TUTORIALS

TECHNIQUES / TIPS / TRADE SECRETS

BLENDER

Furry tale

In the first of our masterclasses in free 3D software, we explore Blender 2.46's new fur tools, using actual assets from the movie Big Buck Bunny

BY ANDREAS GORALCZYK

The main goal behind *Big Buck Bunny* was to enhance and expand *Blender's* existing fur-creation toolkit. This open-source movie project, which I had the privilege of working on in Amsterdam from October 2007 until April 2008, was also created to improve character animation tools, particularly for cartoon-like motion and deformation.

All five leading characters in *Big Buck Bunny* have either fur or feathers. Often, scenes showcase multiple characters, each with millions of hairs, at once, making the project an extraordinary challenge. This tutorial is intended to provide an overview of the new fur-editing tools in *Blender 2.46*, the first stable public release of the software in which they have been incorporated, using the cute, fluffy chinchilla from the film.

Since its previous release, *Blender's* particle and fur generation system has been completely rewritten. *Blender 2.46* offers a variety of features for creating smoke, rain, explosions, dust, swarms, crowds, leaves, debris, feathers and, of course, fur. Now you can not only comb, cut and grow hair with ease, but influence it using gravity, wind and other forces.

The first step in the process is to create a set of lower-resolution 'parent particles', which can be easily modified and shaped by hand. For each parent, any given number of children substitutes can be generated. These child particles can simply follow their parents, but also form braids, get frizzy, twist around or curl. Hair is rendered using the new Strand primitive type in the *Blender* internal renderer. Using this method, managing and rendering fur is extremely fast and efficient.

You'll begin with chinchilla_stage01.blend from this issue's CD. The file contains a naked chinchilla with skin materials and textures. It's your job to give him a warm, fluffy fur coat. Your set-up will be significantly simpler than the one we created for the movie. Because of file size restrictions, the rig and animation controls could not be included on the CD. However, you can find the final character, ready to animate and to play with, along with many other assets in the *Big Buck Bunny* production files, at **www.bigbuckbunny.org**.

Andreas Goralczyk is a freelance CG illustrator, and was art director of the open-source movie productions *Elephants Dream* and *Big Buck Bunny*
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FACTFILE

FOR
Blender 2.46

DIFFICULTY
Intermediate

TIME TAKEN
2 hours

ON THE CD
- *Blender 2.46* for Windows
- Scene files
- Full-size screenshots

ALSO REQUIRED
N/A