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THE EXPRESSION CONTROLS EFFECTS

The Expression Controls category of effects contains what is perhaps the oddest group of effects. Other than the effects in the Audio category, most effects make some kind of visual change. The Expression Controls effects are used to control expressions, which are used to control the values of layer properties. In effect, they control the controllers.

One of the big limitations of expressions is that they cannot be animated. Let's say you wanted to simulate an earthquake by applying a Wiggle expression to the Point of Interest value on your camera layer. Once you applied the expression, the wiggling would last for the entire duration of the layer (or, the composition, whichever ended first). Enter the Expression Controls effects, which can be used in conjunction with expressions to create animations. In this case, we could create a null layer and apply the camera controlling expression control effect to the null. As we'll also see, these Expression Control effects can also be used simply as a visual controller for expressions to make them easier to work with.

Because all the Expression Controls effects are applied and function in a similar manner, let's take a look at how expressions can be controlled with them. Then we'll look briefly at what each Expression Controls effect can be used for.

Create a new After Effects project, then a new composition at the NSTC DV size. Then create a new solid (any color) at the comp size. Go to the Animation menu at the top of the interface and select Apply Animation Preset. Navigate to the Animation Presets folder in the exercise files that came with this book and select the chads fire—campfire.ffx preset. This is a simple fire pattern created with the Fractal Noise effect (Chapter 12) and colored with Colorama (Chapter 6) (Fig. 8.1).

In the Timeline panel, select the solid layer and press UU (that's the letter U two times fast). This will reveal all the properties



Figure 8.1 The chads fire, campfire animation preset.

that have been altered from their default settings. Look for the Effects>Fractal Noise>Brightness property. Hold the Alt(Win)/Opt(Mac) key and click the stopwatch for the Brightness property. A text field will open up in the Timeline panel for you to type in an expression. Completely replacing all existing text in this area, type `wiggle(5, 10)`. This will create random brightness values within 10 units of the existing value for the Brightness property five times every second. This will create an organic flicker of brightness (Fig. 8.2).

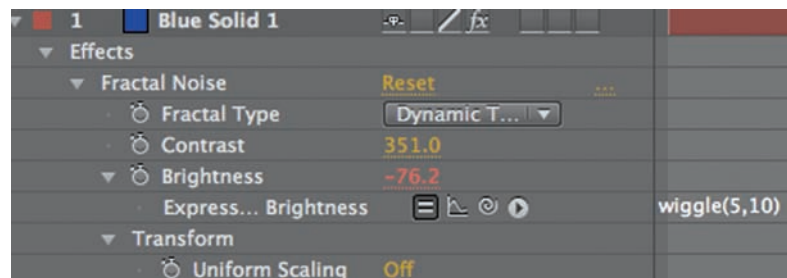


Figure 8.2 The wiggle expression applied to the Brightness property.

So, the results look great, but what if we wanted to increase the intensity of the flicker over time? For this, we must turn to expression controls.

Apply the Slider Control effect (in the Expression Controls area) to this solid layer. Click in your expression once again to make the text editable. Then, as if in a text editing application like Microsoft Word, click and drag to highlight (select) the second number, 10 (Fig. 8.3).

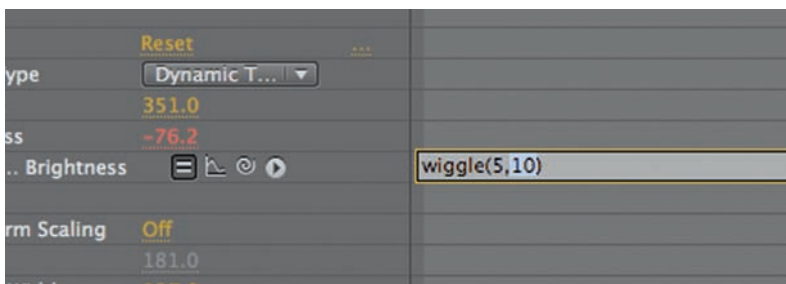


Figure 8.3 Select the number 10, the second number in the wiggle expression.

With the number 10 selected, click and drag the pickwhip in the Timeline panel to the Slider property of the Slider Control in the Effect Controls panel and release the mouse (Fig. 8.4).

Now, the Slider value of the Slider Control effect is controlling the amount of variation in the brightness wiggle. We can set keyframes (or even other expressions!) to control the wiggle

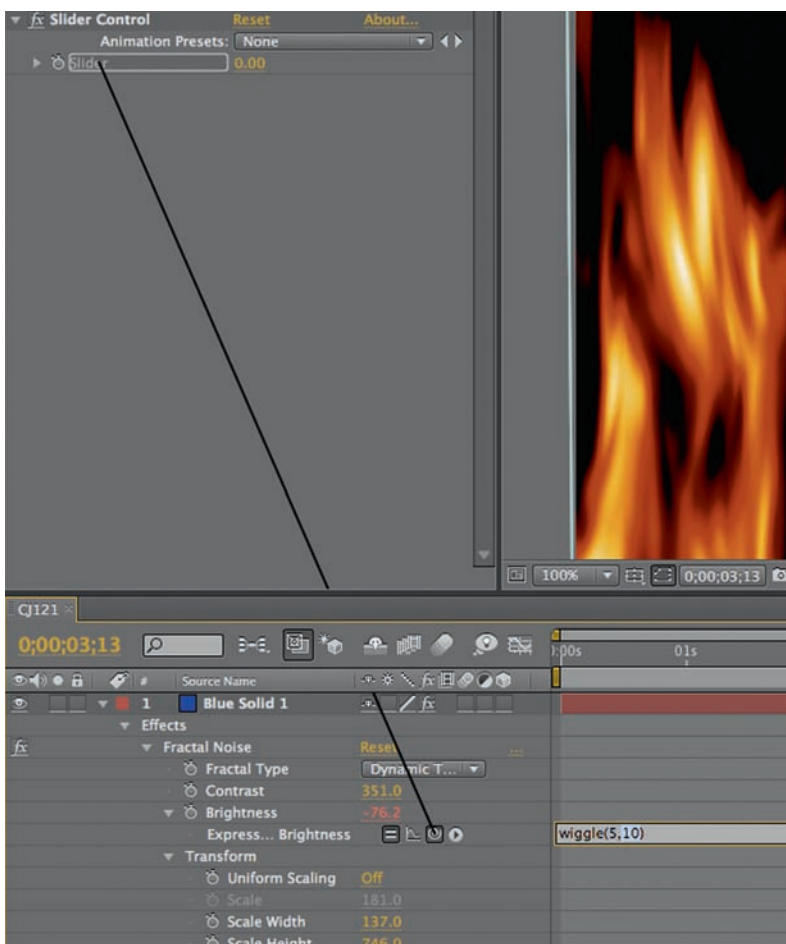


Figure 8.4 With the number selected, click and drag the pickwhip to the Slider property in the Effect Controls panel.

Naming Effects

If you plan on using Expression Control effects, it's a really good idea to rename the effect so you can instantly discern which property it is controlling.

expression because of the expression controller effect we've added here.

As you can probably tell, there's really nothing special about this Slider Control effect. It's just a slider that does nothing. It really doesn't serve any other purpose, other than to control other behaviors in After Effects.

This example shows a simple effect with one simple Slider parameter. But what if you wanted to control the Evolution property in Fractal Noise, or rotation, or some other property that uses revolutions and degrees? A simple slider wouldn't be the best controller in that case. For that purpose, you'd need a controller that used revolutions and degrees. And this is why there are several effects in the Expression Controls category. Let's take a glance at the nature and purpose of each controller.

The Angle Control Effect

The Angle Control effect is for controlling properties with angle controls. It has degrees and can keep track of the number of complete revolutions (Fig. 8.5).



Figure 8.5 The Angle Control effect.

The Checkbox Control Effect

The Checkbox Control effect is for controlling effects with an on/off switch, such as Invert (Fig. 8.6).

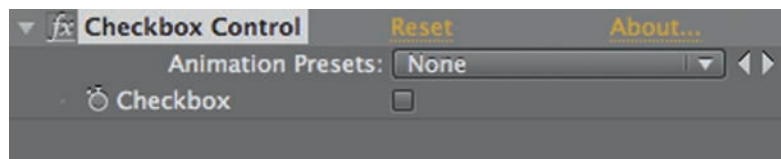


Figure 8.6 The Checkbox Control effect.

The Color Control Effect

The Color Control effect allows you to select and animate the color change of a color swatch. This can be used to control the change of the color of multiple properties at once (Fig. 8.7).