SHORT CUTS

CREATING AN APPEALING MASCOT AND WEB SERIES

Eric M. Miller and his team explain how they devised and created a series of animated shorts centred around a Minion-inspired character, Bink

ERIC M. MILLER
Eric is the CEO of Eric Miller Animation Studios. He founded the animation company in 2014, after a career at DreamWorks.
www.milleranimation.com

Bink began with a purpose, rather than the story, says creator, Eric M. Miller. "I knew the framework of what I wanted before I started collaborating with the imaginative writer, Charlie Petrek," he says. "I wanted the short to be high quality, but simple to produce and short form so the studio could afford to make multiple episodes."

Taking influence from the Minion shorts (set in a white environment) and stylistically looking towards Big Hero 6 and The Incredibles, he and Charlie were able to piece together their world.

His creature, Bink is an unknown species who was captured by humans and brought to a testing facility. "I decided to keep each episode very short, so the actual animation is only 30 seconds, plus titles and credits," says Eric. "I wanted to keep it short because people have limited time, and short attention spans. I thought this would improve the chances of people watching it and sharing it."

Animator Scott Raymond and rigger Nico Sanghrajka join Eric in shedding some light on how they made the magic happen to create Bink…

VITAL STATISTICS

TEAM
CEO & executive producer
Eric M. Miller
Story
Charlie Petrek
Animation
Jacob Gardner and Scott Raymond
Character design
Valerio Fabbretti
Surfacing/Grooming
Violette Sacre
Lighting & Look Dev
Graham Cunningham

COUNTRY
US

SOFTWARE
Maya

PRODUCTION TIME
One year

What 3D software did you use?
EM: We primarily used Maya because it works for both animation and VFX. Most artists are familiar with it, and I wanted to use the same software from modelling through lighting to limit the amount of technical support.
NS: For rigging, Maya offers the ability to script certain parts of the rigging in either MEL or Python, which enabled us to rebuild the rig from scratch as changes or updates came up, while at

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the same time keeping the rig clean, robust and easier to debug.

What was the most impressive technical aspect of the project?
NS: In terms of rigging, getting the wraps on the arms and legs to deform properly was the most challenging part. In bigger production houses this is handled by the character FX department or simulated by tech animator as part of their cloth workflow, but here we had to rig it to make sure it behaved properly and did not penetrate with the skin. At the end additional controls were added to allow animation to move the wraps out of the way in the few cases where penetrations could not be avoided. The face rig was also challenging, because it needed to be expressive, but at the same time easy to use for animation. A mix of curves, joints and blendshapes was used to achieve the desired result.
SR: It makes all the difference having professional industry-quality rigs and

models. It's faster to animate and naturally creates more appealing and dynamic poses. You can push the character more. In the end, your animation is only as good as the quality of your assets. Our goal was to not make creative compromises because of technical limitations.

What lessons did you learn?
NS: One thing that we noticed during production was a few parts of the rig behaved differently between different operating systems. The rigging was done in Maya 2015 under OSX, while lookdev and lighting was using Maya 2016 under Windows 10. Certain parts, for example wrap deformers used in the rig, did evaluate differently; that took some time to figure out and find a workaround. In the end we had two rigs (one for OSX and one for Windows) to make sure everything worked on both.

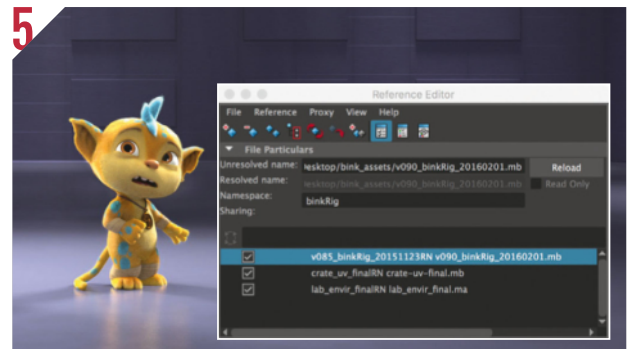FYI *For more information, visit:* **www.milleranimation.com/bink**
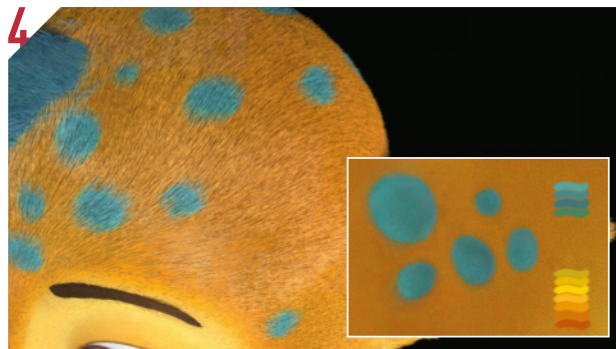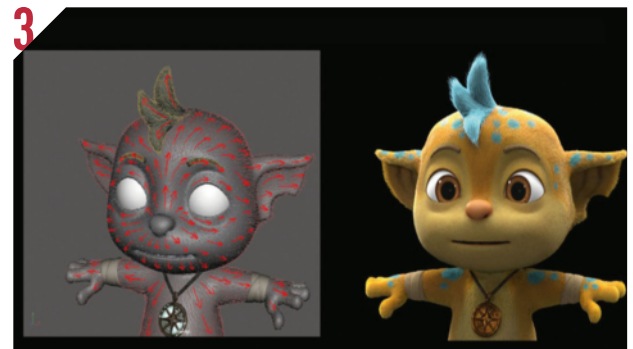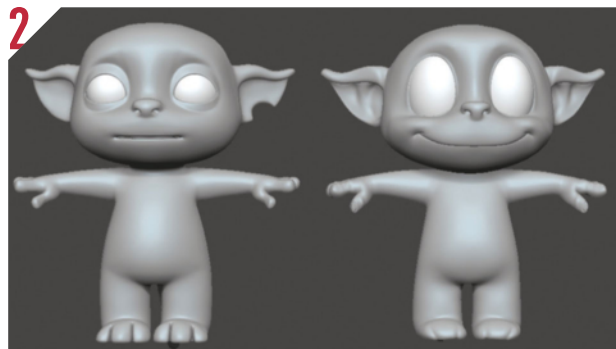
1 Using Photoshop to draw the storyboards and create the animatics helped with efficient communication and fast iterations.

2 Using ZBrush we were able to explore variations of the character that kept the original look of the artwork while not limiting animation.

3 Applying a believable fur direction and adding variation to the fur length, density, width, kink will make the fur feel more natural.

4 We found that painting a 'solid' colour using a variety of analogous colours will make the textures and fur look more vibrant in 3D.

5 Always reference in your assets. If a rig or model updates (and it will), you won't have to spend time copying over all your animation.

FINDING SOLUTIONS TO NIGGLES

Maya 2016 has a new feature, which seems to have turned into a new glitch. It's trying to do parallel evaluation of rigging by default (which speeds up rig calculations). Basic shots ran fine, but using more complex animation and parenting would crash Maya when trying to move a character joint. It's a new enough issue that it took a while to find the cause and solution. To fix it first go to Maya>Preferences. Then under Settings>Animation you'll see an Evaluation settings at the top of the window. Finally, change it from Parallel to DG. Everything performed just as fast as before and shots never crashed again.

6 When you get an appealing expression, save it out of frame range and import it into subsequent shots. You will build up a basic facial library to copy from.

7 Use Maya's .atom file feature to export and import animation. This will easily keep continuity across complicated shots.