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ADOBE PHOTOSHOP 5.0 STUDIO TECHNIQUES

Image Blending Part One

BY BEN WILLMORE

NO MATTER HOW MANY TIMES I SEE THEM, I'M ALWAYS IN AWE OF THE AMAZING SPECIAL effects you see in big-budget Hollywood flicks. I know it's all man-made digital voodoo, but I still get a thrill when the effects are done so well. Consider *Jurassic Park* when they blended the computer-generated dinos with actors and live-action backgrounds — so incredibly lifelike that you wouldn't be surprised to find yourself standing behind a Velociraptor in the popcorn line.

In *Photoshop* you can create your own kind of movie magic by blending diverse visual elements into one big picture (the only difference is the pictures don't move). Some people call this compositing or image blending. This is where *Photoshop* really gets to strut its stuff and where you can put your creative agility to the test. The possibilities with compositing are truly boundless. Where else could you create a passionate embrace between an ugly, smelly, wrinkly bulldog and his arch-rival, a prim and proper kitty-cat. (Robert Bowen did it, and the piece even won the Gold Lion Award in Cannes!) Where else could you put the face of a famous singer onto the body of a goldfish and have her swim around her own fishbowl? Certainly not in real life! But with *Photoshop* all you need is your imagination and bag full of good blending techniques.

THREE WAYS TO BLEND

In this article and the next we'll explore the features that allow you to blend multiple images into one seamless composite.

We'll cover grouping layers, blending sliders, and layer masks. Once you've mastered all three, you'll be able to blend your images together like magic. But before we start blending some images, let's take a look at how these features work.



Grouping Layers. When two layers are grouped together, the top layer will show up only in those places where there is information on the layer directly below it. This can be useful for simple effects like photographic edges or placing a photo inside of some text.

Sample Use: You've spent hours creating a big retro-looking headline that could have come from the movie poster of *Creature from the Black Lagoon*. Your client, not exactly the king of good taste, calls and says he wants you to put flames inside the headline. You put aside your better judgment and agree to the flames, but only because he pays on time. Then he calls back; he's got some unresolved issues. He doesn't know whether he wants flames or hot lava inside the text, and he's also thinking about changing the headline altogether. He wonders out loud if it will take long or cost much more to do this? "Well," you say, "I think I could wrap this up in about three hours." Greatly relieved, he tells you you're a miracle worker and hangs up. Then you pop open the Layers palette where you've grouped the headline and flames, and faster than you can say hocus pocus you've tweaked the text and are off to the beach for a three-hour (paid) vacation.

Blending Sliders. The blending sliders allow you to make certain areas of a layer disappear or show up based on how bright or dark they are. So, if you want all the dark parts of an object to disappear, you can easily do that.

Sample Use: A big fish prospect that you've been trying to snag for months finally throws you a bone. She's desperate because the super-swanky design studio she usually uses can't meet her deadline. You know she's just using you, but what the hey, it's a shot at a new client. She's given you some images that you've loaded into *Photoshop*. One is a photograph of some big, fat, billowy clouds; the other is of a bunch of whales. She wants you to make it look like the whales are swimming around in the clouds. In some places she wants the whales to replace the sky that is behind the clouds, but in other places she wants the whales to actually blend in with the clouds. Very surreal. She impatiently bites her nails and wants to know how many hours it will take to get the effect. You know you can nail this job in a jiffy with the blending sliders; so while your hands are busy with the mouse, you give her a fearless look and reply, "I'll do it while you wait." She frowns, "I can't just sit around here for hours!" You smile, "No problem, it's already done." The look on her face delivers the good news — you've got a client for life.

Layer Masks. I consider layer masks to be the most powerful blending function in *Photoshop*. With layer masks you can make any part of a layer disappear and control exactly how much you'd like its edge to fade out. What you can do with layer masks is infinite.

Sample Use: You're waiting for your biggest client, a twenty-year-old creative genius with a ring in his nose. Al-

though this is just a planning meeting, you know from experience that the genius will want to see some action. Armed with your fastest computer and *Photoshop* at the ready, you're not surprised when the kid comes in and starts throwing around mad-cap ideas like they're going out of style. Blending seems to be the theme of the day. First he wants something that looks like a skyscraper growing out of a pencil. Then he changes his mind and decides he wants to fuse together a hippopotamus and a ballerina. But then he gets a funny look on his face and says, "I know! Let's put Godzilla in an Elvis suit!" Ahhh, you think, a perfect day for layer masks. Without batting an eyelash, you go about the business of giving 'Zilla his new look. Six months later you almost choke on your coffee when you find out that your Elvis-Zilla ad got an award.

Now that you have a feeling for the blending options that are available, let's get into the specifics.

GROUPING LAYERS

When you group multiple layers together, all the layers within the group will be visible only where there is information in the bottommost layer of the group (see *Figures 1 and 2*). You can group layers together by using any of the following techniques:

- Double-click on a layer and turn on the Group with Previous checkbox.

- Option-click between two layers in the layers palette.

- Choose Group with Previous from the Layer Menu.

- Type Command-G.

Changing the Stacking Order. When changing the stacking order of the layers, you'll want to be careful; otherwise, you might accidentally ungroup some layers. If you move one of the grouped layers above a layer that is not part of the group, you'll be ungrouping that layer. Or if you move an ungrouped layer between two layers that are grouped, then it will become part of that group. If you move the bottom layer of a group above or below a layer that is not part of the group, all the layers in the group will move with it.

Now that you know how to group your layers, let's take a look at a few of the things you can accomplish by grouping layers.

Photographic Edges. To create a rippled-edge effect, try this out. First, open the photograph you want to apply the



Figure 1. Result of grouping a photo with a type layer. (Original image © 1998 Adobe Systems, Inc.)

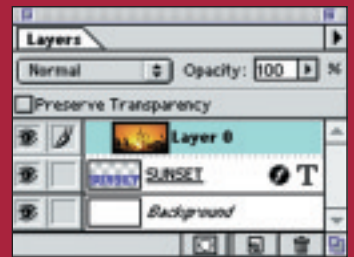


Figure 2. Layers palette view.

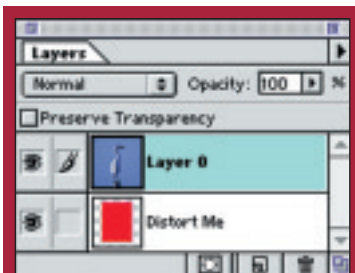


Figure 3. Bright-colored rectangle directly below the photograph.

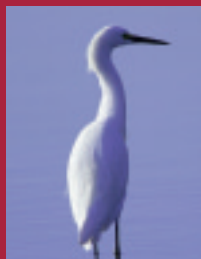


Figure 4. Photograph grouped to red box. (© 1998 Adobe Systems, Inc.)



Figure 5. Result of distorting bright-colored rectangle.

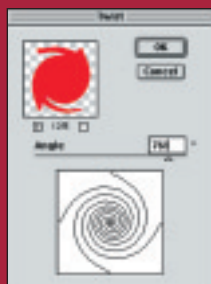


Figure 6. First apply the Twirl filter.



Figure 7. Then apply the Radial Blur filter.

effect to, then create a new layer. Now, make a selection by using the Marquee tool. You are going to have to crop the image a bit in order to achieve a rippled-edge effect, so make sure your selection is a little inside the edge of the photograph. Then fill the selection by choosing Fill from the Edit menu. It doesn't matter what color you fill the selection with. I usually choose a bright color so that I can easily see it (see Figure 3). Next, you'll need to change the stacking order of the layers so the layer that contains the box you just made is under the photograph. You can do this by clicking on the name of the layer and dragging it below the name of the photograph's layer in the Layers palette.

To get the photograph to show up only where the rectangular box is, type Command-G to group the layers (see Figure 4).

Now click on the layer that contains the box. You can distort this box by using any filter you'd like (see Figures 5 to 7). For now, just use one of the filters under the Filter>Distort menu, such as, Ripple, Twirl, or Polar Coordinates. By doing this, you will distort the box you created earlier and because it is grouped to the photograph above it, the edge of the photo will become distorted as well.

Once you're happy with how the edge looks, you might want to add some other effects, such as a black border around its edge. There's a trick for that, too. Click on the layer that contains the distorted rectangle and choose Layer>Layer Effects>Inner Glow. Now click on the color swatch to pick the color you would like to use and set the Mode pop-up menu to Normal. To get the color to appear around the edge of the image only, be sure Edge is chosen at the bottom of the dialog box. Now you can experiment with the Opacity, Blur, and Intensity settings to fine-tune the result. If you are having trouble getting the edge to completely show up, try bringing the Opacity and Intensity settings all the way up to 100%. You don't have to restrict yourself to the Inner Glow effect, so experiment with the other layer effects until you find your favorite.

Grouping Adjustment Layers. Grouping layers can also be helpful when using adjustment layers. An adjustment layer usually affects all the layers that are below it. By grouping an adjustment layer, you can force it to affect only the layers that are within the group. This can be extremely helpful when you want to brighten or darken a single layer and you don't want to make the change permanent.

Limiting Shadows. I use Grouping all the time when I'm creating shadows. Let's say you have some text, and underneath the text is an image of a piece of string, and you want the text to cast a shadow on the string. Once you create a layer that contains a shadow, all you need to do is group it with the string, and then the shadow will show up only where the string is.

Stacking Order Tricks. I occasionally use the grouping feature when I really don't want to restrict where a layer appears. That way I can fool *Photoshop* into doing some tricks. Here's an example: Ordinarily, you can only move one layer at a time up or down in the stack; that is, unless you group some layers together. By grouping multiple layers, you can drag the bottom layer of the group (the one that is underlined) up or down in the stack; and all the layers within the group will also move. This can be immensely helpful when you are working on

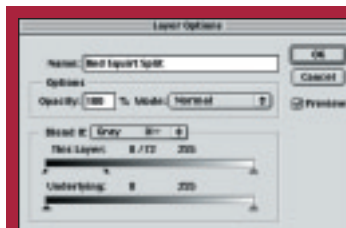


Figure 8. The blending sliders.

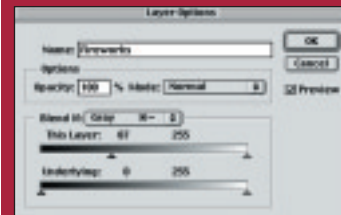


Figure 11. Moving the upper left slider makes the dark areas of the current layer disappear.



Figure 14. Original image. (Courtesy of Nik Willmore)



Figure 17. Original image.



Figure 9. Original unblended image. (Fireworks image © 1998 Corel Corporation; Lake Image © 1998 Adobe Systems, Inc.)



Figure 10. Removing the black sky from the fireworks image.



Figure 12. The edges of the fireworks blend into the underlying image.



Figure 13. Splitting a triangle into halves allows the image to smoothly blend into the underlying image.



Figure 15. The result of removing all white areas by using the blending sliders.



Figure 16. Moving the upper right sliders makes the bright areas of this layer disappear.



Figure 18. Result of blending in the dark parts of the underlying image.

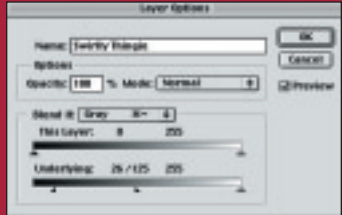


Figure 19. Moving the lower left slider makes the dark areas of the underlying image show up as if they are poking a hole in the active layer.

BLENDING SLIDERS

The blending sliders will allow you to quickly make areas of a layer transparent based on how bright or dark the image appears. You'll find the blending sliders by double-clicking a layer. If you are working on a Type or Adjustment layer, choose Layer Options from the side menu of the Layers palette instead. The blending sliders are at the bottom of the Layer Options dialog box, shown in *Figure 8*. The first thing you'll notice is that there are two sets of sliders. One is labeled "This Layer" and the other is labeled "Underlying." The slider called This Layer will make areas of the active layer disappear. The slider labeled Underlying deals with all the layers underneath the layer that was double-clicked. This slider will make parts of the underlying image show up as if a hole was punched through the current layer.

This Layer Sliders. First, let's take a look at the topmost sliders. If you move the left slider towards the middle, the dark areas of the image will start to disappear (all the shades that are to the left of the slider will disappear). This slider can be a great help when trying to remove the background from fireworks or lightning. The only problem is, once you get the background to disappear, the edges of the fireworks will have hard, jagged edges. *See Figures 9 to 11.*

To remedy this situation, all you have to do is split the slider into two pieces by Option-dragging on its right edge. When this slider is split into two parts, the shades of gray that are between the halves will become partially transparent and blend into the underlying image (*see Figures 12 and 13*). The shades close to the left half of the slider will be almost completely transparent, and the shades near the right half will be almost completely opaque.

When you move the right slider, you will be making the bright areas of the image disappear (all the shades of gray to the right of the slider will disappear). This slider can be useful when you come across a multi-colored logo that needs to be removed from its white background. Just like the upper left slider, you can split this slider into two halves by Option-dragging its left edge. *See Figures 14 to 16.*

Underlying Sliders. By moving these two sliders, you'll be able to make areas of the underlying image show up as if they were creating a hole in the layer you double-clicked. These sliders are useful when you don't want a layer to completely obstruct the view of the underlying image. I might use this to reveal some of the texture in the underlying image. And, just like the top sliders, you can Option-click to separate the sliders into two parts. *See Figures 17 to 19.*

Understanding the Numbers. The numbers that appear above the sliders indicate the exact location of each slider. If you haven't split any of the sliders, then there should be a total of four numbers (one for each slider). When you split one of the sliders into two parts, you'll see one number for each half of the slider. These numbers use the same num-

complicated images that contain dozens of layers.

Once you have changed the stacking order, you'll probably need to ungroup the layers; that is, unless you really want to restrict where they are visible. To quickly ungroup a series of layers, click on the bottom-most layer of the group and choose Layer>Ungroup.



Figure 24. The Clouds filter is the starting point for creating artificial lightning.



Figure 25. Result of applying Difference Clouds, then choosing Image>Adjust>Invert.



Figure 26. Result of removing all the dark information. (© 1998 PhotoDisc)

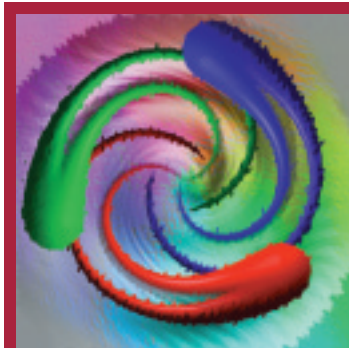


Figure 20. Original image.

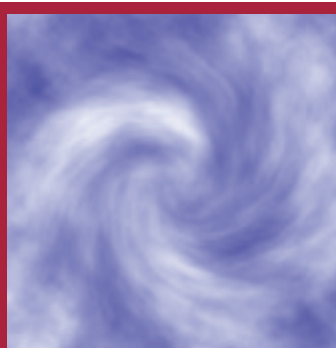


Figure 21. After creating a new layer and applying the Clouds and Twirl filters.

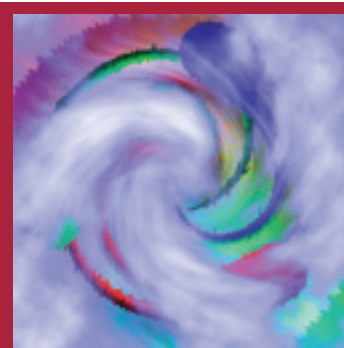


Figure 22. Result of discarding the dark area of the clouds by using the blending sliders.

NOTE

In the Layers palette, the background image is always stuck at the bottom of the palette; you can't move another layer below it in the layers stack. But you can always double-click on the background image and change its name, which will convert it into a normal layer. Once it's a layer, you can change its stacking order, or drag a layer below it.

NOTE

To quickly group multiple layers together, link the layers by clicking and dragging in the column just to the left of their preview icons in the Layers palette, then choose Group Linked from the Layers palette. After you have grouped the layers, you can drag across the link symbols to turn them off.

NOTE

To convert between percentages and the 0-255 numbering system, open the Color palette and choose Grayscale slider from its side menu and enter the percentage you would like to use. Then to convert to the 0-255 numbering system, just choose RGB sliders from the side menu of the palette.

bering system that is used in the Levels dialog box.

If you move the upper left slider until its number changes to 166, for example, you'll have made all the shades darker than 35% gray on that layer disappear. It would be much easier if Adobe would allow us to switch between percentages and the 0-255 numbering system like you can when using the Curves dialog box.

Using Color Channels. If you leave the pop-up menu at the top of the blending slider area set to gray, then *Photoshop* will ignore the colors in your document and just analyze the brightness of the image (it will be as if the image were in Grayscale mode). By changing this menu, you will be telling *Photoshop* to look at the information in the individ-

ual color channels to determine which areas should be visible. If you have a document that is in CMYK mode and you change the pop-up menu to cyan and move the upper right slider to 26, for example, you'll make all areas of the layer that contain 10% or less cyan disappear. This can be useful when you want to remove a background that contains one dominant color.

Choosing the best channel from this pop-up menu usually involves a lot of trial and error. Because of that, I'll show you how I usually figure out which color would be most effective for different images.

First of all, if the color you would like to work with is one of the components of your image (red, green, or blue in RGB mode), then the choice is pretty straightforward — to work on someone's blue eyes, just work on the blue channel. But what if you want to work on an area that is yellow and your image is in RGB mode? Well, to find out, I usually hold down the Command key and press the number keys on my keyboard (1-3 for RGB mode, 1-4 for CMYK mode); this will display the different color channels. You'll want to look for the channel that separates the area you're interested in from the areas surrounding it. Once you've found the best channel, glance up at the top of your document and you'll see the name of the channel you are viewing right next to the name of the document. The name of

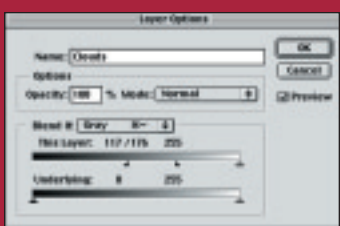


Figure 23. Settings used on preceding image.

the channel that looks best will be the choice you'll want to choose from the pop-up menu in the Layer Options dialog box.

Now that you have a general feeling for how the blending sliders work, let's take a look at some of the things we can do with them.

Enhancing Clouds. When you choose Filter>Render>Clouds, you'll get great-looking clouds, but there is one problem — you can't see through them.

You'll probably want to see through the dark parts of the clouds, so double-click the name of the clouds layer. By moving the upper left slider in, you're going to make the dark parts of the clouds disappear so you can see the underlying image. To make the edges of the clouds blend into the underlying image, hold down the Option key and split the upper left slider into two parts. Now by experimenting with the halves of the slider, you'll be able to create the look of fog, faint clouds, or dense clouds. See Figures 20 to 23.

Homemade Lightning. If you want to play Zeus and create your own lightning, you'll need to start with some clouds; so first create a new layer, then reset your foreground and background colors to their default colors. Next, go up to the Filter menu and choose Render>Clouds. This will give you clouds, but it won't look anything like lightning, as Figure 24 reveals.

To get closer to something that resembles lightning, go back up to the filter menu, and choose Render>Difference Clouds. Then go to the Image menu and choose Adjust>

Invert. This should get you a little bit closer to lightning, but we still have a few steps before it looks electric (see Figure 25).

If you remove all the dark information from this image, it might resemble lightning. So, double-click the layer and pull in the upper right slider. You'll want to hold down the Option key and split the slider into two pieces. Move the right half of the slider all the way to the right edge, as far as you can move it. Then grab the left edge of the slider and start moving it to the right until the lightning looks appropriate for the image, as in Figure 26. You'll have to move it almost all the way across.

Making the Changes Permanent. The problem with the blending sliders is that they are just settings attached to a layer, and *Photoshop* does not provide an obvious way to permanently apply the changes. Well, if you've used only the top sliders, then there is an easy way to get *Photoshop* to permanently delete the hidden areas. To do this, create a brand-new empty layer, and then move that empty layer underneath the layer that is using the blending sliders. Then all you have to do is merge those two layers. To do that, click on the layer that is using the blending sliders, go to the side menu on the Layers palette, and choose Merge Down. By doing this, *Photoshop* will permanently delete the areas that were transparent. This can be nice if your client requested the layered file, but you don't want them to know how you did it! *

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NEXT ISSUE: IMAGE BLENDING PART 2, LAYER MASKS



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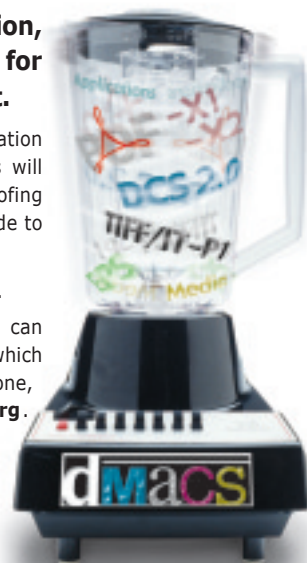
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