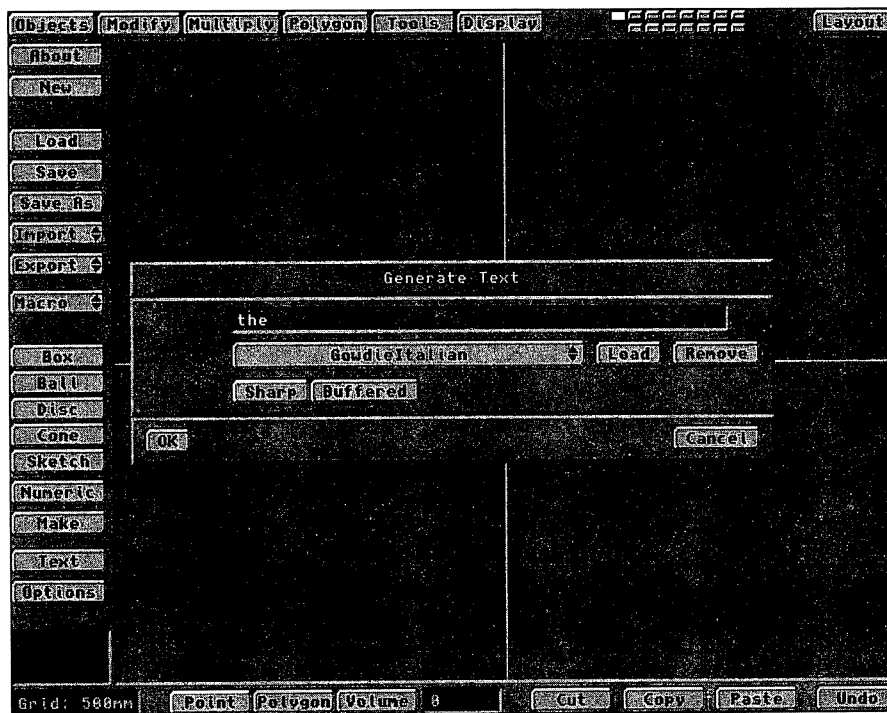
We're going to be mostly concerned with the lower left quadrant--the one which shows the "X" axis. Do you see the word "the" there? If it is somewhat off the screen, tap the "a" key once. That should give you a good view of it.

## Extruding your text

Now we're going to extrude this word into a 3D object. This is really simple. You first click on the Multiply button--the third from the left on the

top row. This will bring up a new column of buttons to the left of the screen. Click on the Extrude button--the second one down from the top. Your mouse arrow will turn into a horizontal red arrow with brackets on either side of it. Place this arrow just to the left of the word "the" and click the R I G H T mouse button. Your text will be extruded into a 3D object automatically. The extrusion

may be too much (you be the judge. I happen to like it wide) so if you want to cut the extrusion down, click on the Modify button and then activate the Stretch mode in the panel to the left. Your cursor will change again. Place the cursor on the background row of points visible in the "XZ" quadrant--the top, left one on the screen and, holding down the left mouse button, drag the mouse down. Watch your extrusion decrease on the screen and release the mouse when it's where you want it.



This is the Modeler Screen where, to the left, you will find the TEXT Button which you use to enter text. Almost all the Toaster Fonts are available to you. Just click on the LOAD Button and the Toaster Font requester will pop up. The, choose a font exactly the way you would in the CG. After clicking on the OK Button, the selected font is ready to be generated into text. Simply type in the line of text you need.

Now, click on the Objects button at the top of the screen and then look to the far right. Between the Display and the Layout buttons is a double row of smaller buttons with the top button on the left highlighted.

These are the layer buttons. Each button to the right of the one highlighted is a separate and independent

Modeler screen in which you can work without disturbing what you have done in a previous layer. So now, click on the next layer button to the right. You will see your extruded text disappear and the Modeler screen become empty. Now move down the column of buttons on the left to the Text button and click on it again. When the Generate Text panel comes up, clear out the previous letters with the Del Key and enter the word "Burt" and tap the Return key. Your text will appear in the screens as before.

Now go through the same motions to extrude and re-size your text for "Burt" and the words "Wilson" and "Company," each time moving to the next layer to the right by clicking the left mouse button on it.

## Saving your work

Next we are going to save each word as an object. We are now on the fourth layer with the word "Company" on the screen, so we click on the Objects button again, but this time we will click on the "Save as" button in the panel to the left of the screen. This will bring up your Lightwave 3D Objects drawer. At the File requester, type in the

word "Company" and tap the Return key. It's now saved as an object. Finally, repeat this process with every word in every layer until you've saved all four lines of text as 3D objects. Now you can exit the Modeler screen by clicking on the Layout button and you will be returned to the Layout screen. This is the screen where all the fun is!



**To extrude your text, click on the Multiply Button in the Modeler Screen and place the cursor just to the left of the "t" in the lower-right quadrant of the screen. Simply right-click to the left of the "t" and the extrusion will occur. If the extrusion is too deep for your tastes, go to the Modify Screen and use the Stretch tool as indicated in the accompanying tutorial.**

## Loading and positioning your text objects

Click on the Objects button--the second from the left at the top--and the Objects panel will appear. Click on the Load Object button to bring up your Objects file drawer. Locate the word "the," and double-click on it to enter it in the Layout Screen. Next, do the same thing with the other three words. When you are finished, click on the Continue button and you will see all four of your words as different sized boxes in your Layout

screen--all occupying the same space! Of course, this will just not do, so now we're going to stack them in the fashion of our logo design and lock them into place.

To properly stack the four lines of text, go up to the top left of the Layout screen to the View panel and click on "ZY" button. This will give you a side view of your four lines of text and they will appear as a single box. Don't worry, they're all there! What we are going to do now is move them one on top of the other. To do that we first click on the Object button in the Edit panel. Now look at the Selected Item panel right below the Layout screen. Click and hold the left mouse button on the arrows in the panel and you will see the names

of your four lines of text there. Select the word "Wilson" and then go over to the Mouse panel and click on the Move button if it is not already highlighted. Next, move the mouse arrow over the highlighted square in the Layout screen and, clicking and holding the left mouse button down, move the yellow square up and set it right on top of the square below it.

Next, go to the Selected Item panel again and select the word "Burt" and move it right on top of the box you just moved. Finally, select the word "the" and move it on top of the other three. The box at the bottom which you ignored will be the word "Company." While we're in this view we might as well position our camera between the four stacked lines of text, so click on the Camera button in the Edit panel and, holding the left mouse down with the arrow over the camera in the screen, move it up until the thin line protruding from the box is pointing between the second and third boxes. Now click on the Camera button in the View panel and wait a few seconds. Your stacked logo will appear in position of the Layout screen. See how easy it is!

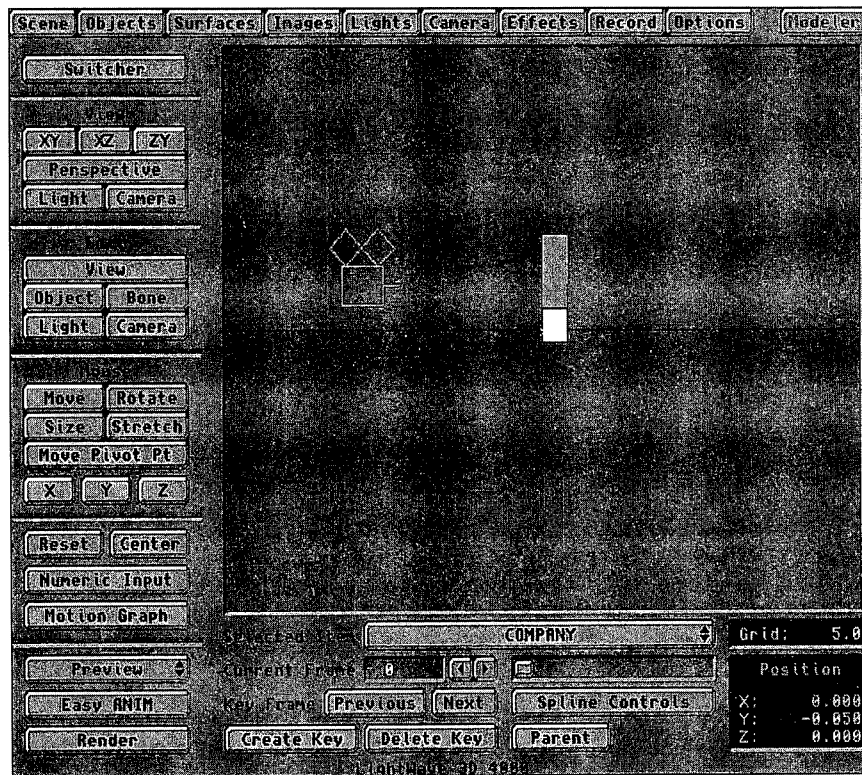
Now we have to do our final positioning. Click on the Camera button in the Edit panel and the Move button in the Mouse panel and, holding down the left mouse button with the arrow in the Layout screen, move the camera around until your logo stack is square in the middle of the screen, set in nicely from all four edges. You may want to move

your text into a pyramid design, so you would select Object in the Edit Panel and Move in the Mouse Panel. Then highlight each word in succession in the Selected Item panel and, while holding down the left mouse button with the arrow inside the Layout screen, move your text box around to where you want it centered. Do that procedure for each individual text box.

When you're finished, click on the Create Key button at the bottom of the Layout screen and enter a "0" and click on All Items in the panel which comes up. Then click on OK.

Next, we're going to give each line of text a nice gold surface so it'll dazzle the clients. Gold looks snazzy and says you're a first class company. This is really easy to do. You click on the Surfaces button at the top of the screen and then click on the Load Surface button in the panel which comes up. This brings up the Surfaces drawer. Look down the list of surfaces until you find "Gold" and then click on it and tap the Return key. You only have to do this once.

It will apply a gold surface to everything in the scene! Want to see what it looks like? Click on the Continue button and then click on the Render button at the bottom left of the Layout Screen, enter "0" in the next requester and click on OK. This will render your logo. Look's rich, eh?



**This view is obtainable by clicking on the "ZY" Button--the third from the left in the VIEW Panel. By highlighting each object (which is a word) you can click on it and move it up into position, stacking all the objects in a perfect line. By highlighting the camera, you can also move it into position with the horizontal line (representing the lens) pointing directly between the second and third lines of text--right in the middle. The tutorial will only work correctly if the camera lens is in this position.**

## Checking the lighting

Now, it could be that you couldn't see your logo or perhaps you only rendered a dim outline of it. Not to worry. This means that your lighting is off. You will have to check your light and position it so it is shining on your logo from a direction which is pleasing to you. Tap Escape to return to the Layout Screen and click on the Light button in the Edit panel. You should see a highlighted box with what appears to be two "barn

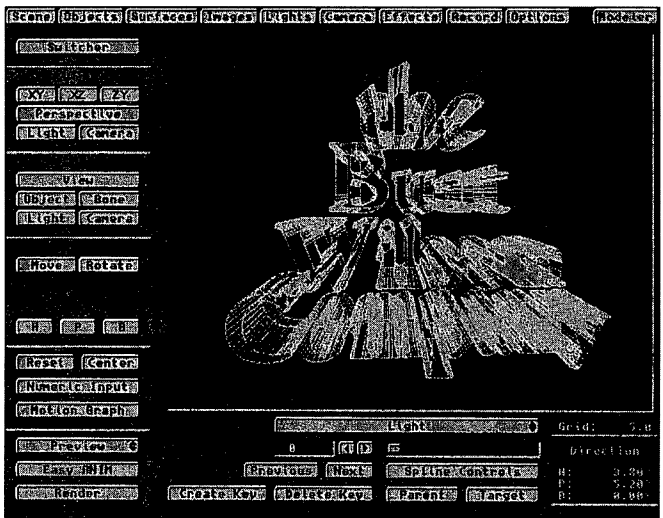


This shows the Layout Screen in the Camera View with the Light highlighted. You can use the Move and Rotate Buttons in the Edit Panel to place the light where you want it.

rendering your previous keyframe. Aargh! I will bet that you will do this at least once and then, hopefully, never do it again. I use a note pasted to my computer screen to remind me!

## Creating anim motion for your text objects

Now we're going to set up fly-in motions for our logo lines of text, both collectively and individually, so we can fly 'em in like the pros do.



This is the view of the four lines of text as a whole as seen through the lens of the light. It's achieved by clicking on the LIGHT Buttons in the View and Edit Panels

doors" (actually used on lights to control light spill-over) which indicate which way the light is shining. Click on the Light button in the View panel and you will see exactly where your light is falling. If you can't see your light in the Layout screen, click on the "ZY" button again and you will probably find it. Now, using the Move and the Rotate functions in the Mouse panel, you can position your light where you want it. Even if it is in front of the camera, the light itself will not register in your final animation. Just the beam.

When your light is where you want it, be sure to create another keyframe for all your items. I can't dwell too much on how important it is to keep creating keyframes whenever you move something to a new position in the Layout screen. And, if you're an Astrology fan, be especially careful when Mercury is in retrograde! If you don't create a new keyframe, you'll go to render the work you just did and find that you're

We'll set up a three-second sequence--that's 90 frames--and we'll do it in reverse because that's the easiest way to go. So, from the Layout Screen, with your stacked logo neatly positioned full screen, click on the Create Key button at the bottom of the Layout screen and create a keyframe for this scene at "90." This means that this is how your animation is going to end--with your logo full screen.

Now click on the Camera button in the Edit Panel and, clicking and holding down the left mouse button with the arrow in the Layout screen, drag the mouse backwards. You will see your stacked logo design get smaller as it moves to the rear of the screen. When it is in a position where it is about four-inches square in the middle of the screen, create a keyframe there at "60." Now comes the fun part! Click on the Object button in the Edit panel and select the word "the" in the Selected Item panel. Now click on the Rotate but-



ton in the Mouse panel and, just the way you did before--clicking and holding down the left mouse button with the arrow in the Layout screen--rotate the word "the" one full rotation. Do it right where it is. Don't worry if it ends up not looking like a part of the logo. Now click on the Move button in the Mouse panel and drag the word "the" towards the front of the Layout screen until it disappears just over the top edge. Now select the word

"Burt" and rotate it once and move it off to the left of the screen until it's just out of sight. Next, select the word "Wilson" and rotate it once and move it off to the right of the screen. And finally, select the word "Company Company" and rotate it once and drag it towards the bottom of the screen until it just disappears. Now create

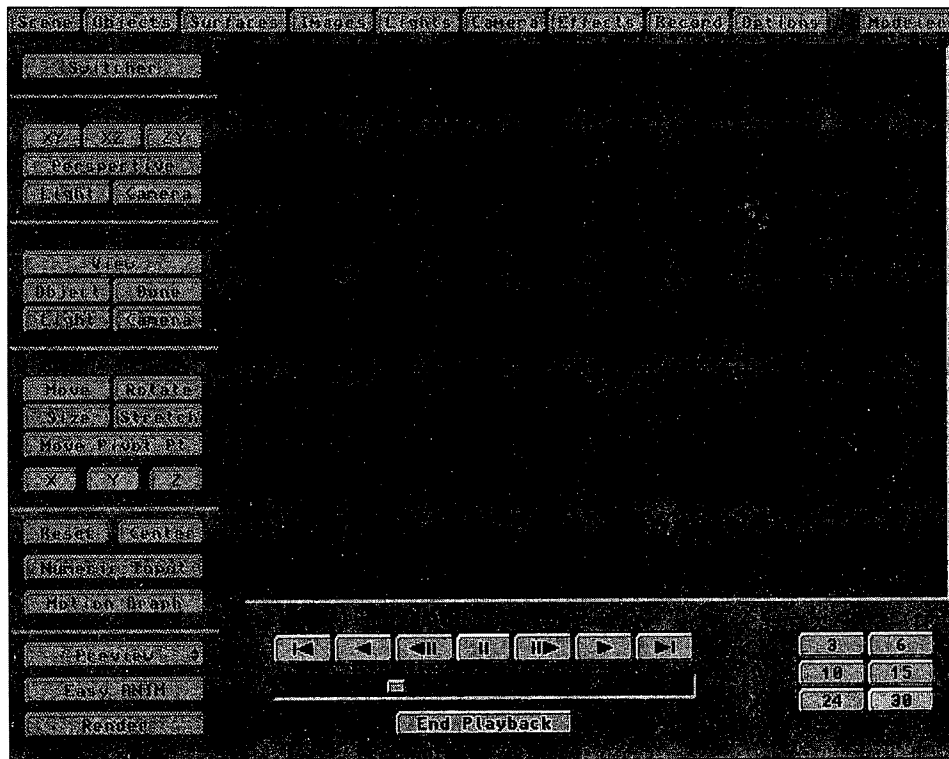
a keyframe for all items at "1." See how easy it is to create motion!

By the way, the reason the top and bottom lines of text went neatly over and under the screen was because the camera was aimed at the exact middle of the four words. Had the camera been aimed anywhere else, the effect would not have worked.

## Making a wireframe preview of your work

Now it's time to make a wireframe preview of your work. Just click on the Preview button, in the column on the left, and it will bring up the Make

Preview control panel. Enter "1" for the first frame and "90" for the last frame, be sure "Wireframe" is selected and click on OK. The Toaster will now create a wireframe preview of the moves you just made with your logo. It shouldn't take too long. You can sit and watch it. The number of the frame which is being rendered is shown in the bottom right corner of the Layout screen. When all 90 frames have been rendered in



**This is a section of the Wireframe Preview which represents the four sections of text tumbling in just before landing together in the distance. Your Wireframe Preview will show you exactly how your animation will look after it is rendered.**

wireframe mode, the Play Preview panel will appear underneath the Layout screen. Click on the Play one button to the far right, the one with a "1" and a VCR-type "forward" indicator on it. Watch your logo tumble in from four different directions, settle down in the distance and then move forward to the front of

the screen! Too cool!

Don't be alarmed if the middle words seem to expand and contract on the move from the rear to the front of the screen. Personally, I like that touch. It looks more real. If you don't like it, you can edit the motion path, but I'll leave you to learn that on your own.

## Rendering your work as an Easy Anim--VT 4000 OWNERS ONLY!

And now (drum roll!), just click on the End Playback button and you are ready to render your flying logo as an Easy Anim--if you have the

Toaster 4000 with 18 MB of RAM. To me, this feature alone is worth the whole price of the Toaster. Having this much RAM will allow me to do up to six seconds (180 frames) of real time animation and play it right from the switcher without single-framing it off to tape or onto a PAR! Hey, it's worth it. Six seconds is plenty of time to fly in a logo in a video or a commercial.

From the Layout Screen, select Render. Be sure your Render requester is set to render from frame 1 to 90 and on Automatic Frame Advance. Then click on the Easy Anim button, second up from the bottom on the left. This will call up an empty filename from your Framestore file. The Toaster will have an unused number loaded by default followed by ".FS.ANIM"--as if you were saving a Framestore. You may change the anim name, but be sure to leave the ".FS." in there. Now click on OK and your logo animation will render frame-by-frame. This will take some time. You might want to go brew up a cup of coffee (I prefer New Orleans's Cafe de Monde with chicory) while you're waiting. When the rendering is finished, exit to the Switcher and call up the framestore number of your animation, load it, and tap the Auto button. What a great experience it is to see your first flying logo come tumbling in! Best of all, you didn't have to go through hours and hours of Lightwave 3D instruction to do it!

One final word: you can change the background of your flying logo from black to any color or gradient color you want, or even put in a framestore. Just go to the Backdrop panel on the Layout screen and click on the necessary buttons in the panel. It's easy! A real no-brainer! Also, you might be disappointed when your 120-frame fly-in only goes to, say, 110 frames and stops. You will wonder what you did wrong. Well, you didn't do anything wrong, you just ran out of hard drive space. Try eliminating some framestores or CG books--anything to give you more hard drive space. Then try the fly-in again and it will work perfectly.

Warning! If your animation stops before it plays all the way through, you don't have enough memory. Try eliminating some Framestores or whatever you do to free up some more memory.

## **CREATING ODD-SHAPED FLYING LOGOS**

This is not going to be a complete tutorial as

you will be using such additional programs as ADPro2 and Pixel3D Professional and I recommend you read those manuals thoroughly. So I'm only going to lay out the process here and leave the details up to you. However, you should be able to follow this process and create an odd-shaped flying logo easily.

By odd-shaped, I mean anything that isn't text--from a circle to a trapezoid to a winged bird or any other image. The process involves rendering the logo outline into a two-color image--the logo white and the surrounding background black--and then extruding the single-color white logo shape into a 3D object, attaching the original image to it. You end up with a 3D object of your logo which you can then fly-in anyway you want, with or without a corporate name accompanying it.

### **Capturing the image of your logo**

Begin by capturing an image of the odd-shaped logo. This is usually done by plugging a camera into your Toaster's TBC, focusing it on the logo and then creating a Freeze frame of it. Save it and go into ToasterPaint and clean it up, i.e., remove any stray colors or pixels around it. You want to end up with just the logo on a solid 0-black background. Save it as an RGB file so there will be no degradation.

If you have a scanner, you can also scan it in.

### **Working your image in ADPro2**

Now exit the Toaster (if you have enough RAM you can multi-task by double-tapping the Ctrl key and the Alt key in quick succession) and open ADPro2. Set your Load and Save buttons to "IFF" (This is the same as RGB). Click on the Load button and your RGB file will appear.

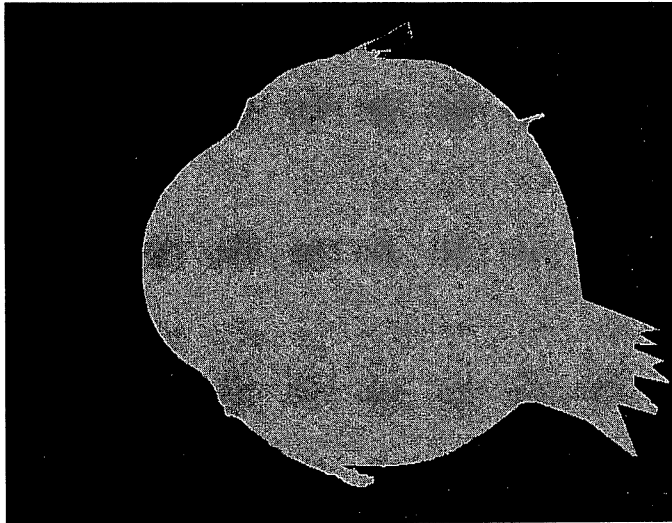
Find the name of your file and enter it in the requester and tap the Return key. Your color logo will be loaded as a 24-bit image. Now click on the COLORS button at the bottom right of the ADPro2 main menu. A panel will come up and you should select the number "4"--which means you're going to reduce your 24-bit, full-color image to four colors. Why not 2? Because sometimes there are colors within your logo which blend with colors outside the logo and the result is that the definite outline of your logo can be lost. Making a four-color reduction will prevent that from happening.

Next, you click on the Accept & Execute button and ADPro2 will turn your logo into a

four-color image and display it. Click the left mouse button and you'll bring up a "save" requester. You're going to save it into DPaint4. You should have previously created drawers in DPaint4 for "hi-res," and "lo-res" images. Save this four-color image into the "lo-res" drawer and then exit ADPro2 and open up DPaint4.

## Working your image in DPaint4

In DPaint4, load the four-color image from the



**This is a 2-color image which has been manipulated in AdPro2 and then cleaned up in DPaint4.**

"lo-res" drawer and, using whatever brushes you need, turn the four-color image into a two-color image and clean up the edges and any stray pixels. It's important that all stray pixels be eliminated because they will render as points and polygons in the next operation. One of the easiest ways to convert from a four-color to a two-color image is to use the "Fill" tool using the black and white colors to fill in the other two stray colors.

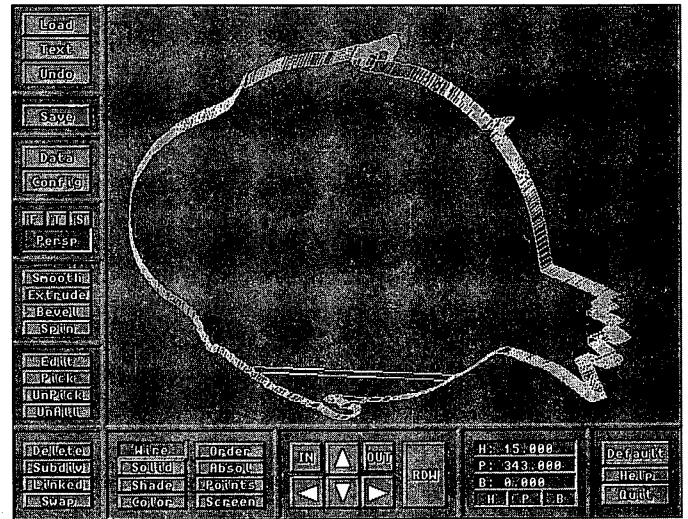
When you are finished, save your two-color image in the same "lo-res" drawer and exit DPaint4 and open up Pixel3D Professional.

## Extruding your image in Pixel3D Professional

When the main menu in Pixel3D Professional comes up, click on the Load button. A requester panel will appear in which you will type the name of the hard drive division followed by

"/DPaint4/lo-res" and, in the file requester, type the name of your image. You can also do this by clicking on the Volume button at the bottom of the panel and then double-clicking on the hard drive, etc. Typing it in is faster. When you are finished, click on the Accept button and your two-color image will load.

When it's finished loading, you will see an outline of your image on the screen. You can now clean it up by moving and de-selecting points.



**This is the image after it has been imported into Pixel3DPro and extruded. It will now be exported into Lightwave3D as an object in the Objects Drawer.**

Read the manual to learn how to do this. The main thing we want to do here is extrude this odd-shaped image into a 3D object. To do that, click on the Extrude button. A requester panel will appear. To the right of the Extrude Value button are up and down arrow buttons. Click on the up arrow button until it reads 30 or 35 (this is only for this tutorial. If you want more extrusion, make the number higher; less, make it a lower number). Then go down to the color buttons and leave the Front Color white. Click on the "Set" buttons for the side and back colors and, using the RGB sliders, make them red and blue (any two colors will do). Now click on the OK button and your two-color image will be extruded into a 3D object. You can manipulate it on screen to see the amount of the extrusion by clicking on the arrows at the bottom of the screen. To the left of the arrows is a panel where you can switch your 3D image from wireframe to solid to points and even into color.

Next, click on the Save button and you will see a panel with the names of all kinds of image processing formats. Right at the top is LightWave 3D--where it should be! Click on this button. Your image will appear in a requester file with a ".lwob" after it, indicating it is a "LightWave object." Now bring up your Objects drawer in the requester panel and click on OK and you will save your image right into LightWave, in the Objects drawer.

## Attaching your logo image to your 3D object

Now exit Pixel 3D Professional and boot your Toaster and go into Lightwave, click on the Objects button at the top of the Layout screen, click on the Load Object button, find your image, click on OK and it will be loaded into the Layout screen. Next, click on the Images button and load your original image (cleaned up with a solid 0-black background). You will see your original image appear in black and white on the small screen in the middle of the panel.

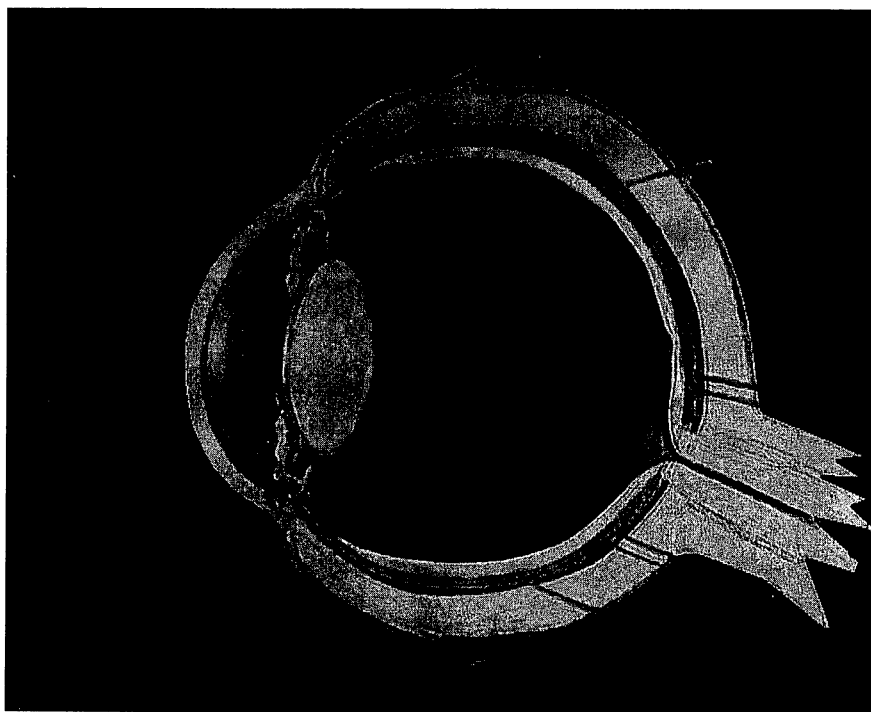
Then click on Contine and then open the Surfaces panel. At the top of the panel is the Current Surface requester. Click and hold on the arrows and select the "red" surface. This is the side of your object. Now click on the Load Surface button. The Surfaces file will appear. Select BrushedMetal and click on OK. Repeat this process for the "blue" surface. Next, select the "white" surface. This is the front of your 3D object. Now click on the small button with a "T"

on it just to the right of the numbers which are to the right of the Surface Color indicator. This will bring up the Texture Mapping panel. For "Texture type," make sure you have "Planer Image Map" selected. Underneath that, click and hold on the arrows of the "Texture Image" requester and select the name of your logo which will appear there. Next, click on the "Z" axis button and the Automatic Sizing button. A warning will appear. Ignore it and click on the Use Texture button,

click on the Continue button and then render your object. Your logo image will be attached to the surface of your 3D object, but it will probably not be the correct size. This is because the Toaster maps the whole frame--including all of the 0-black background--onto the face of your object. To get it to fit, you have to click on the World Coordinates button, the Texture Size panel and the "X" and "Y" numbers in the Texture Center

panel and manipulate the "X" and "Y" numbers. This can be exasperating, but it has to be done. With experience, you can get it down to about five or six re-sizings. When you're finished, save your surface, but be sure that the World Coordinates button has been deselected! If it has not, your surface will not be attached to your object! Great job! Now you have an odd-shaped logo you can now save and then fly in to your liking--adding other 3D objects or 3D text to suit your needs!

OK, now you can compete with the best of them in flying-in text and logos and, best of all, you can start right away making money at it!



**This is the completed image attached to the extruded 3D object of the same size. And you thought it was going to be a fish, eh? It's a cutaway of an eye!**

# CHAPTER XI

## PROFESSIONAL POST PRODUCTION TECHNIQUES

**W**hen you sit down to use the Video Toaster's Switcher, CG, and special effects to produce your video or commercial, you're using equipment, hardware, and software that meets or exceeds all the standards for television broadcasting. When the Toaster was first introduced, many broadcast professionals were skeptical of the machine. They just couldn't believe that such a low cost production device could possibly meet their high standards. Today, just a few years later, you can see trademark Toaster moves all over broadcast TV. And I don't mean just Cable!

The television broadcasting industry has finally accepted the Toaster as a high-quality tool. Proof: even the producers of Star Trek: Voyager, SeaQuest DSV and Babylon 5 are using the Toaster. Only a machine that can truly produce would be able to win such acceptance, and *produce* is just what the Toaster does. And yes, this is the same Toaster that's sitting there in your own editing studio.

Using the Toaster to edit is a lot of fun. But there are a few techniques you need to know to make everything go smoothly. Some of these may seem rudimentary, but it's better for you to review them here and make sure you know them all than to let you get halfway through a project only to discover you've made a major Boo-boo!

### **Make a habit of using these techniques**

First and foremost: Get used to blacking and

time code striping the tape you're going to use for an edit master. The edit master is the tape you will be editing to on your record deck. Blacking it simply means laying down black over the entire tape. Blacking will also stripe the tape with time code (if you're using a time code generator) and control track code. This will allow you to do your editing in insert mode, which is what all professionals do. You should never edit in assemble mode because that lays down new time code with each edit and it makes going back and doing a re-edit a nightmare. And believe me, you will be going back and doing re-edits! You should also have at least 30-seconds of color bars at the beginning of your edited master and a 1Khz audio tone recorded at 0 dB along with those bars.

These last two elements are necessary because the engineer at the TV station who will be setting up your tape for playback will adjust the color levels using your bars and adjust the audio playback levels using the tone you laid down. This is your assurance that the tape will play back over the air with the exact same color and audio level in which you edited it.

I use the Toaster to black my tape and put in color bars all at the same time. Let's say I'm going to be editing on a 30-minute master tape. I put the tape in my edit deck and set it to assemble mode. This means that it will now record video and both audio channels concurrently. I boot my Toaster, load color bars into the Main buffer, and click on the #4 Program buffer. Since nothing is fed into this buffer, it outputs a nice black for my tape. I

then activate the dissolve icon and set the speed to slow.

Many people I know use the DV3 Bus with the background color set at black as their blacking image. I see nothing wrong with that, only I like a real deep black--as close to 0-black as I can get--and the #4 Program Buffer delivers that.

With all this done, I push the Play and Record buttons on my edit deck, so that it starts recording bars from the beginning. After 30-seconds, I tap the Spacebar and my Toaster performs a slow dissolve to black. Now I go off and have a 29-minute and 30-second cup of coffee while the Toaster blacks the remainder of the tape.

The next thing you want to do is slate your tape, i.e. put in a framestore that tells the engineer what's on this tape and the full running time. This is always good to do because after setting the color and audio levels, the engineer will fast-forward the tape to the beginning of the commercial or the program. But first he will see the slate. If his programming chart says the "Sleighride 60-second commercial" is supposed to go on and the slate of the tape he's setting up says the tape is the "jet-ski 30-second commercial," he knows he's got the wrong tape--even though the box it came in may have been clearly labeled the "Sleighride 60-second commercial." Such problems happen more often than you may think. The slate is one way to prevent them from becoming bigger problems.

The slate should have the following information on it:

1. The client name.
2. The name of the commercial, e.g., "Save

money now," or "Plowing fields #2;"--whatever best describes that particular commercial or distinguishes it from others in a series.

3. The length of the commercial or video.
4. The date the commercial was produced: This distinguishes it from a later re-edit or an update of the same commercial.
5. The name of your production company.
6. Your phone number.

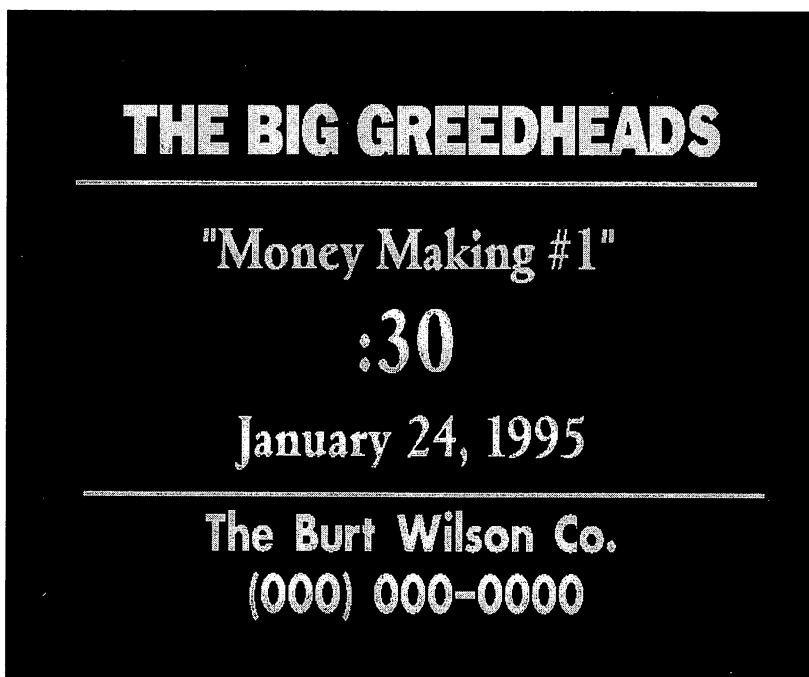
The last two items are optional, but being a responsible person, I want to know right away if there is something wrong with my tape when it gets to the station. If there is, they can call me if they can't reach the ad agency or media service

who placed it. By the way, don't forget to put your edit deck back in "Insert" mode before you start editing.

**Be sure to always use quality tape stock**

One important item that sometimes escapes the attention of video editors is to always use the best tape you can for your edit master. If you use a lower quality tape as your edit master

you will find that it will tend to stretch after you do repeated edits on the same area of the tape. If you just once re-edit a scene over and over and then find that your original master tape has stretched, you'll know what I mean. Trust me on this. You don't want to lose all your hard work



**This is how a slate should look. Feel free to make up your own version, but be sure to have all the necessary information in it. Not slating a project is unprofessional, so just make slating a part of your normal work process.**



right down the drain. I always use the very highest quality tape--I prefer Sony XBR broadcast-quality tape, for my edit master. Please! Use only high-quality tape!

Another thing concerning tape. When you are out shooting on location, be sure to remove the little red button (or tab) from the underside of your tape after you have completed recording footage on it. Do this immediately after you change tape. This button is the record button. You can only record on the tape when this red button is in place. With the button removed, the tape absolutely cannot be recorded on. Removing the button guarantees that you won't inadvertently record over the tape later, as I alluded to earlier in this chapter. Other tape formats, such as Hi8 and S-VHS, have similar protection devices.

Another good habit you should get into is to remove the red button (or tab) from your edit master immediately after you complete editing your project. There are countless people in the world who have had to learn these lessons the hard way by having to go out and re-shoot footage or re-edit masters.

## **Tape labelling procedures**

Always pre-label your tapes before your shoot. Give them a title and a number and there will be no mistake when it comes to deciding which tape you need for each scene. Label both the box and the tape. Always check the number of the tape when you remove it from the box to edit from it. Tapes often get stuck in the wrong boxes. And, like socks in a dryer, they frequently end up getting lost or misplaced with no rhyme or reason as to how it happened.

It's also important to know the difference between original footage, an edited master, and a master. The first of the three tapes is obvious: the footage you shot out on location or wherever. The edited master is the tape you edited to. The master is a dub of the edited master. The master dub is usually made using your edit deck's dub mode because it produces the best quality: it's a straight across mirror of your original. It is the master--not the edit master--that you should give to your client or to the TV station. The master is, however, another generation down from the edit master and there are times--especially in Cable TV--where you will want to keep the master and deliver the edited master to the station.

I do this all the time for the commercials I

produce for cable TV. Why? Take a good look at your local cable system sometime and see how washed-out many of the locally-produced commercials are. This happens because most cable systems send the masters they receive to a central facility where they are dubbed off onto other reels. These reels are then sent to yet another facility where they are inserted into local programming cut-ins of the national cable feed. That's a lot of generation loss. By the time your commercial is played on the air, all the color will be washed out of it. Take a good look at a few of those commercials and you'll see what I mean.

This is also where you will see the color deficiencies of an S-VHS or a Hi8 format show up. The color simply does not hold together through a series of dubbings with the consequent generation loss.

I keep my master and give the station my edited master and the result is that I have the best looking, most colorful cable commercials on the air! This is another reason why it pays to shoot and edit in 3/4-inch or a higher format.

## **Dealing with anxious clients**

One of the things you will have to learn to deal with is a client in your editing suite, watching you do your stuff. As you can well imagine, this is a situation that is best avoided. That is because the same business traits which made your clients a success also turn them into very difficult clients. That trait is control. They are used to having control. And here they are in a situation where they don't know what's happening and they feel very insecure because they don't know how to control it.

You have to adjust your personality in order to give them the appearance of control, but keep creative control yourself, reminding yourself that this is in the best interests of your client. This is difficult, but it can be done. Above all, do not try to wrest control from your client by means of ultimatums and showdowns. Don't get involved in an ego fight. You will lose a client and possibly more business. Learn to be diplomatic. Make a game of it. Lighten up. Don't take it all as an affront to your creativity. Tell yourself that this is the way people are and you're best off learning to deal with it. You will. You will even smile when these situations arise in the future. And be sure that they will.

If you can't avoid having your client in your editing suite, at least explain to him or her what pre-roll is. Do it as soon as they sit down in your suite. Clients just freak out when your edit decks go into pre-roll. They see all these things happening on all these monitors, with tape going backwards, forwards, supers flying in and all this good stuff, and they just can't handle it. Show them the program monitor and tell him to watch that monitor *only* and to ignore all the rest. They won't, of course, but you might get lucky.

You should also tell your client when you are laying down an edit and when you are reviewing an edit. This will save you a lot of time. When clients see how tapes are edited together, it doesn't take long for them to get bored. They're not part of the process and they don't understand the technology you're using and it gets to them. After about two hours, you'll catch them looking at their watches and you'll know that they'll be leaving soon. They'll say something like, "Just call me when it's done and I can see it all at once." Now you can relax and really get your work done because you've won.

I will probably get into a lot of trouble by saying this, but a little knowledge in a client's hands is a double-edged sword. Some learn and can really help out in the future once they feel secure in what's going on. Others tend to think they're moguls right away and will cause you nothing but grief. But these are personality problems we all have to deal with and if you don't like people and don't like dealing with such problems diplomatically, you should be in another business.

## **Don't let 'em pick your brains for free!**

This is really good advice. Sooner or later you're going to get a call from a person who says he is a prospective client and he'll start asking you questions about production.

You will feel flattered at first. "Oh boy, here's where I really get to shine," you'll think and you'll really lay it on heavy, imparting all the technological wizardry you have in your possession. At the end you'll hang up the phone thinking it's just a matter of days until this guy calls back and you get the job.

Later, you'll find that the job went to someone else. Why? There's a psychological thing happening here. People don't like to believe that

they are stupid about anything. Most really are stupid when it comes to knowing how to do video and what goes into it. If you help them, you become a constant reminder that they are stupid in this area. For this reason alone they will not come back to you. I guarantee it!

What they'll do is go to school on what you tell them and then call up some other production house and start talking the language you just taught 'em. What do they gain by this? *Control*. And, as we have already talked about it, control is the name of the game. So they're in and you're out.

The best way to avoid this is to be professional and ask for a consulting fee. Tell them you'll be glad to sit down with them and tell them everything you know, but at \$\_\_\_\_\_ (write in your own figure) an hour. If they say no way and hang up, don't despair. You have just saved yourself a lot of time and trouble.

You may have to bite the bullet the first few times you do this, but hang in there. Learning to do this is all part of learning to be a professional.

## **Everybody knows your business**

There is a very peculiar thing about the advertising business in general--and that includes video and TV production. You would never think of walking into NASA and telling their scientists how to put a rocket into space. But every NASA employee--indeed, everyone in the US--undoubtedly thinks they're an expert on advertising and TV and can therefore tell you what to do and how to do it! One of the most painful lines you'll ever hear is, "Hey, I'm looking at this thing we're doing here like an average Joe would--the same kind of guy who's going to be watching it!" You'll hear that until you're sick of it. The only thing worse is the guy who comes back after viewing the off-line and starts out with, "Now my wife thinks....!"

People just have this habit of thinking that because they watch TV, they're all experts on how to write commercials and on what sells. This is not an attitude that is going to go away. The whole name of the game, as I indicated earlier, is "control of the process" of the production. Somehow you have to diplomatically devise a method to keep it in your hands. Most clients can be reasoned with and, let's face it, if you don't know the answer to a client's question or can't

counter his "I-know-it-all" attitude, you deserve what you get.

There's no secret to this. Just learn your trade. Learn all you can about TV production and advertising in general. Be prepared to talk intelligently about any portion of the process and above all, be prepared so you can be professional at all times! Keep growing. Keep studying the species. Keep learning. Keep up to date on everything that's going on in advertising. Keep abreast of the latest video and commercial techniques. Hey, this is your business, so be businesslike!

### **Another good post production tip**

The best tip I can give you is to get a GPI trigger device. Eye-balling an edit or editing according to the audio track is do-able, but it's not the best way. With a GPI trigger, you can make your edits happen when you want them to happen the first time, every time. This will save you hours and hours of re-edit.

And let's face it, you've got enough to worry

about in the editing process without having to eyeball everything.

Another good suggestion for you would be to get into frame-accurate time code editing at your earliest opportunity. Time code is the be-all, end-all of editing. With your decks locked up in perfect frame-accurate sync, you can do anything, including match-frame editing if you have an A/B roll system. The expense is worth it if you are into serious editing.

The Video Flyer has its own time code system, so you don't have to worry about outside sync when you're doing non-linear editing. But if you're in linear, get into time code.

Also, try going to a post production house and sitting in on a couple of sessions. You might try going to a place that does not have a Toaster installed in their system. When you get back into your own editing suite or studio, you'll appreciate the Toaster--and all the different things it can do for you--that much more.

## **TOASTER POST TIP**

**The texture mapping procedure which you learned to do in the positionable effects tutorial comes in really handy if you want to do a set-piece in post production where you pop in quarter-screen images one-by-one.**

**For example, say you have a client who builds four kinds of fences--chain-link, pool enclosures, wooden and decorative wrought-iron--and he wants his commercial to emphasize this fact. Of course you could pop-on full-screen pictures of the four different kinds for two-seconds apiece and that would get the job done. But if you want to add greater visual impact to his message, it would be a better idea to pop-on each kind of fence in a different quarter of the screen as they are being read off in the copy--so the viewer can see them all at once.**

**To make this happen, you go into Toaster Paint and click the right mouse button on the top of the control panel and pull down the "Prefs" (for Preferences) menu and highlight "Coordinates" and then release the mouse. Now you can use the Coordinates feature to find the exact center of the screen. When you have done that, use your largest square brush tool and draw a red cross centered on the black screen. You have now effectively "quartered" your screen.**

**Now freeze an image of each of the four different kinds of fences from the live video you shot (or from pictures you were given). Next, according to how they are mentioned in the copy, you texture map one image in the upper-left quadrant and save it as a Framestore. Then you texture map the second image in the upper-right section of the screen and save this two-image screen as a frame store.**

**You repeat this process for the third and fourth images and in the end you will have four Framestores--one with one image, one with two images, one with three and the last with all four.**

**Now you can either cut them in or dissolve them in as they are mentioned in the copy. The effect is really eye-catching and effectively conveys to the viewer the fact that your client does a variety of fencing.**

# CHAPTER XII

## MARKETING YOUR POST PRODUCTION ABILITIES

**S**o, there you are with your Video Toaster and all this expensive editing equipment, and you're wondering "How am I ever going to make this stuff pay for itself?" Don't worry, you're not alone. I know you'll make it pay, but you do have some important decisions to make. You can make things a lot easier on yourself if you develop a solid business plan. I've always been big on setting goals for myself. If you set a goal, then you can act in a manner that is "goal fitting," i.e., you do only whatever is necessary to achieve your goal and you eliminate everything that does not contribute toward reaching that goal. This is a very simple process that works wonders in organizing your time. Anyone can do it. This simple premise is at the core of countless management seminars that cost \$500 and more, so take it to heart. Don't let yourself get side-tracked into doing things that don't contribute to achieving your goals. You do have to take time out once in a while to smell the flowers, however. Remember, you're a creator!

Your first decision should probably be to determine if you're going to specialize in producing Special Interest Videos (also known as industrial video), television commercials, or both. Your second decision will be to determine whether or not you want to make a living as a video producer. The first decision may well be determined by the type of video equipment you have at your disposal. The second decision will probably be made by your bank account. The good news is that no matter which decision you make, you can still keep your day gig and ease your way into making a living in this field.

What it takes to accomplish these goals is a

change in your habits. Habit is killing. Habit is the grease with which we cook our own goose. If you want to produce video, you have to break your habit of relaxing in the evening after your day gig. Instead, get into your editing suite and do video. I have always felt that the best rest is a change of labor, especially when you can totally lose yourself in your work. When you get into video and begin to learn all of the different techniques that are involved, you can really lose track of time. And that's always a good sign. I think you refresh your mind more by giving it a new task than by resting it.

Once you've made those two basic decisions, you have to market yourself and your editing capabilities. Note that I said to market "yourself." Any experienced salesperson will tell you that all selling is personal selling. People are buying you--or how you present yourself--as much as they are buying your skills. It won't hurt, therefore, to sharpen your personal skills and evaluate your own self-image.

### Marketing yourself

One of the first areas in which you should market yourself is among your network of friends. Ask your friends if you can shoot their weddings, their family histories, video greetings to friends, and so on. Start out doing these types of productions because you can't break into producing bigger projects unless you have a product that you can show to prospective clients. You have to have a demo reel. Doing little projects for friends will bring in a little money, but most importantly, it will give you the opportunity to demonstrate your skills and talent. You should make the most of these first projects. You should

spend even more time on them than you think they're really worth. Remember, your friends are doing you a big favor by giving you the chance to operate under commercial conditions. And they'll be forgiving of little mistakes.

When you produce your demo reel, make sure that it's not more than 10 minutes long. Make sure the demo introduces you and your work and that it demonstrates the best work that you are capable of. You may want to be creative about producing your demo reel by keeping it to a theme, e.g., giving it the look of an old-time movie or a "parade of hits," anything to avoid having a mundane series of commercials or unrelated snippets of other video productions. Put your name and telephone number at the end as if you expect the viewer to call you right away. In fact, ask them to call!

Never hand a prospective client a plain, black video tape without a label, shoved into a plain white cardboard sleeve. Do that and the first impression your prospective client will have of you is that of plain-wrap talent. Get access to a computer and a color printer and create a jacket insert that you can stick inside the plastic cover on the outside of the video case. Run off your demos at a dubbing house and have them stick side and front labels on each tape, box or sleeve. It doesn't hurt to shrink-wrap each one. This is not as expensive as you may think, and there's something really classy about giving a prospect a shrink-wrapped tape. Something that says, "this is just for you."

After you have mastered the art of editing, you might want to advertise your services as an editing suite. Take out an ad in your local "Pennysaver," "Recycler" or whatever publication in your area has a weekly listing of new and used goods and all types of services. Advertising will get the word out to people. Set your hourly rate at whatever you're comfortable with.

A lot depends upon your equipment. I charge \$60 an hour for my 3/4-inch Sony 5800/5850 system with a Video Toaster, including graphics and special effects. If you're editing Betacam, however, you should be in the \$75-\$100/hour range. If you are editing S-VHS you should be in the \$35-\$50/hour range. Ask around and determine what other producers in your area are charging for similar services. This is called market research. Do it. Remember, you're not operating in a vacuum.

## **The best way to break into the broadcasting business**

One of the best ways that you'll find for breaking into the broadcast business is to produce Public Access programs for your local Cable Station. Most Cable TV stations are required by their operating licenses to set aside a certain amount of access time to any member of the community with a 30-minute or 1-hour TV program. Some stations even provide a studio where you can have your program produced. It may be just talking heads, but it's TV!

The best thing you can do is to produce your own Public Access program. This would be Special Interest Video that you conceive, produce, direct and edit yourself. You may or may not want to bring in other people on the project. You can often produce such a program for a foundation and receive an "in kind" receipt for the amount of money you would normally have charged for your services. That receipt is as good as gold at tax time. It will reduce your tax obligation to Uncle Sam.

As an alternative, you may want to produce a program that's all your own. That's how writers get started. They write about something they know. This strategy works well for TV producers, too. Take a subject you know something about, produce an informational video about it, and give it to your local Cable Station to run on their Public Access channel. Suddenly, you've got a production on TV!

If your program is well produced and is in a format (such as 3/4-inch) that will hold up through the dubbing process, consider taking it to a video distribution company. They may be interested in distributing your tape in exchange for a percentage of the selling price.

I know this all sounds very simple. It is, if you have an interesting, well-produced, good quality video! Distributors are begging for good videos. There's a huge demand out there. Step in and try and fill part of it.

Another way to make money is by producing 30-second commercials for local clients that will appear on your local Cable TV station. Do your research by watching Cable programs and seeing who is advertising. Are their commercials good or bad? If they're good, try and find out who produced the commercial--that guy is your competition! If they're bad, you've just identified a potential client because you know you can do a

better job!

Cable TV is the best place to break into the business because local retail clients may be paying only \$5 to \$10 for a spot (compared to the hundreds or thousands of dollars a local network affiliate or even a local independent station may command). Rest assured, these advertisers aren't spending more than \$500 (in a small town) to have their 30-second commercials produced. Their expectations, therefore, won't be sky high either. Show them your flying logos, your Toaster effects--not to mention your low billing rates--and soon they'll be banging on your door with their checkbooks in hand.

Local Cable TV stations represent potential clients in and of themselves. Although most of these stations have their own production staffs, the station's sales people who sell the commercials don't always use them for their production work. If they don't use them, it's usually because the station's staff is usually already book up and it takes too long to get a commercial produced. The sales staff knows they need to get things turned around fast or they risk losing the advertiser's account. That's where you come in.

Call on the sales manager at your local Cable TV station and ask if you can come over and talk about producing for them. They'll say yes more often than not and they'll want to see your demo reel. Without a demo reel, you're dead in the water.

If you don't have a demo reel, make one up quickly. Visit the owners of a few local retail establishments. Don't pick restaurants as food is difficult for an inexperienced producer to handle. Volunteer to produce a free TV commercial for them. It's more than likely that they'll eagerly accept your offer. Hey, you're in business. If the commercial's good, don't you think they'll want to use it on Cable? Of course they will. If they do, ask them to compensate you for it (or they won't get the master).

You may also consider getting yourself a job on staff at the Cable station? Why not? If that's what you think you want to do, go for it. But first ask yourself why you got the Toaster in the first place. Didn't you buy it to be a part of the revolution and to do your own thing. Believe me, you're not going to be doing your own thing working for wages at a Cable TV station. But before you cross a Cable station staff job off your career list, it might not be a bad idea to work there

for a few months; just long enough to put a demo reel together! But you should never give up the dream of working for yourself. I can think of nothing worse in this world than 9-to-5-ing it for wages.

Still another way to gain experience is to take a TV course at your local community or city college. The problem with college courses, however, is that they tend to be very academic and are aimed at studio, rather than location production. It's worth checking out, nonetheless. Some Community Colleges are really doing great commercial video!

Once you're ready to start looking for business--after you've thought long and hard about the rates you're going to charge--you'll need to create a rate card for yourself. I suggest that if you are shooting video, you should publish a daily rate for yourself and your equipment, plus an hourly rate for editing time. If you list your rates for producing commercials, put down one amount for a half-day's shoot and a second rate for a full-day shoot. Beneath that, list your editing rate, your rate for creating wipes and transitions, your rate for producing graphics, and your rate for producing 3D animations.

By breaking things out in this fashion, you can negotiate up from a basic price. If you offer script writing and narration services, you should also list these rates, even if you sub-contract these particular services out to someone else. You also need to decide if you want to include audio production in the shoot budget, or if you want to break it out as a separate cost. And don't forget to publish an hourly overtime rate. If the client knows you charge for overtime, it will keep his demands in line on shoot day.

Remember, however, that you may find it necessary to negotiate these prices with your client. You may find it necessary to throw in a few effects for free in order to get the job. OK, so you throw in a few moves or a little voice-over narration, just be sure that you're still working for a rate that will give you a price you can live with. No big deal. You're working for yourself, so getting the job may be the main thing, especially if you're just starting out. Working for a little less money, at least at first, is nothing to be ashamed of.

You may charge your client \$25 per graphic, assuming it will take you 30 minutes to produce the page, but when you actually get into it, you



may find yourself spending an hour or more on the task just because you want to do it right. So what? You're having fun producing video, aren't you?

It used to be that everybody went by the rate card. No more. Rate cards today are merely a starting point for negotiations in the game of who's going to blink first. It's OK to let a job go if you're dealing with a "grinder" who just won't let up. You're probably better off not doing the job anyway. Grinders usually get theirs somewhere down the line--they'll usually take the lowest-priced producer and end up with an inferior commercial. Serves 'em right!

Now you have a demo tape, a rate card, and an appointment to see a prospective client. After checking out your demo reel, the client asks "Can you give me a ballpark figure of how much this commercial is going to cost?" An amateur producer will blurt out a price and hope the client will consider it acceptable. I usually respond to this question by saying "Well, somewhere between \$100 and \$50,000, what kind of ballpark do you want to play in?" To which the client, always taking the low road, responds "What do I get for \$100?" And I say, "\$100 will get your name on the screen for 30 seconds."

You can make up your own response to that question, as long as it's equally ridiculous as mine. I say that because asking for a ballpark figure is the most ridiculous question a client can ask. What the client is really trying to do with that kind of a tactic is to get a price from you first, so he can grind you down from it. Answer him with

"Anywhere from \$100 to \$50,000," and you've given him the ridiculous response he deserves. More importantly, you have wrested control of the negotiation from him, but you've done it with humor, so he can't get really teed off at you.

What you need to do is get your client to describe the kind of commercial he wants you to produce. All clients have some idea of what they want. As he describes his commercial, check your

rate card and add up the numbers. When he's finished describing his ideal commercial, hit him with a price a couple of thousand (hundred, maybe?) higher than you think you can do it for--a price that appears justified because you've been adding it up as he's been talking. If he's a grinder--and many of them are--he'll tell you that's too high. Respond by asking him, "Well, what were you expecting to pay for such a commercial?"

Now you've really got him. You both know he's going to name a lower

price. It may be a little lower, or it may be ridiculously lower, but it will be lower than your first price. That's just the nature of negotiating. If you find the price is acceptable, draw a few doodles on your pad--don't let him see what you're doing, though--and tell him, "Well, I think I can cut a few corners on my end and still give you a first-class production for \$\_\_\_\_," a price a little less than your first quote. There! You're done and you've won. You high-balled the price, he was afraid to go too much lower, and you got a

## TOASTER POST TIP

**When doing an edit you may notice at some time that the video may appear to freeze for just an instant--a frame--before it goes into the triggered effect. This occurs when you are doing digital effects over live video because the Toaster must convert the analog source feed on the Program bus to a digital source before it can perform a digital effect.**

**This is not a Toaster bug and the problem can easily be solved if you activate the digital source on the Program bus first, before you perform the effect. This converts the current program output to digital and eliminates the freeze effect.**

**To get a digital source on the Main bus you have to activate not only the input (usually #1) buffer but also Main framebuffers DV1 and DV2 simultaneously, i.e. all three have to be activated together on the Main bus.**

**This is one of the most important things to remember during the post production process on the Toaster, so it makes good sense to do a few experiments with it before you begin editing.**

price you can live with. If he quotes a ridiculously low price, make the same doodles and then tell him, "There's no way I can give you a first-class, quality job for that kind of money. But I can cut a few corners and come down to \$\_\_\_\_\_ dollars," quoting the price you had expected to get in the first place. What's important now is that you don't retreat from that price.

In both these scenarios, you've taken control of the negotiation and gotten the price you want, not the price he or she wants. Practice this a few times with friends before you go out on a call and be familiar with all the side roads negotiations can take. Follow this basic scenario and you'll always be in control and you'll always get your price.

Negotiations will be a little different if you're producing special interest videos; they'll be more exact. It's funny, but as I was writing this part of the book, I received a call from a woman in San Francisco who asked me for a ballpark figure to produce a half-hour cooking show. You get a feel for these things after awhile and my instincts told me that she was looking for something in the neighborhood of a few thousand dollars--which would be ridiculous. So I told her she could figure on \$1,000 a finished minute (an average cost to produce a run-of-the-mill show). She said "thank you" and hung up. In this case, I qualified her right away and didn't waste my time or her.

It is almost an axiom of the video production business today that nobody--NOBODY!--knows the cost of doing video. You have to be prepared for that. You have to be prepared to say "no" to people who think that all you do is point a camera at something and turn it on. But there are people out there who know what video costs and they will want you to bid on their project, so be prepared for that, too. The important thing to remember is that you should never bid on a large project without first seeing a script! Nevertheless, you will be asked to bid on all kinds of projects without seeing a script. I guarantee you that if you bid on a large project without seeing a script, you'll end up losing money.

## How to analyze a script

You need to see a script because you need to count the number of set-ups you'll need to make. Set-ups describe the number of times you'll have to move your camera position. Figure it will take an hour for you to move the lights and everything else for each move. Then count the number of edits you'll need to make when it comes to post production. Allow at least 10 minutes for each edit. Remember that a voice-over scene counts as two edits. Then count the number of graphics, the number of lower screen supers, and the number of Toaster moves. Assign each of these the requisite period of time to produce.

The most important determination you have to make is how many days it will take to shoot the project. Post-production is relatively cut and dried, but shooting is not. You can expect all manner of delays.

Use overtime instead of another shoot day if you're working on a tight budget. If you think the shoot will take three days, budget it for two, but include four hours overtime for each day. This is a good strategy because you don't have to pay overtime for any equipment you may be renting. Equipment rents by the day, so while you may be paying personnel overtime, you don't have to pay overtime on the equipment. If you shoot on overtime, you can finish a job in two days that would have otherwise taken three.

These hints will get you started. I want to leave you with three rules that should be emblazoned on every commercial video production company owner's brain. If they are, and if you live by them and are persistent about reaching your personal business goal, you will be successful. Break any one of them consistently and I guarantee you will end up in the video production graveyard. The three rules are:

- 1. Never work without a contract.**
- 2. Never give out a ballpark figure.**
- 3. Never bid on a video project without seeing a script.**

# CHAPTER XIII

## TOASTER 4.0 AND THE VIDEO FLYER

**W**hile the changes made to ToasterPaint and the Toaster CG in the Toaster 4.0 upgrade are significant, they have only a minimal effect on the tutorials you have learned in this book. Remember, we're talking mostly principles here and if you have to change a few moves for the benefit of the upgrade, it's a very small thing.

If you are doing video production on cuts-only systems, the Flyer represents a significant advantage. The Flyer will actually replace the need for an A/B roll system. That means you can save the money you'd spend on a third deck and new edit control system and buy a better camera instead.

Remember, however, The Flyer is an expensive addition. You're going to have to come up with an added \$12-15,000 to fully integrate the Flyer into your Toaster system because you'll need to also buy a CD-ROM drive, several gigabytes of hard drive space and an additional dedicated hard drive for all audio not recorded on video tape--voice-overs and music, for example.

You will also probably have to get a digital tape drive of some kind so you can save your projects digitally. What I'm saying here is that you should know all the facts and figures before you decide to get a Flyer and, as much as I want one, too, I would be remiss in not pointing this out to you.

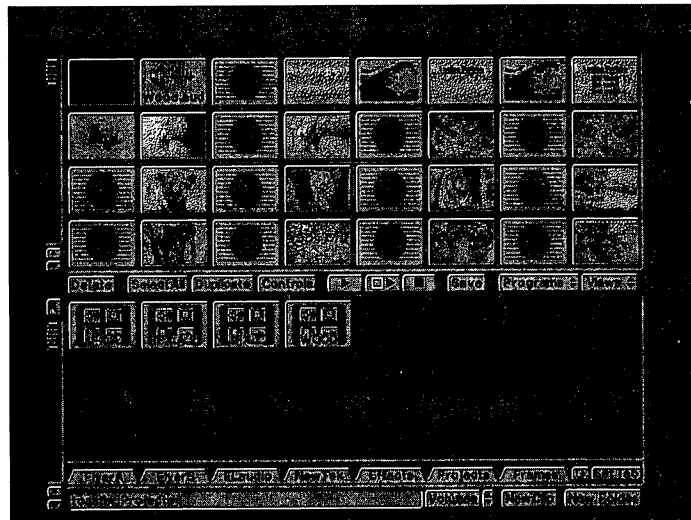
### Working with the Video Flyer

The most important factor to remember about the Flyer is that it will do everything the Toaster does. That also means that it will not, with a couple of important exceptions, do what the Toaster can't do. The most important major exception, of course, is that it can do A/B roll dissolves. The other major exception is that you can use the Flyer to work around some things the Toaster can't do.

For example, if you have a Toaster in a cuts-only edit system, you cannot fade-in live source video simultaneously with text supered or keyed over it. The best you can do is cut in a key after the fade-in of the source video by having it ready to go and then clicking on the DV bus it's in on the Superimpose Panel after the fade in is complete. Or--good grief--you can wait for the Preview Buffer to load in your super after you've completed the source video fade-in--a wait which is in no way a substitute for bringing the two up together.

The Flyer cannot do this either, but it can do a work-around because the Flyer is able to record straight from the Toaster output. This is an extremely valuable tool for post production. For you linear post people this means that the Flyer is able to build its own B-roll.

For example, if you want to fade in a source



**This is the Toaster Flyer 4.0 Project Screen. Non-linear editing is performed by shifting croutons into position here. Notice that the croutons are miniature pictures of frames. You can also identify a video clip with a picture.**

scene along with a super--or perhaps along with a graphic of some kind--the thing is it involves having two buffers activated at the same time while you also want to do an effect, something which the Toaster and Flyer cannot do.

If you plan ahead, however, you can work around this. When you shoot your source video, plan to record a few seconds more at the beginning of the scene where you want to fade-in with a super. This is something you would normally do anyway.

Then, in post, feed this source video clip into Toaster Input #1 and take that signal from the Toaster output and input it into the Flyer. As you feed the clip in, have the super already keyed up. Fade your super out where you normally would according to your script.

What you have, then, is the scene recorded in the Flyer with the super burned into it from the beginning. Now all you have to do is use this segment as your source video clip when you post your project in the Flyer and you can fade-in the super or graphic with the scene as a single unit. Neato. Veddy cool. This principle also has other applications which will occur to you as you are editing.

Another thing: when you look at the Flyer's record modes, you'll find both Standard Play and Extended Play, simulating what we are all used to in our home VCR's. Sooner or later you will ask yourself, "Can I input my video into the Flyer in Extended Play and output it in Standard Play?" Not if you want to preserve the highest quality. Extended Play was created for "long form" Video Flyer users who's productions last longer than 30 minutes. The quality is not the same as Standard Play.

## THE TOASTER 4.0 UPGRADE

If you get the new Toaster 4.0 upgrade without the Flyer, you will still be working on

the Flyer interface. This is what Toaster 4.0 is all about. The only difference is that you will not have any croutons representing video clips to place around in your project.

All the Toaster Effects--and they've included just about every effect from every Toaster edition, from 1.0 to 4.0 plus a magnificent array of new ones--will be there, but you will now have to access them from the Project Screen.

The place where the effects used to be, at the top half of the Switcher Screen, has been taken by a new Project Screen which will be your daily work/playground. Everything you do will be based upon opening a project and then clicking and dragging various croutons into it--Framestores, CG Pages and Toaster Effects you plan to use.

The biggest change the new

interface presents is that you will now be working more visually than before. You will be able to see your project take shape as you click on and move the croutons into the project screen--black and white croutons for Toaster Effects and color croutons for CG pages and Framestores.

It causes you to think differently about what you're doing and this is very good because it will help you unlock a lot of creativity. You'll find it's easier to be creative just because it's more visual.

In 4.0 you will no longer have CG and Framestore requesters on the Switcher Screen. You will access the CG, Framestores, ToasterPaint and the Setup Screen from the Main Project/Switcher Screen--and then put your elements into your project screen as croutons.

Now you will have all the elements of the project you're going to use in one place--Framestores, supers, CG pages and effects. They don't even have to be in order on the



**This is the Toaster 4.0 CG where you'll be able to manipulate text in a variety of new ways. It also shows the graphic "safe" area.**

project screen as you will just grab what you need and use it. Because every crouton is a miniture picture of the element, you can post a project quickly and easily.

The point is, even without a Flyer, this is similar to non-linear editing. You just take what you need from your project screen as you need it. You can even set up a pretty snazzy slide presentation using just framestores, CG Pages, and Toaster Effects, with everything posted out in real time to tape.

It's impossible to write how easy the Toaster 4.0

upgrade is going to make post production for you. You have to experience it yourself, so do get out to a Toaster dealer and watch one in action if you haven't done so already. This project-based editing feature alone is worth the price of the upgrade.

## TOASTER 4.0 CG

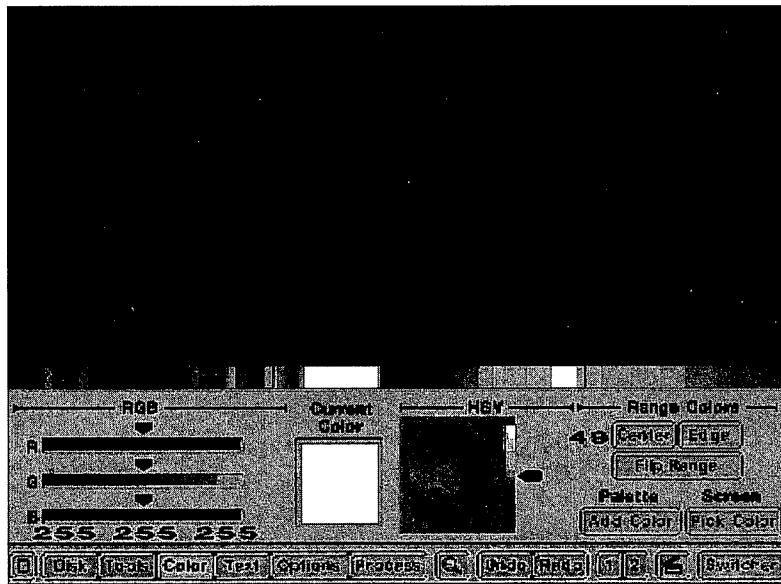
The new Toaster CG looks exactly the same. In fact, you have to search around to find what's new. It does have a couple of new buttons in the Fonts section. After entering the Fonts control panel by clicking on the Cntl's button, you'll see a button that reads "+PS BRUSH." This brings up a new CG feature which allows you to rotate and shear text.

You can type in either single letters, a word or even whole lines of the text you want into a requester panel. When you're finished, all you need do is click and move a slider to the degree of rotation and/or shear you want. Your text is then rendered out as a graphic brush on the CG screen. You see it on the screen as a graphic box, the same way you would see it

had you accessed a brush.

Whether you rotate and shear your text or not, you can re-size that graphic box any way you want to on the CG screen--the same way you re-size a plain old box in the Toaster 3.1 CG. This will be a great boon to graphic artists.

The only other button besides the "+PS BRUSH" Button which is new is the Save Page Button. This saves whatever page you may be working on as a crouton, so you can use it with the Flyer or bring it onto your project screen as a CG Page.



**This is the new ToasterPaint Palette control panel. Note the new color wheel for choosing colors and also the RGB sliders for more precise color selection.**

## THE NEW 4.0 TOASTER PAINT

The new ToasterPaint 4.0 upgrade is the one we've all been waiting for. Critics have always felt that ToasterPaint was the weakest part of the Toaster. I have not always agreed with them, however, because TP has always come through for me.

You will be happy to know that TP is still basically the same and it will be a real no-brainer to master and operate. The biggest improvement is reserved for Toaster 4000 users who will now be able to operate in full color on the full screen instead of just a quarter-screen. This is in addition to the other graphic advantages--the AGA chip, for example--of owning a Toaster 4000.

Toaster 2000 and 3000 owners will also be able to operate on a full screen, but only in 16 colors--or you can still work in the old quarter-screen HAM mode.

The whole interface has been re-done and there are now separate Palette, Options, Tools, Text and Processing panels which appear at the bottom of the screen for easy access.

Another improvement is the addition of an airbrush. This is long overdue and will make working in TP just that much broader. All really good paint programs have an airbrush.

Font support in TP is another fine improvement. It supports all the Toaster Fonts and, as in the CG, you can rotate and skew almost any font or line of text. All you have to do is click on an arrow and hold down the left mouse button and move the mouse to set the degree of shear or rotation and then click on the Create Brush button to make it happen.

One more feature that is a real improvement is the color selector, which is now round, making it easier to get the color you want. You also have true RGB sliders to select colors, replacing the rather clumsy manner of holding down the left mouse button while you roam around the palette.

All the old modes are still there and work the same way. The Transparency and Warping interface has also been changed, but it still works the same way. This too has been made more professional.

## WHAT THE NEAR FUTURE PORTENDS

What does the introduction of the Video Flyer mean to the future of the post production process? Will we become a tapeless society? Well, the Flyer and other systems like it will change everything eventually, but that might take some time.

I do predict that you will soon have a video camera with a read/write CD-ROM disk on it instead of a recording tape deck. You will use this CD-ROM camera to acquire your video and then simply feed it into the Flyer for editing, the finished project going out to either analog or digital tape or CD-ROM for whichever format is required for the particular media it's destined for--with minimal generational loss from the original! This is already in the works.

The future really lies with digital. Everything will be digital soon except the final format. But let's face it, all the cable systems in the US are not going to dump their 3/4" formats overnight just to accommodate a digital revolution. Neither will Betacam die easily. Since the Toaster is a composite system--even with the Flyer--and Betacam is a component system, i.e., the luminance and the

chrominance signals are separated, Betacam will continue to provide its users with more control over the quality of the final picture output. So owners of Betacam SP A/B roll systems will probably think twice before they integrate a Flyer into the mix. On the other hand, a Toaster Flyer version with a component Betacam output is probably not far off.

Tape will exist for some time, but its time is limited. In the future you'll deliver projects on read/write CD's to everyone--networks, cable operators and duplicators alike. Duplicators are already mastering on CD.

And as I write this, the Library of Congress is lamenting the decomposition of their older video tapes. This will not happen with digital. The future is definitely digital and NewTek will help bring it closer, but it will not happen overnight.

Another good thing. NewTek has opened up the Toaster/Flyer operating system to a hoard of third-party hardware and software providers. This means that about a year from now you'll think that the computer industry has become Toys R Us. You'll be besieged by ads for all kinds of third-party peripherals designed to make your Toaster/Flyer do a more efficient job.

This is all well and good, but, again, don't buy something just because it's there--unless you can afford to. Go to Expos, user groups, computer houses, electronics houses--anywhere you have to in order to find out what the product really does and whether it is essential to your operation.

After all, the concept of being a professional is best achieved by being a professional!

## HAPPY POSTING!

### *Flyer Postscript:*

As of this writing, NewTek is shipping Flyer update 4.02 which includes a very important update called The Cutting Room. This feature allows you to digitize a long clip for source video and then cut it up into shorter segments. You can also overlap clips and create smaller pieces to use in posting your project. Basically, it means more creativity for you.



# APPENDIX A

## VIDEO PRODUCTION AGREEMENT\*

This agreement is entered into this \_\_\_ day of \_\_\_\_\_, 19\_\_\_, by \_\_\_\_\_, hereinafter referred to as the SELLER, and \_\_\_\_\_, hereinafter referred to as the BUYER.

1. It is agreed that the Seller will make \_\_ (how many?) \_\_ videos (Commercials) for Buyer at a total cost of \$ \_\_\_\_\_. Seller warrants that it possesses sufficient crew, equipment and technical expertise to produce the videos (commercials) in a professional manner.
2. Any production overtime after 10 hrs. per day will be charged the Buyer at the rate of \$ \_\_\_\_\_/hr. Seller will make every effort to release other staff early to minimize personnel due overtime. Talent overtime will be billed at \$ \_\_\_\_\_/hr.
3. Seller will tape the day(s) of \_\_\_\_\_. An off-line (if applicable) edit will be shown Buyer on \_\_\_\_\_. The completed project will be delivered by \_\_\_\_\_.
4. Payment schedule:
  - a. \$ \_\_ (1/2) \_\_ before \_\_\_ (the shoot date) \_\_\_\_\_.
  - b. \$ \_\_ (1/2) \_\_ upon delivery of the completed production.
  - c. Any overtime payment will be made within 10 days of the completion of the shoot.
5. This agreement includes all reasonable costs and the delivery of One (1) \_\_\_ edited master and \_\_\_\_\_ ( ) submasters and \_\_\_\_\_ ( ) VHS dubs.
6. Buyer and Seller agree to lend full cooperation in the coordination of the entire project.
7. The Seller guarantees to execute this agreement in a professional manner throughout in the best standards of video production methods. It is further agreed that any changes made by the Buyer after the final shooting script is shot will be charged to the Buyer at a (to be) negotiated price.
8. The Seller shall not be responsible for any editing changes requested by the Buyer after the completion of the final on-line is completed. Any additional changes requested by the Buyer will incur additional editing charges.
9. Contingencies: Neither party shall be responsible for any failure to perform due to any causes beyond their control. Examples of such causes are acts of God, war, riot, embargoes, action of civil or military authority, or fire. In the event any such contingencies affecting Seller's performance last more than ten (10) days, the Buyer may terminate this agreement.
10. Any amendments to this agreement must be made in writing and be initialed by both parties.
11. Seller reserves the right to retain a copy of the production for display purposes or as an exhibit and from which to make additional copies that may be requested by Buyer from time to time. Seller expressly agrees not to use said copy of the production or any still pictures made therefrom for any commercial purposes.

12. Except in event of gross negligence by Seller, Buyer will indemnify and hold Seller harmless from loss, damage or injury to property supplied by Buyer or injury to employees of Buyer provided as talent, helpers or workers, arising out of or incident to performances of services under this agreement.

13. Throughout the performance of this agreement, both parties shall act at all times as independent contractors and nothing contained in this agreement shall be construed or implied to create the relationship of principal and agent or of partners or of employer and employees between the parties. At no time shall either party make any commitments or incur any charges or expenses for, or in the name of, the other party without the written consent of such other party.

14. This agreement shall be governed by and construed in accordance with the laws of the State of \_\_\_\_\_.

Approved and accepted by:

Seller's name  
address  
city & state  
phone

Buyer's name  
address  
city & state  
phone

By: \_\_\_\_\_ (Seller) \_\_\_\_\_ By: \_\_\_\_\_ (Buyer) \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

PRINTED NAME: \_\_\_\_\_ PRINTED NAME: \_\_\_\_\_

DATE: \_\_\_\_\_ DATE: \_\_\_\_\_

**\* WARNING!**

Neither my company or myself will be responsible for the use or mis-use of this sample agreement. You use it or any part of it at your own risk.

**\* NOTES:**

The word "agreement" is a much less threatening word than the word "contract" so use it when dealing with a client.

All of these paragraphs can be altered to your specifications to meet your own needs.

Be sure and give your client time to read the agreement before signing it. Most will want to take it with them and give it to you the next day or later.

An example of releasing staff early is if you are doing voice-overs at the end of the shoot and you do not need the lighting people any longer. Let them pack up and go early and you've saved some money.

It's always better to work on a half-down, half due upon completion basis than getting your money in thirds, the way some people do. Doing a 1/3. 1/3. 1/3 agreement just adds a fictitious factor to the process and works more for the benefit of the client than it does for you.

Remember, never work without a signed agreement!

# GLOSSARY

**A/B ROLL EDITING**--This is when you have two source decks (A and B) synced to your system so you can dissolve between each of them. This allows you to dissolve from moving video to moving video, something you cannot do on a cuts-only system. (See "CUTS-ONLY.")

**ADO**--Short for Ampex Digital Optics. This special effects machine is a staple in every big post production house and is the machine which the Video Toaster has taken the place of in home systems. The ADO, however, has the ability to compress video without it pixelizing as the Video Toaster does, but hey, they cost hundreds of thousands of dollars!

**ALPHA CHANNEL**--This is the Toaster channel which allows you to produce images such as boxes or bars plus text, borders and drop shadows in three different levels of transparency. You will find the channel control under the RGB sliders in the color control panel. Beneath the Alpha control slider button are outlined four different areas. Placing the slider in these areas will give you, from left to right, 0%, which is completely opaque, 33%, 66% and 100% which is full transparency. Regardless of where you place the slider in each area, you are only going to get a single level of transparency in that area. It is best to experiment with this valuable tool and check it out to see how you can use it to its best advantage.

**ASSEMBLY EDITING**--The basic nature of assembly editing is that you are laying down new control track code with every new edit point. You are also laying down new sound and video. This mode is used mostly in the off-lining process where you take a bunch of scenes and cut them together in a string so you can have an idea of what your project will look like before you on-line it. The drawback of assembly editing is that at the end of each edit all video and time code is wiped out for a couple of seconds. The thing is, if you want to do some insert editing and you accidentally do it in assembly mode, you will have big trouble because you will have to re-edit every scene from that point on to where you were. I have a basic rule: use assembly mode only for blacking and striping a tape. Always edit in insert mode.

**AUDIO RECORDING**-- Use Channel 2 to record narration in the field because that channel is furthest from the edge of the video tape. Channel 1 is right on the edge, so it can be easily damaged if the tape is damaged. For that same reason, always store your video tapes in an upright position, as opposed to laying them on their side. This will prevent inadvertent damage of your Channel 1 audio track. A note for S-VHS users: Hi-Fi audio can also be recorded on a special track called AFM--Channel 1 and Channel 2. Linear audio is also recordable on Ch1 & 2, but it is of inferior quality. Hi-8 camcorder users may also benefit from AFM Hi-Fi, if available.

**B-STOCK**--This is the term given to video equipment which has been used as demo equipment and/or is generally new but may have had some slight damage which has been fixed. Also, it refers to new products with cosmetic damage which still carry a full warranty. Buying B-Stock equipment can get you going on the cheap, but you should know exactly what the damage was, if any, and how it has been fixed. The best time to buy B-stock is following a major convention, such as NAB.

**BACK SLATING**--This is necessary when you shoot a scene and forget to slate it at the beginning. What you do is write out your slate (See "SLATE") and hold it in front of the camera, but hold it upside down. This will indicate to you later on that the scene is back slated. If you can't read upside down numbers, you shouldn't be in the video business.

**BARS AND TONE**--SMPTE color bars and a 1-Khz at 0-db tone go at the beginning of every edited master. This allows for adjusting audio and video levels when dubbing or playing back on another machine. It's extremely important for all broadcast work. Real professionals also put color bars on each tape recorded in the field.

**BETACAM**--A component video recording format created by Sony. It is now the dominant professional acquisition and editing format. The Betacam format separates the video signal into three channels, the familiar "Y", or luminance channel, and two color channels--called R-Y and B-Y. The color reproduction and resolution of the Betacam format are of the finest professional quality.

**BLACK BURST GENERATOR**--This is a device which generates black composite video (a 7.5 IRE black on a waveform monitor). This signal is then used as a reference signal for all other equipment in your editing system. When a black burst signal is fed to Input 1 of the Video Toaster and to the TBC input of your source decks and the genlock input of your camera--all of which will be output into Toaster inputs 2, 3, & 4--it will sync all incoming signals together.

**BLACKING AND STRIPING**--Preparing a tape for insert editing by laying down a black color from your Toaster (any unused input on the Main Buffer will suffice) on the tape while simultaneously striping the tape with either control track or time code. Broadcast-quality decks always apply control track code and will also stripe time code with the addition of a time code card. Ordinary VHS and S-VHS decks all have their own form of control track code. The Horita company makes a device (The TRG-50) which will read or lay down time code on a wide variety of decks, from prosumer to broadcast.

**BURST**--A part of the composite video signal that contains the color reference information.

**CG**--short for Character Generator, an external device or internal program which generates text for superimposing on video, framestores or backgrounds. It's sometime referred to as a "Chyron" which is the professional industry standard trademark for such a device.

**CHROMA-KEYING**--This is a method of keying text or images where the color cobalt blue (and sometimes green) is used rather than the Toaster's 0-black. Unlike luminance keying, the key is not dependent upon the intensity of the color, but on the color itself. In many cases this will give you a cleaner key and you have less chance of having to deal with edge artifacts around your key. TV stations use Chroma-Keying for their weather reports. The weatherperson stands in a set (usually a wall and floor) which has been painted Chroma Blue--a special paint for this purpose--and then lit with flat lighting with as little variation in intensity as possible. The news map is on a framestore and when the time comes to do the report, the weatherperson is "keyed" over the map. He or she has a monitor off to the side in order to see what they are doing and where they are pointing. Do not attempt this at home unless you have sufficient lighting for the Chroma Blue background. A tip: back-light your subject with a yellow or amber light and you will achieve a better-looking key.

**COLOR BARS**--A frame of striped-together SMPTE colors used to match color levels on different source tapes and to calibrate the hue and brightness of a video monitor. Most professional cameras generate color bars. You should have at least 30-seconds of color bars at the

beginning of each tape you shoot in the field. This enables you to adjust color correctly when you're editing scenes together from different reels. Sometimes you have to change tapes and don't have time to put color bars at the beginning--as in filming a sunset, for example. And sometimes you just forget to do it. In that case, put your color bars on at the end of the tape. As long as you have color bars somewhere on each tape you'll be all right.

**CUT**--Positioning an edit so one scene immediately replaces another at the edit point without any intervening effect. Same as a "take" on the Toaster Switcher screen.

**COMPOSITE VIDEO**--This is where the color signal being output is a mixture (a composite) of luminance, chrominance, sync, and burst signals.

**CUTAWAY**--This is a cut that serves as a transition in order to break up lengthy video into smaller pieces, or to edit a conversation. For example, when we see a person being interviewed on TV and it suddenly cuts to the reporter nodding while the interviewee's voice continues, this is a cutaway. At the end of the sentence, it will cut back to the interviewee who will be saying something which may have been minutes away from where the previous sound bite ended. When shooting video, it is always best to get a lot of cutaways, especially if you are doing "how to" videos. If a workman is laying tiles, for example, get a close-up shot of his head to use as a cutaway. If you are doing a wedding, get a pan of the whole room and then close-ups of people at tables which you can use to cut into the pan to make it interesting.

**DEMO REEL**--A tape presentation you put together to show prospective clients the quality of your work. Except in rare circumstances, it shouldn't be more than 10 minutes in length. This is where the Toaster really comes in handy. You can use Toaster effects to transition from segment to segment and really show your stuff! Be daring. After all, this is you that's being presented. It's best to edit your demo reel on the highest quality format you can and then have it duplicated on high quality tape. Make sure your labeling is professional and have a sturdy box for mailing.

**DESKTOP VIDEO**--there is no such thing! Whoever thought up this designation for personal video production ought to be slimed! The term is singularly degrading to anyone doing video professionally, whether it's on a desktop or not. Don't accept it. Don't use it!

**DISSOLVE**--An effect where one picture dissolves into another, the latter gradually replacing the former.

**DISTRIBUTION AMPLIFIER**--This is a device which multiplies a signal so it can be sent to other peripherals. For example, a video DA, hooked up to the Toaster Program output, will provide multiple copies of the signal to monitors, other Toasters or what-have-you. Incidentally, there are video DA's, audio DA's and combination Video/Audio DA's.

**DROP FRAME**--This is a recording and editing time code mode which provides greater accuracy for longer videos and programs where exact broadcast timing is a factor. Most broadcast quality field recording decks and edit/recording decks are equipped with a dropframe mode which, when activated, actually drops two frames (it leaves them out) every 10, 20, 30, 40 and 50 minutes. This function is necessary because analog tape actually processes video at 29.97 frames per second rather than a precise 30. By dropping the aforementioned frames, you will end up with a video or program that is timed precisely to the second.

**DROP SHADOW**--This is the shadow you assign to your text in Toaster CG. It can be varied in color and intensity using the sliders in the color panel. You can also vary the transparency by

placing the Alpha Channel slider (the one at the bottom of the panel) in either of the four designated areas.

**DUB**--A copy of a video or the process of making a video duplicate. Most professional edit decks have a dub mode which will allow you to make a duplicate of very high quality.

**DT**--This stands for Dynamic Tracking which is an option you can get for a professional video source deck which provides you with variable speed playback. With dynamic tracking you can get slow motion or speeded-up motion effects without sync break-up.

**EDIT CONTROLLER**--This is a device used to sync your source deck(s) to your edit/record deck so they will both perform in unison in making an edit. The device can be a mechanical one where you press buttons which send electronic pulses to your decks, such as the Sony RM-440 or RM-450 edit controllers or the more professional Grass Valley or CMX controllers. Or it can be a software-controlled plug-in card which uses your computer screen as an interface as it multi-tasks with your Toaster software, some examples being the AmiLink and the TAO Editizer (which requires a separate PC)

**EDIT DECISION LIST--or EDL**--A computer generated sequence of time codes, video and audio sources and effects transitions for each edit . The EDL is used for on-line edit sessions .

**EDIT POINT**--The point or frame on your edit/record deck where it begins recording new video from the source deck, camera or Toaster.

**EDIT/RECORD DECK**--This is the deck to which you record your finished video or commercial, complete with effects and audio, etc.

**EDIT/SOURCE DECK**--This is the deck which plays your source tapes for editing through the Video Toaster onto the Edit/Record Deck. A camera--either live or in play-back mode--or a VCR may also serve as a video source.

**FADE-IN**--Where a picture fades in from black.

**FADE-OUT**--Where a picture fades out to black.

**FAKE A/B ROLL EFFECT**--Freezing a frame at the end of an edited scene and putting it in your Main Buffer and then setting up your edit points and an effect (probably a dissolve) so that when your edit point is reached the freeze frame matches the last frame of the previous scene and is immediately dissolved into the next scene, giving the impression of having the necessary two A/B source decks which are normally used to perform such a feat in real time.

**FRAME**--a two-field scan (two alternate line half-scans) of a video image. There are 30 frames/60 fields in one second of video.

**FREEZE**--Stopping all motion in a single frame of video.

**GAFFER**--The person who does the lighting. They usually have their own lighting equipment which you can rent by the piece and/or a truck full of lighting equipment which you can rent for location shooting.

**GENLOCK**--This is a syncing of all signals--horizontal phase and sub-carriers--from all video sources together with one master signal--usually called the "house sync." Genlocked signals are



mandatory for Video Toaster editing.

**GPI**--short for General Purpose Interface. This is a feature on your Setup Screen which allows you to use a GPI cable to trigger Toaster Effects automatically. The cable is attached to your second mouse port by a nine-pin connector and runs to the GPI output of your edit controller. When your GPI interface is in the (+) position, it will trigger an effect immediately after your edit point. When it is in the (-) position, it will trigger an effect immediately before you edit point. This is a handy option to have if you are into serious video because it relieves you from the inaccuracy of eye-balling the triggering of effects. There is a schematic in the Toaster manual which shows you how to build your own GPI trigger cable. However, the popular Sony RM-440 edit controller takes a special cable in order to work with the Toaster.

**GRIP**--The lighting person.

**HOUSE SYNC**--This is the black burst pulse delivered into Toaster input #1 by a distribution amplifier. It provides the synced signal to which all other signals will be timed, therefore it is the "house sync."

**INSERT EDITING**--This is editing on a tape which has been pre-blackened and encoded with either control track or time code. (See "BLACKING AND STRIPING.") A deck in insert edit mode will read and operate according to the code already laid down, but will not lay down new code when it records--as it does in the assemble edit mode. This allows you to edit and re-edit scenes smoothly with no stops occasioned by video drop-out or a switch in time code that would happen if you tried to edit in the assemble mode.

**JOG/SHUTTLE CONTROL**--This is the big, round knob found on most professional VCR's or edit controllers. It's used to manually advance or reverse your video a frame at a time--usually to establish an edit point. A jog/shuttle control saves you the time of fast-forwarding and reversing your deck and then trying to pause it where you want it. If you are considering doing serious editing without a jog/shuttle control on at least your edit/record deck, forget it!

**JOYSTICK**--a triggering device used for video games which, when plugged into the second mouse port of your Amiga, will trigger a Toaster Effect faster than hitting the Spacebar. If you do not have a GPI trigger (See "GPI") and have to eye-ball the triggering of your effect, a joystick will give you more accurate control. Just hit the joystick's "fire" button when you want to trigger an effect. Make sure your GPI Interface panel on your Toaster Setup Scree is in either the (+) or (-) position.

**JUMP CUT**--This is where two scenes from the same angle containing motion are cut together--a talking head, for example. The cut in the motion causes the edit to appear to "jump" at the edit point. Mostly, this is to be avoided, but it is sometimes used as an avant garde technique. A more professional technique is to change angles or image framing between shots.

**KERNING**--This is the of the process whereby you adjust the space between letters that have been loaded from the fonts directory onto the CG screen. Frequently you will have larger spaces between some letter combinations--such as a "V" and an "A"--and you will want to adjust the spacing so it will look more natural. So you "kern" it by placing the cursor on the letter, holding down the Alt key and tapping the cursor arrows to shift it left or right.

**KEY**--A key is when you superimpose text or an image by electronically dropping out the

background around your key text or image. On the Toaster this is accomplished by manipulating the black or white luminance controls. (See "LUMINANCE KEYING" and "CHROMA KEYING.")

**LUMINANCE KEYING**--This is keying text or a graphic by increasing or lessening the intensity of a black or white background, e.g., black luminance keying and white luminance keying. If you have a graphic on a 0-black background in your Toaster, you can key it over live video or a framestore by highlighting the corresponding DV Buffer it is in on the Superimpose panel and also highlighting the black colored oblong button underneath it. You then click the mouse on the numbers to the right on the panel and, holding the left mouse button down, drag the numbers down to where the graphic appears cleanly over the live video or framestore. This is called setting the clip level. If parts of your graphic drop out also, that means that they are also 0-black and will have to be changed. To do this, import the graphic into the Toaster Paint Program and, using the smallest square brush, paint over all the black areas that were showing through with a black scaled to 16. You activate the scale by clicking the mouse on the color bar of the paint panel and, holding down the left mouse button, dragging the cursor over the scaled black area until you see three 16's appear in the RGB indicator panel. It is best to load the graphic to be keyed into DV 2 because that seems to provide the cleanest image.

**MATCH FRAME EDIT**--A match frame edit really requires an A/B roll system and time code. There are times when you will want to do an effect or a transition from your A to your B roll and back to the A roll again, but the scene you want when you go back will be someplace else on the A roll source tape. This means your edit controller is going to have to keep everything in frame-accurate sync while you position the new scene in your A roll source machine. When you pick up the edit, the edit/record deck must start precisely on the frame where it ended and the B source deck must also start precisely on the frame where it ended, the two frames matching the frame where they left off. The edit then, from the B roll to the A roll will be precise--a match frame edit.

**NON-DROPFRAME**--This means that in this mode your field deck or record/edit deck will not drop a couple of frames every ten minutes. Avoid this mode if you are doing broadcast show-length productions.

**NON-LINEAR**--The editing concept that bypasses the present state of having to search--fast-forward in a linear manner--a tape to the segment you want to use in your next edit. Non-linear editing lets you record live video (or process taped video) onto a hard drive (or string of hard drives) where it can be called up instantly, much as you now call up a framestore on your Toaster. The ultimate in non-linear editing will be a system where you can identify video segments on your hard drive by time code and program them all together as you would want them edited, complete with programmed audio, fades, wipes, dissolves, supers, graphics and special effects. Once your edit list has been programmed, you merely hit a button and it all comes out of the Program Output onto whatever recording device you have attached. Non-linear editing is the production editor's Nirvana! Look for video and audio tape to become an exhibit at the Smithsonian by the year 2000. That'll be the only place you'll be able to see it!

**NTSC**--short for National Television Systems Committee.

**OFF-LINING**--This is making a preliminary cuts-only edit of your video project. This gives you an idea of what it will look like before you put in effects. It will help you plan which effects you want to use. In professional circles, off-lining entails doing a cuts-only edit with window burns of

your time code (See "WINDOW BURNS") so you will be able to locate your source scenes easily in the more expensive on-lining session. Off-lining can also entail the creation of an EDL--Edit Decision List--to be used in your on-line session.

**ON-LINING**--This is the edit session where you put your video project together for real with all the audio, graphics and effects you'll need to complete it. In personal video production you're probably using the same equipment for on-lining as you do for off-lining. In fact, most personal video producers go right from shooting to the on-lining process. But if you are on-lining at a post production house, you're tying up an editor, an assistant and usually a graphics person, not to mention hundreds of thousands of dollars worth of equipment. That's why on-lining sessions cost from \$300-\$600 an hour at the bigger editing facilities!

Now you can see why off-lining makes sense. Frequently, in the more professional circles, an off-line session will generate an EDL (Edit Decision List) which is a computer-generated sequencing of time code for scenes selected in the off-line process. This list can be used to save money in the on-lining process a couple of ways: 1) input into the on-line system's computer, it lets the post production editor punch in the time code, insert the tape reel, hit a button and the tape will cue up automatically at the edit-in point selected in the off-line session, or 2) many advanced post production houses can use your EDL to put the whole production on automatic, i.e., after you have "cleaned" the list (extracted false starts and stops, etc.) it is programmed into the on-line computer and all the source reels are put into a stack of source decks. The editor then hits a button and the on-line computer automatically cues up the different scenes from the different source decks and, according to the EDL, automatically edits everything together, even performing match-frame edits.

**POST PRODUCTION**--All editing, including audio, graphics and effects, done after the shoot to come up with a finished project.

**PRE-ROLL**--When both your source and edit decks back up (usually 5 or 10 seconds) and lock-up so they can roll in sync at the proper speed when they hit the edit point.

**PROC AMP**--Means processing amplifier. Most worth-while TBC's have proc amp controls which allow you to adjust the chrominance, luminance and set-up of the video up or down. Chrominance adjusts the color saturation and luminance the brightness. Set-up adjusts the blackness of the picture. Proc amp controls really come in handy when you have been forced to shoot video outdoors on alternately sunny and cloudy days.

**RGB**--Literally Red, Green and Blue. These are the three colors the Toaster uses to mix to make all the other colors.

**SCENE LOG**--This is a paper list of all the video you did on your shoot. You go through it and log each scene on each reel, including time code in and out (if you are using time code) and what the scene is all about--plus whether it is one you might want to use or not. This can be a tremendous help in editing your video. It saves you time searching through a bunch of reels for a particular scene. It will also let you know immediately if you forgot to shoot a scene, allowing you to re-shoot right away or to find a solution for the error before your on-line post production session. A typical scene log entry might look like this:

**Reel #1 Scene 4 Take 3 1:20:10:15 to 1:20:13:17 Lady picks up knife.**

**SHOOT**--Using a camera to put scenes on tape, whether in a studio or on location.

**SLATE**--A slate is used to identify each scene during a shoot. It's that thing with the black & white stripped clapboard on top. For each scene you slate the reel number, scene number and take number. For each additional take of a scene, you advance the take number. Modern slates have the time code electronically displayed, too. You also put on the slate the name of the production and the director's name. You can buy slates in any good photography or video store or you can simply use sheets of white paper on a clipboard on which you write with a black marking pen.

**SLATE FRAME**--This is a frame which identifies your production. It is usually put up for ten seconds between the color bars and the beginning of your video. It is put in last, after you have finished the edited master, because it should include the running time of the production. Slate frames should carry the production name, product name (if any), running time, date it was completed (or re-edited), whether the audio tracks are separate or mixed and the name of the production company.

**SMPTE**--short for Society of Motion Picture and Television Engineers.

**SWITCHER**--a device or program which allows you to switch from one video input to the other whether live video, source deck(s) or graphics.

**STRIPING A TAPE**--Putting SMPTE time code on it when you black it.

**SUPER**--short for Superimposition. You "super" something such as when you superimpose text over video. (See also "KEY".)

**TAKE**--Where one scene or frame is recorded immediately after another with no intervening effect. Also called a "cut."

**TERMINATION**--No, it's not a pink slip for doing bad video. Video termination means to ground with 75 ohms. Unless your monitors or video equipment are terminated, you'll get an over-saturation of color and brightness. You'll find four termination buttons on the Toaster Setup screen which correspond to the four Toaster inputs. They should be depressed and set to the "on" position. They will stay that way after you have set them. Also, check your monitors. The better ones have a termination button on the back with an "on-off" switch. "On" means your signal is terminated and that's what you want. A lot of people confuse the "off" position as having turned the signal off but that's not the way it works. You want to switch to the "on" position to terminate a signal in an input. The only time you select "Off" is when you loop the video signal through the monitor and send it somewhere else--where it must be terminated.

**TBC**--Time base corrector. The Toaster demands a synced and stabilized (genlocked) signal going through it in order to time digital and mechanical functions and a time base corrector does this. Many TBC's have additional features such as proc amp controls for adjusting color, Y/C inputs/outputs to separate and adjust chrominance and luminance for S-VHS or Hi8 work and freeze and strobe capabilities. Determine your needs precisely before getting one, but you must have at least one TBC to do video editing on the Toaster.

**TIME CODE**--Time code is the SMPTE standard for professional editing operations. It operates in either dropframe or non-dropframe mode. (See "DROPFRAME" and "NON-DROPFRAME".) Unlike control track code, time code requires special cards and edit controllers in order for your system to be synced to this industry standard. The advantage of time code is that it allows you to do frame-accurate editing as opposed to the (+) or (-) one or two frames or more accuracy you have to live with with control track code. Frame-accurate means you will never lose your place

between your source deck(s) and your edit deck. You'll be able to stop and edit in the middle of a scene and pick it up precisely where you stopped--video and audio. It means you will be able to do match-frame edits where you have to stop your edit deck at the end of a scene and load a new source tape into your "B" deck to do a dissolve to the next scene. With time code you can precisely pick up where you left off on your "A" deck and edit deck when they stopped. Let's face it, time code is the only way to go if you need real match-frame editing.

**TRANSITION**--a passage from one scene to another by means of an effect. This differs from a wipe and a dissolve in that neither scene shares screen space with the other at any time.

**VECTORSCOPE**--a device used to correct and adjust the color subcarrier phase of a video signal. It can be a stand-alone unit or a card with software or external controls for your Amiga/Toaster.

**VIDEOGRAPHER**--This is another term which ought to be drummed out of video usage. You do video. You're a cameraman or camerawoman. You're a producer or a director or all of the above, but never a "videographer." Ugh!

**WAVEFORM MONITOR**--a device used to correct or adjust the grayscale luminance portion of a video signal. It is also used to verify the syncing or timing of signals. It may be a stand-alone unit or a card.

**WINDOW BURNS**--Window burn dubs are usually made for the off-lining phase of video production. A window burn is a graphic display of time code in a "window" which is usually at the bottom of the dub. It shows the reel number, the hour, minute, second and frame of your source tapes.

When such scenes are strung together in an off-line edit (See off-lining) it makes it easier on the editor in an on-line session to go right to the source tape and the scene on that tape he or she needs. Since one-line sessions are usually four times as costly as off-lining, doing window burn dubs makes good economic sense.

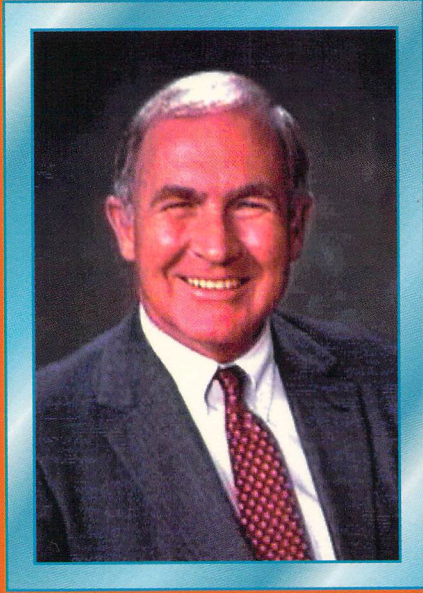
**WIPE**--a change of the entire screen by means of an effect, i.e., one picture is "wiped off" or "wiped over" while the effect replaces it with another. (See "TRANSITION.")

**Y/C VIDEO**--This is where the luminance and chrominance of the signal output are separated into their component parts.





# THE MOST COMPLETE "HOW TO" BOOK EVER WRITTEN FOR THE VIDEO TOASTER



**Burt Wilson** is an award-winning writer, producer/director and post production professional in Southern California and heads the video SIG of the Los Angeles Video Toaster Users Group. He has produced commercials for national television and videos for international distribution and is the winner of four Telly Awards.

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