dvd menus
Start to Finish

dvd menus, start to finish

BY RICHARD HARRINGTON

DVD Menus, Start to Finish: How to Build a DVD Menu
Speaker: Richard Harrington, RHED Pixel
Date/Time: Friday (July 16, 2004)   9:30am — 11:00am
Track: Video   Format: Workshop
Level: Intermediate - Basic familiarity or some experience.

Description: This session will show you techniques for shooting your own motion graphic footage plates as well as compositing techniques using Photoshop and After Effects. Advanced steps like highlight layers and encoding will also be shown. If you've ever wanted to learn the process, come to this informative session.

I've been meaning to teach this lesson for a long time. The teacher in me is excited to share this technique. The business owner was a little hesitant to let you in on one of my company's greatest secrets. Let me start off by saying a few things:

1.   These techniques are not difficult.

2.   The equipment needed is very modest.

3.   You have to learn to trust yourself.

4.   The render times are very short.

5.   This really does work.

6.   Your clients will be impressed.

'Okay,' you ask... why so much justification? Well I've got a very useful secret. Making your own looping backgrounds and DVD menus is not very hard. In fact, you can use random objects and 'bad' videography to pull it off. We have a motion graphics shoot ever other month in my office, its come to be known as 'Shiny Stuff Day.'
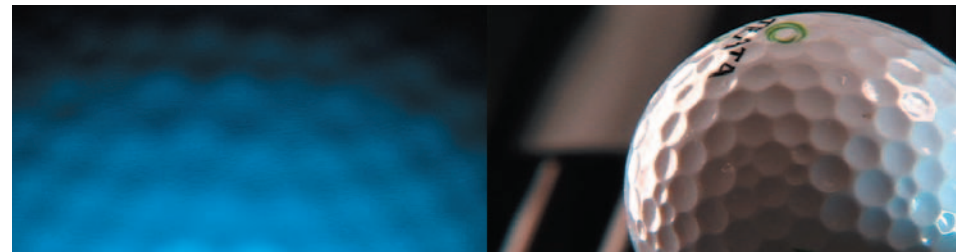
Getting Started

Pulling these techniques off involve just a little bit of optical 'squinting.' By playing with your camera and subject, you can easily achieve great looks within the camera. The goal is to not finish the job in the camera, but great footage goes along way towards great graphics. To emphasize again, trust yourself here... as long as you are wiling to experiment, you can achieve great creative results. It's my personal believe that creativity is an artists ability to let go of their fear and take chances.
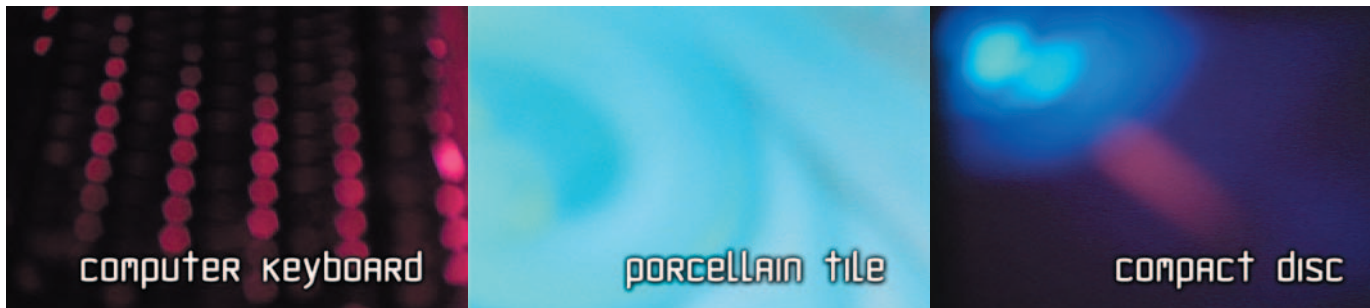
foil-wrapped mints
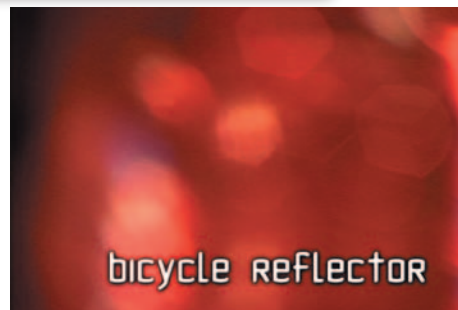
Get it Together

It's important to find your objects to shoot. Anything that reflects light is an awesome candidate. Colorful objects produce nice results are helpful. Highly reflective surfaces like porcelain and metal can be very useful. Knick Knacks and drawer contents can work. Just announce to your team to bring things in to shoot. You'll be surprised by the diversity of objects they'll bring and even more surprised by the results you'll get.

bicycle reflector

Make it Happen

Any video camera will work, but try to shoot on a digital format that will allow you to cleanly transfer the files to your system. Some of the flaws of video like flares and hotspots will actually come in handy.   If you have access to camera filters, a soft fx filter or pro mist can help soften your image. Before shooting, ensure that your lens is clean. Extra dust or smudges on the lens won't help you here

More useful than the camera will be your tripod. The movement in the textures will usually come from moving the lights or objects, not the camera. This is where the field monitor will come in handy. By being able to see your results, you can make variations in the speed and type of movement. Your best results will often come from Macro or Extreme Close-ups, camera movement will be too jarring when tightly focused.

computer keyboard

porcellain tile

compact disc

Shiny Stuff Examples

- Wrapped mints
- Metal candle holders
- Plastic boxes
- Light disc
- Award statues
- Kitchen utensils
- Jewelry pieces
- Crystal glass
- Liquids of various densities
- Holiday lights
- Scientific flasks
- Dinner plates
- Porcelain fixtures
- Metal air vents
- Electric fans
- Candles

Light the Way

You're about to spend some time in the dark. Be sure your shooting environment is set up with what you need and that your props are handy. You will also want the ability to easily turn lights off and on in the room to make set-ups easier. While a few studio lights can be useful, you can also get away with cheaper shop lights from a hardware store.

While you can always add color effects to your After Effects comp, don't be afraid to try another type of filter. Lighting gels can be easily bought from Professional Lighting stores, at Audio Centers that cater to DJ's, or from online vendors. We keep a 'party pack' with our lights that contains several different colors. You can tape the gels around your handheld lights (or even in front of the camera lens) to add important color.

The most useful item for lighting is handheld shoplights. These small fluorescent lights can put off enough light for your project. They are also cool to the touch and light-weight. This will allow you to create subtle 'motion' as the light moves across the surface of the images. The use of gentle rhythmic movement will give you the needed 'motion' for your motion graphics.

And Action!

It's now time to shoot. When you start your cameras rolling, be sure to get enough footage. I recommend that you roll for 1-3 minutes on each shot. This will give you plenty of variation to choose from and more than enough footage to make longer looping backgrounds.

Remember to experiment with focus and iris. Don't be afraid to try out an idea here. Just watch your confidence monitor to make sure things are 'working.' Keep an eye on your white level to ensure the video is not getting too hot. These types of shots are prone to overexposure. While you're shooting... also consider capturing some still photos for use in high-resolution print projects.

Once you trigger the camera, it is okay to step away (provided its on a secure tripod). The goal is to minimize any movement of the camera. Take advantage of your turntable or Lazy Susan. Even without rotating the object, the subtle motion of moving the handheld lights will give you great results.

The goal is to create as much magic within the camera as possible, but don't worry After Effects is only going to make things better in the end.
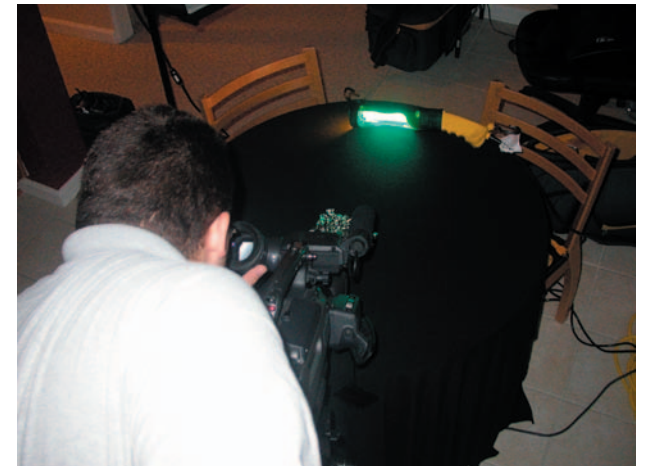
Load it Up

At some point, you'll stop shooting (it's okay to be a little sad... but you can come back again). You'll need to move back to the post-production side and get the footage into your computer. You don't really need a full-blown editing application... just someway to load your footage in. Both Macs and PCs have free solutions available for capturing Digital Video over Firewire. Here's some tips to ensure your success.

1. Be sure to clearly label the clips with a descriptive name.

2. Capture in the highest quality mode you can.

3. To get the most mileage from your footage, investing in an external drive to hold it. This way it can be easily shared with others in your office.

4. If your editing system does not capture to a format that After Effects can read, you'll likely want to create subclips and re-export the footage to your drive.

5. Be sure your clips have proper file extensions. It is common for editing programs to not add the needed tags.

suncatcher prism

paper clips

vacuum hose

Start Your Engines

It's now time to switch over to After Effects. If you don't have access to AE, you can pull these same techniques off using Discreet Combustion or Apple Motion. The key here is you need a timeline based motion graphics application that can support blending (transfer) modes. The ability to nest or pre-compose will also come in handy.

Blending Modes are an incredibly powerful feature of compositing applications that determines how one layer interacts with another. Elements can interact in new and exciting ways thanks to blending modes. The easiest way to learn blending modes is to just try them. The keyboard command Shift + – or Shift + + will cycle you through them in Adobe applications.
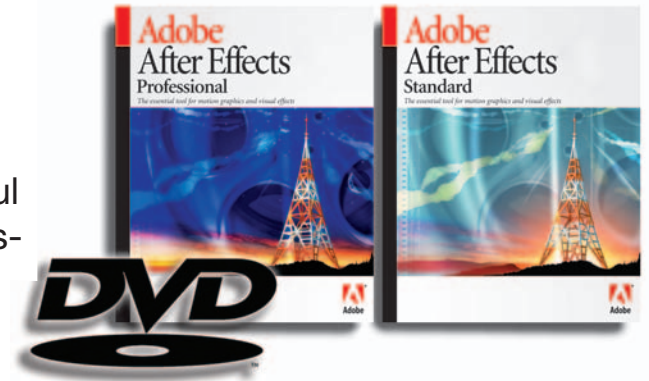
Filters take on new life when you blend a filtered copy of a layer over the original. Blending Modes can also solve the problem of knocking out a white or black background. My favorite use of blending modes however is creating moving backgrounds for use in a video project. Let's take some of the great footage made earlier in this tutorial and put it to work

DVD Design Guidelines

Square vs. Non-Square Pixel Aspect Ratio: DVDs use non-square pixels. If you are building in Photoshop CS or After Effects, this is no problem.

The Screen is Smaller than You Think: All words must fall within the Title Safe area, which is 80% of the screen. All logos or elements mean to be seen in their entirety must fall inside of the Action Safe area, which is 90% of the screen.

Final File Ends Up 720 X 480 Pixels for NTSC: Whether its widescreen or standard, you still only have an area that's 720 pixels across and 480 pixels tall to design for.

Start High... Finish Low
Design your DVD elements at the highest quality codec available to you. It's better to give your compression program a high quality file. Even if you are using DVD acquired footage, render out to the Animation (or another lossless) codec before going to MPEG-2.

Import and Build

1.)   Create a new project. Save and name the file.
2.)   It's time to bring your captured clips into After Effects. You can choose File>Import or drag them into the project window.
3.)   Select three to five clips that you'd like to use and drag them on the new composition icon. This will create a new comp with all your footage layers.
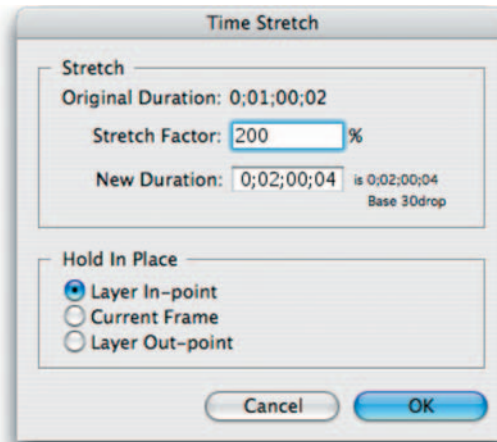
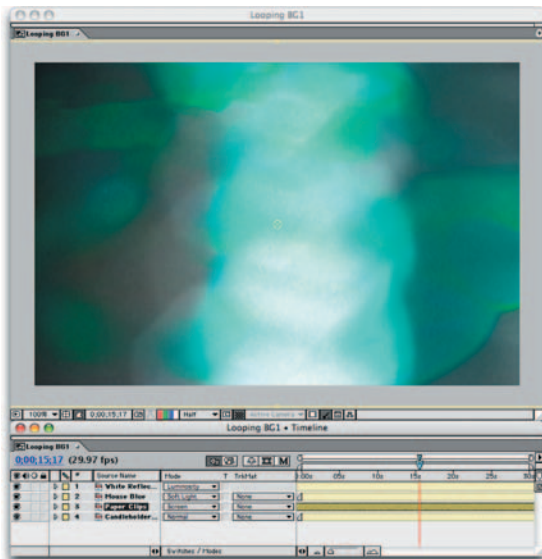4.)Check your composition settings by pressing Cmd+K (Ctrl+K).
From the preset menu, choose NTSC DV, 720 X 480, and gave the comp a better name. Also, set the duration to 30:00
5.)If your footage is not long enough, you can stretch it by choosing Layer>Time Stretch. Go with even increments like 200% when stretching a layer. Enable frame blending as well for all stretched layers.
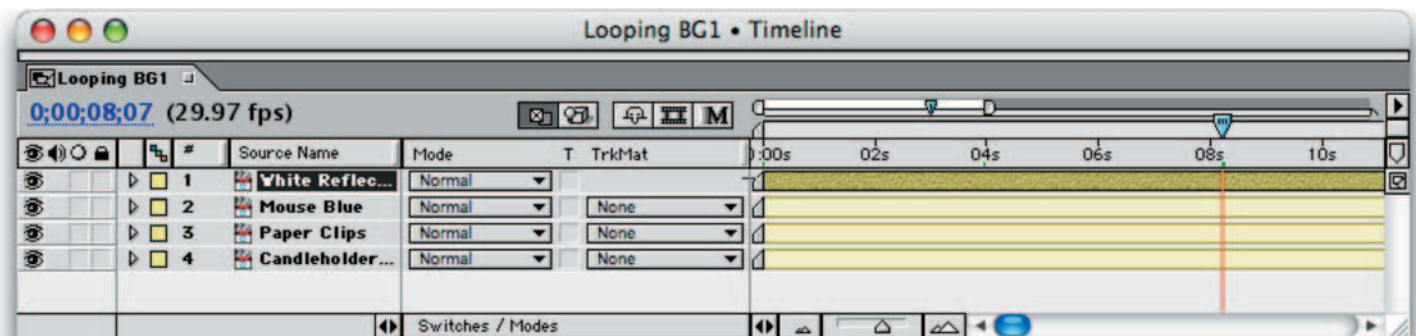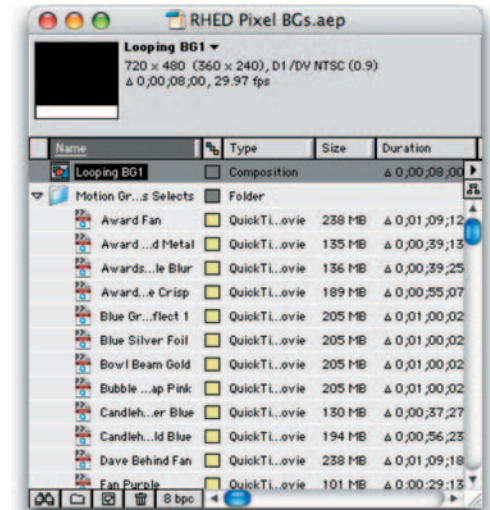
Mix and Blend

1.) Turn off all layers except the bottom-most two. Adjust the blending modes on the top layer until you find a look that you like. You can use the keyboard shortcut Shift + - or Shift + + to cycle modes. Experiment with blur filters on the top layer and adjust opacity to personal taste.
2.) Activate RAM preview to see your results.
3.) Repeat the blending technique on remaining layers.
4.) Try changing stacking order and opacity to achieve additional options.
5.) Activate RAM preview to see your results. You can press 0 on the numeric keypad as a shortcut to invoke RAM preview.
6.) To create the soft bloom, add an Adjustment Layer. Apply the Gaussian Blur effect and adjust the layer's blending mode and opacity settings.
7.) Solo your bottom-most layer for easy viewing. For greater visual impact, I recommend boosting the intensity of your bottom layer. You can do this through a Levels adjustment.

Make the Loop

1.) Now its time to create the loop. Highlight all of your footage layers. Create a Pre-composition by choosing Layer>Pre-compose or pressing Shift+Cmd+C (Shift+Ctrl+C). Name the Pre-comp Footage BG.
2.) Access your composition settings by pressing Shift+Cmd+K (Shift+Ctrl+K) and shorten the comp to be 25:00.
3.) Go to the 12:00 mark by pressing Cmd+G (Ctrl+G) and entering 12:00.
4.) Split the layer which will create the loop point. Select the layer and press Shift+Cmd+D (Shift+Ctrl+D).
5.) We now must overlap the layers. With Layer #1 active, jump to the end of the composition by pressing the END key on your keyboard. Press the right bracket key (]) to move the layer's out point.

Color Your Background
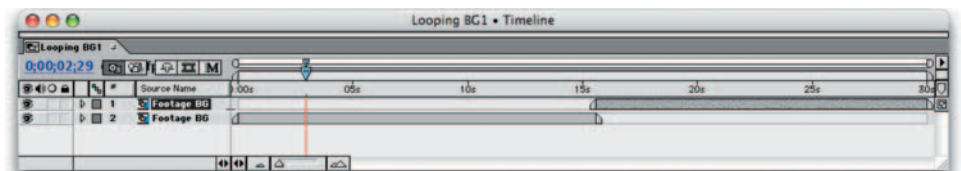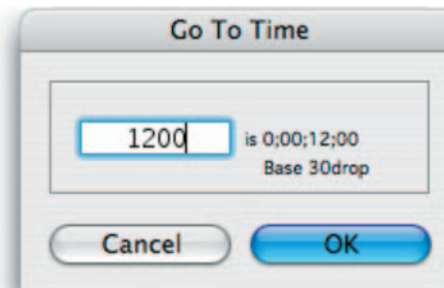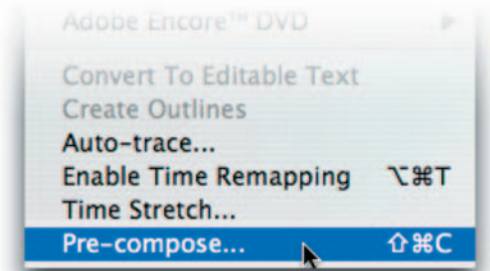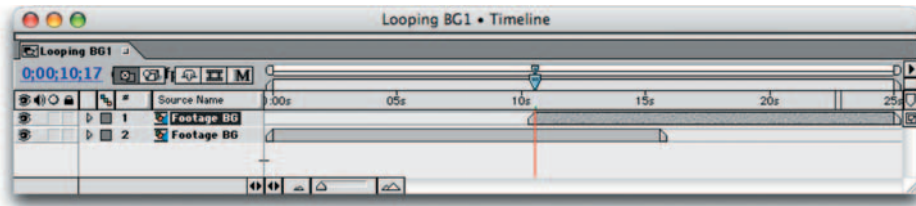
6.) Select Layer #2 then press the HOME key. Press the left bracket key ([) to move the layer's in point.

7.) Activate layer #1 and press I to jump to the layer's in point.

8.) Press Option+T (Alt+T) for opacity and activate the stopwatch.

9.) Set a keyframe for 0% opacity.

10.) Jump forward four and a half seconds by pressing Cmd+G, then typing +4:15.

11.) Set a keyframe for 100% opacity.

12.) Flip the quality switches to Best Quality.
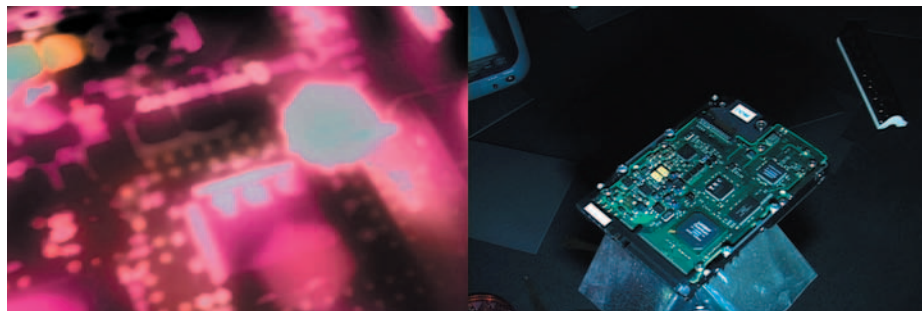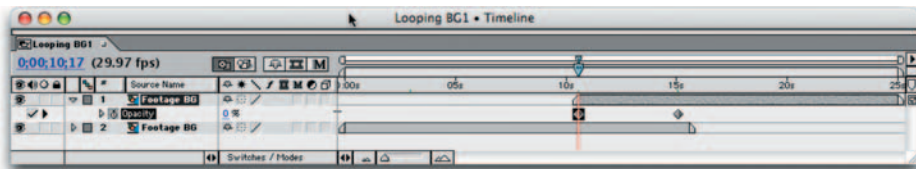
Even old office equipment can come in handy when making backgrounds.

1.) By placing an adjustment layer on top, you can apply global effects or adjustments to all layers below. Use this to tweak your saturation or intensity. Add an Adjustment Layer at the top of your stack (Layer> New> Adjustment Layer).

2.) Apply a colorization effect such as Colorama (Effect>Image Control> Colorama), Tint (Effect> Image Control>Tint) or Hue/ Saturation with the colorize option selected (Effect>Adjust>Hue/Saturation).

3.) You may want to apply the Effect> Video> Broadcast Colors filter. Other filters can be applied for a global effect as well. It is significantly faster to apply an adjustment layer, then to render individual effects on each layer.

4.) You may also experiment with other effects on the adjustment layer such as Glows, Blurs, Light Burst or Trapcode's Shine.

5.) Make sure frame blending is enabled and check your layer blending modes. Flip all your quality switches to Best, and render at Lossless Settings.
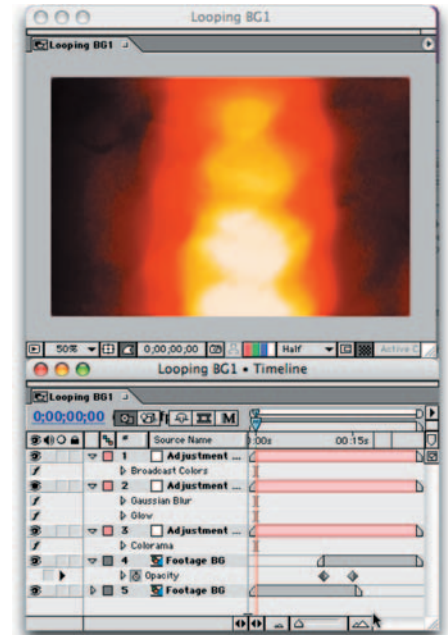
Do It Your Way

At this point, you need to finish the menu. You may choose to utilize your full toolbox here. Perhaps you'll just take your looping background into your DVD authoring application such Adobe Encore or Apple DVD Studio Pro. You can also take advantage of the powerful compositing and masking abilities of After Effects.

The point is to build your menu to you (or your client) is happy. If you finish in After Effects, you'll need to create a highlight layer for your rollover effects.


DVD Studio Pro

Export Highlight Layer

Your DVD authoring app is going to need a map image to determine what lights up. This grayscale image identifies where the glows appear. It is an overlay for the moving video file.

1. Complete your DVD menu and render out the final version using a lossless codec.
2. Save your After Effects file to capture any changes.
3. Set your Comp Window to 100% and Full Quality.
4. Go to a representative frame and choose Composition> Save Frame As> Photoshop Layers

5. Open the file in Photoshop to further modify it. If you open it into Photoshop CS, check that the Pixel Aspect Ratio settings are flagged as non-square.
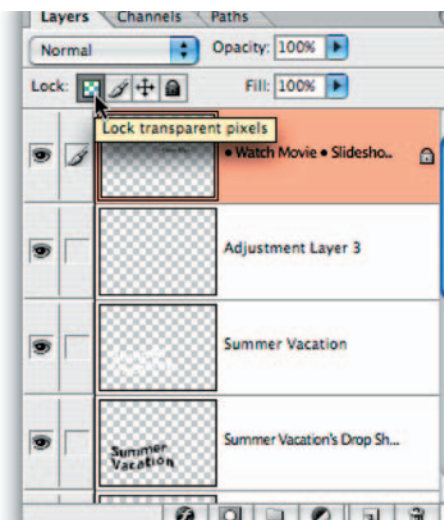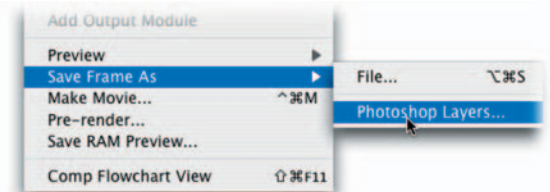
6. Turn off the visibility icon (eyeball) for all layers that are not part of the highlight layer.

7. Select one of the visible layers and choose Merge Visible from the layer palette submenu.

8. Lock the transparency for this new merged layer by clicking on the Lock transparent pixels box.

9. Choose Edit>Fill and fill with Black (or White, depending on your DVD application)
10. Create a new Empty layer and place it in the background.
11. Select All, then fill this layer with White (or Black, again depending on your DVD application).
    The goal is to create a high-contrast matte.
12. Delete any unused layers from your PSD document.
13. Choose File>Save As to and save a flattened PICT or TARGA file.
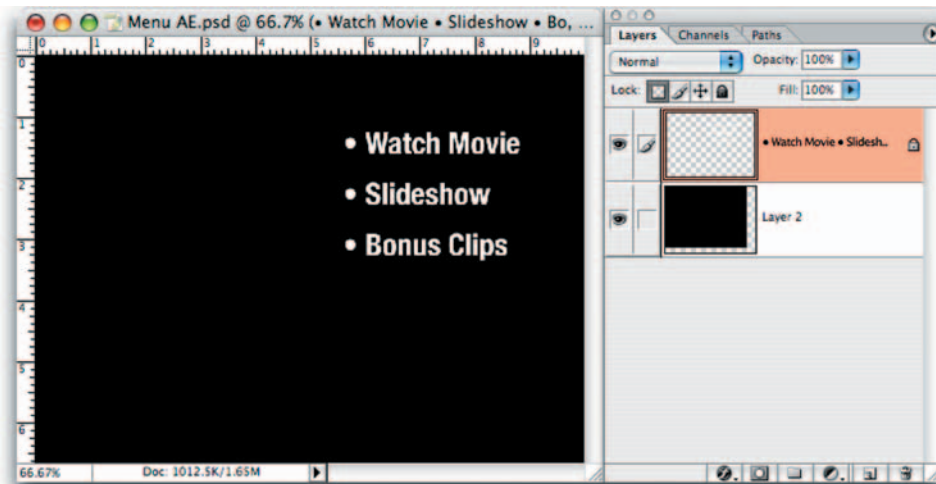
14. Save the layered PSD file so you can make future modifications.
15. Duplicate the Flattened file, open it and choose Select All. Pressing Cmd+I (Ctrl+I) to Invert the image. This way you'll have both for your DVD authoring application if needed.

Resources

www.adobeevangelists.com

www.cmpbooks.com

www.creativecow.net

www.dv.com

www.fmctraining.com

www.macdesignonline.com

www.rhedpixel.com

www.xvzine.com

Recommended Reading

DVD Studio Pro 3 - Bruce Nazarian

DVD Demystified - Jim Taylor

Designing Menus with Encore DVD - John Skidgel

Instant Encore DVD 1.5 - Douglas Spotted Eagle

After Effects On the Spot - Harrington/Max/Geldud

Photoshop CS for Nonlinear Editors - R. Harrington

About the Author

Richard Harrington is a certified Project Management Professional, Apple Certified Trainer in Final Cut Pro, and Adobe Certified Expert in Photoshop and After Effects. Additionally, he has completed Avid's Master Editor Workshop and the Avid Certified Instructor Program.

His visual communications consultancy, RHED Pixel, creates motion graphics and produces video and multimedia projects. He is a faculty member at The Art Institute of Washington, a popular speaker at conferences, and an instructor for Future Media Concepts.

Company:
**RHED Pixel**
http://www.rhedpixel.com
info@rhedpixel.com

RHED Pixel is a visual communications company that specializes in creating effective vehicles to carry client messages. RHED Pixel, designs motion graphics and produces video and multimedia projects at their integrated production facility.

Books:
Photoshop CS for Nonlinear Editors, 2nd Edition
This comprehensive guide to the video tools in Adobe Photoshop is filled with techniques for combining still and moving images to create compelling graphics for use in television, video, the Internet, and DVD.
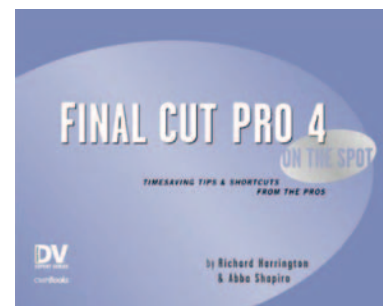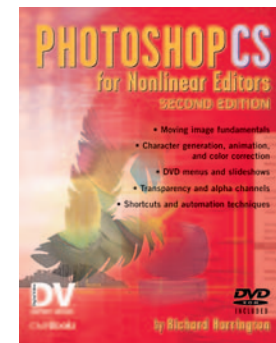
Final Cut Pro 4 On the Spot
Final Cut Pro 4 On the Spot presents immediate solutions in an accessible format. You can zero in quickly to just the solution you need the moment you need it. Co-written with noted Apple trainer Abba Shapiro.

After Effects On the Spot
Packed with more than 400 techniques, this book gets readers up-to-speed efficiently by letting them learn what they need to know, when they need to know it. Co-written with Rachel Max and Marcus Geduld.
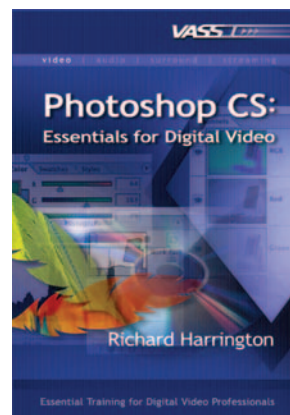
DVD:
**Photoshop CS:
Essentials for Digital Video**
www.vasst.com
This training DVD teaches video pros the essential skills needed for creating graphics for use in video. Specific techniques used by award-winning editor Richard Harrington are clearly demonstrated.