reviews

Particular

3D Plug-In

Trapcode, $299

BY MATT SILVERMAN

right:
These two frames from a *Got Milk?* TV spot show a Before and After picture of a recent project where I utilized Trapcode Particular. When the ad agency couldn't get an establishing shot from a crew in Russia, it turned to Phoenix Edit to create a 3D matte painting of snowy Russia. Phoenix started with a rainy still photo of Chicago, treated it to look like night by darkening the image and adding lights, added the Russian Basilica, then did a 3D camera push using Camera Mapping. The final composite wasdone in After Effects using Particular for the falling CG snow.

SCORE

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PROS
True 3D particle system plug-in for Adobe After Effects. Extensive HTML help. Any layer can be a custom particle. Sixteen-bit support. Real-time previews.

CONS
Two-layer limit for obstruction. No way to shape a particle cloud using masks without clipping.

BOTTOM LINE
Anyone needing to do particle effects in Adobe After Effects will find Particular to be their new favorite plug-in.

SYSTEM REQUIREMENTS
Adobe After Effects 6.0 or higher.

Particles, particles, particles. They are all the rage in Hollywood big-budget blockbuster films, effects-intensive TV spots, and cutting-edge motion graphics design. Trapcode Particular (www.trapcode.com) is an amazing leap forward for anyone needing to create particles in Adobe After Effects.

A particle system is generally used in place of hand-keyframing many elements at the same time. For example, if a shot requires a snowstorm, instead of keyframing each snowflake's position, a particle system can be used to emit a single snowflake as multiple particles. This allows the artist to emit thousands (or millions) of snowflake particles automatically, letting the computer control how the particles move and interact. Combined with other effects, these particle systems can create everything from smoke trails on the backs of jets, to streams of liquid, to dust swirling around in an angry dervish in the next natural disaster movie. Traditionally these types of particle effects have been done in 3D applications to achieve maximum control, but over the past few years, desktop 2D compositing applications such as Adobe After Effects and Discreet combustion have made great strides in their ability to create particle systems. Trapcode Particular is one of the latest particle plug-ins for Adobe After Effects.

In Particular
So why should Particular be a part of your After Effects tool set? Although it's a 1.0 version, Trapcode really hit one out of the park. The feature list is much deeper than 45 preset options, layer interactivity, and real-time previews. Particular is fully aware of the 3D world space built into After Effects, can utilize its own motion blur independent of your composition's settings, and has included an Aux System that produces amazing trails behind emitted particles by emitting more particles. The versatility, realism, and attention to detail help set it apart from other existing particle generators available.

The included presets give you a quick understanding of what is possible using the Particular system. They are broken into five categories to help you get started: Graphical/Organic, Explosions, Smoke/ Trails, Natural, and Wipes. Once you begin to play with the presets and tweak the settings, you can understand the depth of this plug-in and understand the potential for creating textural animation elements or adding the finishing touches to your compositions. This can all be done without rendering a single frame of the composite.

Particular's real-time preview is built into the Effect Controls window and gives you a quick way of experimenting with the settings to accurately predict what the animation will look like when you do decide to push the render button. You have a couple of different options for previewing your settings. By clicking in

Adjustment Layer 1 • Effect Controls

the preview window and moving the mouse, you can orbit around the emitter point to see how it will look from different angles. By Shift-clicking, you can interactively move the mouse and the emitter will follow your mouse movements. Or you can check the preview camera button and the preview will incorporate any camera moves you have added to the active scene camera right into the preview.

Particular's motion blur allows all of the same control you would find in traditional motion blur settings, but adds its own twist. The motion blur will add in particles to help smooth out the animation instead of using multiframe blending. The upside of this is the blurs look realistic and are based on the motion vectors rather than hacking multiple frames together. The downside is the renders use more memory.

The movement of particles in depth helps sell the sense of true 3D. Particular utilizes the built-in After Effects 3D space like no other particle system. X-, Y-, and Z-space can be controlled within the Particular UI, or the emitter can be attached to a light (similar to Discreet flame) or another layer. Using a layer or light gives you incredible control over your particles and makes for some remarkable interplay with other composition elements. This adds visual placement and easing cues that are missing from the standard effects controls. If you use the Particular interface to try and control the Z-depth, you seem to be limited to a distance of 30,000 units in either positive or negative, but that isn't an issue if you're using lights or layers to control the emitter.

When Particular uses a layer as the emitter, trails of particles can be left behind in random patterns or grids that inherit the color of the source layer. For example, if a multicolor logo is animated along a path, the particles emitted from the logo will be colorized to match the

points from which they were emitted. Particular takes this one step farther when dealing with alpha channels and emitters. Depending on the value of the emission point's lightness, the rotation, velocity, or scale can be affected. This creates very interesting animations. Particular can also emit particles from particles with its Aux System. This creates complex-looking animations, but it also adds considerably to render times.

Conclusions

Overall, Particular is a fantastic 3D particle system. The only drawbacks are the two-object limit for obstructions and bounce objects, its lack of a way to define a boundary shape using a mask, and the fact that there's no way to set objects of influence. The two-object limit can be a drag if you're trying to get the particles to interplay with multiple layers within a composite. Using a mask to create a boundary shape is more understandable because it would be fairly difficult to define a 3D boundary using 2D objects. Masks seem to have no effect on the particles when assigned to the parent layer. The lack of objects of influence is a minor omission for a 1.0 release, but would have allowed for particles to be attracted or repelled from layers to produce very dynamic simulations.

Particular is by far the best particle system available for Adobe After Effects. The ease of use, real-time previews, and near seamless integration in the After Effects 3D space make this a must-have for anyone using particles in their work. If gratuitous eye candy is needed, Particular can definitely handle it. ∎

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