

BIG Animation
(www.biganimation.com)
Yerawada, Pune, India

Autodesk® Flame®
Autodesk® Maya®
Autodesk® Smoke®

The best animation talent in India has grown up using Maya, so by standardizing on Maya as our 3D platform we were able to recruit the industry's best artists. Maya is our lifeline for production.

—Ashish Kulkarni
CEO
Big Animation

BIG Animation Brings Little Krishna Cartoon Series to Screen with Autodesk Software



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Summary

Little Krishna is a magical new children's television series produced by India's BIG Animation, a Reliance ADAG Company. The company used Autodesk® Maya® software to help animate the show's colorful computer-generated worlds, and Autodesk® Smoke® software and Autodesk® Flame® software for editing, finishing, visual effects, color grading and final output. Little Krishna is a joint production between the India Heritage Foundation and BIG Animation, and marks the first time that Nick International (Nickelodeon) has acquired a television series produced in India.

Little Krishna is premised on legends passed down from generation to generation that feature the beloved blue-skinned deity between the ages of five and ten years old. The 5,000-year old tales remain true to their historic storylines but are retold in a contemporary format for cartoon viewing audiences. In the series, Krishna is an ideal son and friend, legendary prankster and folk hero intent on battling evil demons. BIG Animation relied on its Maya-centric pipeline to efficiently build, animate and manage the signature characters and detailed scenery that make this program unique.

The Challenge

The ambitious series features upwards of 300 characters, centered around Krishna, his group of five friends, a monkey and a calf. Each episode also showcases Krishna's parents, assorted villagers and a demon character who plays the foil to Krishna and his pack.

In addition to large numbers of characters, the program's lush environments also play a role in the series, as each episode takes place in real locations that exist today in Northern India. It was essential for the filmmakers to convey not only the endearing nature of Krishna in the physical embodiment of the animated character, but also the authentic colors, flora and fauna of the Vraj region.

To add further complexity to the project, every time Krishna plays his flute, the surrounding animals, trees and plants react, move and sway to the music. On top of that, each episode includes extensive secondary animation in the way of flowing garments and jewelry adorning Krishna and the other characters.

Finally, since the turnaround time for delivery of the 13-episodes was tight, the production required a large team of highly skilled animators that could hit the ground running immediately and work seamlessly across departments, from modeling to animation, texturing, lighting, compositing and color grading.

Autodesk®

The Solution

In order to meet its project and talent demands, BIG Animation chose Autodesk Maya as its software solution of choice. “The best animation talent in India has grown up using Maya, so by standardizing on Maya as our 3D platform we were able to recruit the industry’s best artists. Maya is our lifeline for production,” explained Ashish Kulkarni, CEO, Big Animation. “The pipeline support we’ve received from Autodesk is truly amazing, which is one of the main reasons we’ve stuck with Maya and Autodesk finishing and visual effects tools Smoke and Flame.”

Big Animation relied on its Maya-centric pipeline to efficiently build, animate and manage the signature characters and detailed scenery that make this program so unique. “The flexible architecture in Maya enabled us to overcome the challenges posed by the large amounts of facial animation, secondary cloth and jewelry animation, and complex particle and environmental simulations such as water, fire and tornadoes that appear in the series,” continued Kulkarni.

“We used Maya nCloth for clothing and the Muscle system for rigging the many characters that appear in each episode. The Geometry Point Cache system also helped to dramatically reduce time and errors and allowed the lighting artists to work with files that had surface data already incorporated into animations. Python scripting also opened up a new level of interactivity and allowed us the ability to script and develop our own crowd simulation tools.”

The Results

Using Maya enabled tight integration between texturing and lighting teams, helping to overcome the challenges posed by the large amounts of facial animation, secondary cloth and jewelry animation and environmental fire, tornado and water simulations that appear in these episodes.

The texturing team was also able to use Maya very effectively to help create characters that had the appearance of fur without actually simulating render-intensive fur. They created textures that looked like the fur of cows, tigers and monkeys by hand-painting hairs onto texture maps. Kulkarni explains, “The end result is very effective. When you watch Little Krishna, the characters have a furry appearance. The interoperability between Photoshop and Maya and the ability to use mental ray to evaluate the process while it was in progress was paramount to the success of this effect. We also relied heavily on using the quick preview performance of our Maya-enabled pipeline to move back and forth between scenes so the director could provide notes, request revisions and iterations and even test out new looks.”

The Little Krishna design team at BIG Animation thoroughly researched stylistic aspects of the land of ‘Vraj’ in Northern India, where these stories were situated thousands years ago.

“We were very mindful of capturing the vegetation and color palette that is unique to Northern India in these sequences,” said Kulkarni. The Color Warper and Master Keyer in Smoke were valuable tools in providing us with accurate color production and delivery. Flame was also a key finishing tool and the seamless metadata exchange between Smoke and Final Cut Pro using Wire and Open XML interchange also served us well in post on this show”.

Big Animation completed the series from ideation to script, and script to screen in a total of three and a half years with a team that grew from 45 at inception to up to 280 at its peak. The series debuted recently on the Nick Channel, and is currently one of the two top-rated children’s programs in India. Big Animation is based in Pune, India in a 60,000-square-foot facility and in addition to developing original animated content, also serves as an outsourced animation vendor to US film and television clientele.



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