

LEVEL OF DIFFICULTY: Moderate

TITLE: Adding Still Elements To Video Clips

SUB TITLE: Using Photoshop and Aftereffects Together

INTRODUCTION

With the techniques covered in this tutorial you will be able to produce two classic visual effects. First, I'll show you how to make animated titles by importing Photoshop files into Aftereffects. Next we'll add new scenic elements to some video footage, again using Photoshop. This technique will allow you to add or remove elements like tree or buildings from a shot.

These techniques, especially the one we will use to alter the scene, are common to most visual effects.

Watch the classic old 1933 version of King Kong. Willis O'Brien, the stop motion genius that animated Kong, pioneered the art of extending, or completely fabricating, scenery. Layering several elements painted on glass in front his puppets and rear projected footage allowed O'Brien and RKO's visual effects artist Linwood Dunn to create King Kong's fantastic jungle scenes. It is said that these set-ups could be many feet deep.

ABOUT THE AUTHOR

Anthony Dunningan is currently working as a research scientist and resident artist at FX Palo Alto Laboratory, a silicon valley based research lab. Anthony has produced illustrations, user interfaces, videos, multimedia presentations, printed pieces and websites for a number of organizations including: Rock & Roll Hall of Fame + Museum, United States Olympic Committee (USOC), Key Bank, Eaton Corporation, General Electric, JP Morgan and the Coors Brewing Company. For more information, including an on-line portfolio visit www.dunningan.net.

Part 1: Making Title Graphics In Photoshop

1. Getting Started

Create a new document in Photoshop. Since our final video is going to be rendered as broadcast quality NTSC video, choose "NTSC DV 720x480 (with guides)" from the "presets" menu. Watch those guides! The outer guides mark the action safe area while the inner guides mark the title safe area. Anything that falls outside the guides may not show up if you decide to burn this video to DVD and watch it on your television. Finally, keep in mind that this will create a file with a pixel aspect ratio of .9. This isn't too important right now, just keep it in mind.

2. Make Stills

Take a look at the image I created. There are two bits of text and a rule line. Some of the text has a layer mask applied that makes it seem to fade away. Aftereffects will import this perfectly. Each element in the design is on a separate layer. Save three new Photoshop files, each file should have only one of the three layers visible. Once the files are imported into Aftereffects all of the graphical elements will be properly aligned to each other, just as they were in the original Photoshop file. By importing each element of the design separately we have gained the ability to animate them independently from each other.

3. Aftereffects

Open Aftereffects and import the three files you just created. I generally drag the files into the project pane. Use the file menu if you prefer. All of the files should import properly, to be sure check them by selecting each file and then selecting "Interpret Footage" in the "File" pull-down menu. Pay special attention to the pixel aspect ration, it should be .9.

4. New Composition

Create a new composition by selecting “New Composition” in the “Composition” pull-down menu or by clicking on the “New Composition” icon. Make sure that the composition settings match those of the Photoshop files that you created (NTSC DV 720x480). At this point there should be 4 items in the project pane; three Photoshop files and the composition you just created. Drag the icons for the Photoshop files onto the icon for the new composition. Your original design should appear completely reassembled in the composition window (the stage if you will).

5. Key Frames

You will need to create some key frames for each layer in your composition; this is accomplished in the Timeline window. We will be adjusting both the position and the opacity of the three elements at specific key frames to create this animation. Aftereffects will fill in the missing frames of animation between the key frames. This is called tweening. In this example the horizontal rule line fades in and the text seems to appear out of it. To make the rule line fade in, simply create two key frames that are approximately 30 frames (one second) apart. In the first key frame set the opacity to 0% in the second key frame set the opacity to 100%. When the clip is played back the line will appear to fade in. Create two more key frames and adjust their opacity to make the line fade out.

6. More Animation

Motion is animated in much the same way as the fading effect. In this example the bottom text is initially positioned above the rule line and the text on top should start below it. On a later key frame the graphics are moved to their final position. This effect isn't complete until we add masks and adjust their position so that the text is hidden until it emerges from the rule line.

7. Effects

For a little extra pizzazz lets add a cool lighting effect. Create a new composition by dragging this current composition onto the “New Composition” icon in the project window. This new composition will have the first composition nested within it. This allows us to apply a lighting effect called shine (available at www.trapcode.com) to the entire animation. To improve legibility I'll add another copy of the original composition to this new composition. Now the shine effect appears to be emanating from behind the graphic elements.

8. Render the Animation!

This is the best part. Choose “Make Movie” from the “Composition” pull-down menu. Render the file at 1/4 resolution. Are things moving too quickly or too slowly? Is everything lined up correctly? Make any necessary tweaks and render the file again. Once you're happy with the animation move on to part two.

Part 2: Extending The Background Of A Scene

1. Film the Live Elements

Since you probably don't have access to any motion control equipment put your video camera on tripod and “lock it off”. Basically, don't move the video camera. In this tutorial we are going to extend the background of the video clip you just shot beyond its original frame size. This will allow us to add simulated camera movements like pans and zooms.

2. Filming Tips

It is helpful if there isn't lots of extra motion in the “live area” of the scene. The elements we are adding are going to be static so we don't want them to be overly obvious as they butt up against a bustling crowd or a splashing fountain. I've chosen to shoot my video clip in HD; this isn't necessary as the final video is being produced in the older broadcast format(with a much smaller frame size than HD). By shooting in HD I've given myself more pixels to work with when I begin to add elements to the background.

3. Digitize Video

As far as digitizing the video clip goes, well I'm afraid that you are on your own. I use Final Cut Pro but there are several freeware and commercial applications that will work just as well. Make sure that whatever method you end up using yields excellent quality video. Clean video is much easier to work with.

4. Export A Still

You can open your digitized clip in pretty much any video editing program and render a still; or you can just open the file in QuickTime Pro and export a still from there. However you get it, open the still in Photoshop.

5. Work With The Still

What could you add to it to make the scene look more interesting, more fantastic? Do you need to add a product or remove a building? You can do anything that doesn't interfere with any motion in the video clip. Take a look at the still I've played around with for some ideas. I used elements I created in 3d as well as elements from photos I took while hiking in California's bay area. Have fun with this. Be sure to significantly enlarge the canvas size -- the more it is enlarged the more freedom there is to "pan" across it later. In the end you'll create a background with a hole in it for the video to show through.

6. Back To Aftereffects

Open the animated titles project you created earlier, Import your video clip and new background. Create a composition large enough to contain the new background without cropping it. Place the new background image in a layer and then place the video clip into a layer below it. Align the video so it is properly registered to the modified background. You may need to reduce the magnification a bit to see everything.

7. Add motion.

Ok, almost done. Create yet another new composition set the stage size to 800 x 600. Place the oversized composition into this new one. Use "motion", "scale" and key frames to pan and zoom across the clip. This is the same technique we used to animate the titles.

8. The final composition!

Create one more composition (NTSC DV 720x480). Place the composition that you created in Step 7 into this new one. Apply the "Optics Compensation" filter. Adjust the "field of view" to about 45-50. You want to see some lens distortion but you don't want to see any black corners (you'll know it when you see it). I'm also going to apply another Trapcode filter, the "Star Filter". This filter will add a subtle lighting effect that, when combined with the "Optics Compensation" filter, will serve to unify the final image. Finally, add the animated titles composition you made in part one of this tutorial to the beginning of this one. Use "opacity" and key frames to fade the title away after it builds on screen.

8.5. Have Fun

As you can see from step 8 the more effects you apply to the overall composition the more it tends to unify the final shot. Now this can be taken too far (way too far in fact). In this step I'll add some effects that make the clip appear to be old film footage. I added camera shake, film grain and all sorts of other effects. Maybe you will decide to make your video black and white, or more digital looking with all sorts of futuristic graphic overlays. You may even decide to leave the footage alone (probably your best bet).

9. Render the final video clip!

Choose "Make Movie" from the "Composition" pull-down menu. Render the file at 1/4 resolution. How does everything look? Make any necessary tweaks and render the file again. Once you're happy with the look of the clip adjust the render settings to produce a good quality video clip (full frame

h.264 works well).

10. Done!

Well, that's it. These techniques can be used to create all sorts of other effects. Adobe has done a wonderful job making two of their most powerful applications work together.