

Brown Bag Films
(www.brownbagfilms.com)
Dublin, Ireland

Autodesk® 3ds Max®
Autodesk® Smoke®

3ds Max standard edit
poly functions and its
accessibility to third party
modelling plug-ins proved
very useful.

—James Stacey
Head of 3D
Brown Bag Films

The Essence of *Olivia*

Brown Bag Films brings *Olivia* to life
with Autodesk.



Image courtesy of Brown Bag Films.

Summary

Based upon the collection of loveable children's books by Ian Falconer, *Olivia* follows the antics of a hyperactive piglet which tests her mother pig's patience by belting out songs, drawing on the walls, dancing and, well, acting like a kid. It was over two years ago that Chorion approached Brown Bag Films, the Dublin-based animation studio, to discuss bringing the piglet to life for the small screen. What followed from those conversations was a lot of creativity and hard work to make *Olivia* the animated TV series a reality, using Autodesk® 3ds Max® software and Autodesk® Smoke® software.

With commissions from Milkshake!, the children's programming block on the UK channel FIVE, and Nickelodeon in the US already secured, Brian Gilmore, head of post production at Brown Bag Films, set his team to work. "We spent a full year in production, with a team of 40 people working on the project," says Gilmore. For the project to take off Chorion and Brown Bag Films had to convince author and creator Ian Falconer that they would be able to translate his books and beloved character to the screen. "Eventually it was an animated walking cycle which Ian fell in love with, and it really made him feel that we'd cracked *Olivia*'s personality," recalls Darragh O'Connell, the series director.

Olivia the Pig in 3D

But that wouldn't be the biggest challenge. A decision needed to be made as to whether *Olivia* should be created in 2D or 3D. "We ran tests in 2D to try to replicate the simplicity of the books, which were simple black and white illustrations with an injection of red as the only colour," says O'Connell. "It became clear that to hold the attention of an audience of toddlers we need to brighten up *Olivia*'s surroundings, introduce colour and expand the books to create an entire world for *Olivia* to live in." And so, Brown Bag Films decided that 3D was the way forward.

Using Autodesk 3ds Max 3D modelling, animation and rendering software, *Olivia*'s character and world were brought to life. Camera and layout work was assisted by the 3ds Max software's scene state tool. Because of the large number of camera shots needed for each set, a tool that could change and save object, light and camera properties was needed so the animators could quickly load compositions approved by O'Connell.

When it came to creating *Olivia*, Brown Bag Films found the modelling tools in 3ds Max valuable: "3ds Max standard edit poly functions and its accessibility to third party modelling plug-ins proved very useful," says James Stacey, head of 3D.

Autodesk®

The integration of 3ds Max with mental ray® software also played a vital role in the production, and the extensive range of shaders available helped Brown Bag Films produce high quality graphics within a limited budget and schedule. “One of the main challenges on any 3D animated TV production is maintaining a high standard of lighting and rendering on such a large amount of footage and such a quick turnaround time. Using the mental ray Arc & Design shader gave us the ability to do this in the required timeframe,” adds Stacey.

Bringing it Together

Once all the animated clips were finished they were converted into uncompressed QuickTime® application program files and placed into the Apple® Final Cut Pro® application program for the offline editing, which included sequencing. Once the sequences were checked they were transformed into XML files and soft imported into a Smoke editing and finishing system. The soft import allowed Brown Bag Films to instantly access the exact same sequence which was put together in Final Cut Pro, and the fact that Smoke could cope with large XML files meant that the production could be turned around from offline to online in a matter of hours.

Smoke was also used for larger effects shots and colour correction, as well as small picture fixes. “The ability to jump into Batch mode and the speed at which the soft effects were applied meant that changes could be made very quickly in Smoke,” explains Gilmore. “Smoke allows for better use of a director’s time because last minute changes can be made while the client is in the room and these changes are instantly seen, which means time is not wasted waiting for it to render,” continues Gilmore.



Image courtesy of Brown Bag Films.

When it came to overcoming some lighting challenges Smoke provided a perfect solution: “Towards the end of the post-production we came across a particular sequence in one episode where the continuity of the lighting was off,” says Gilmore. “A retake had led to inconsistency across characters and backgrounds. To overcome this we used Action. Using the Keyer, we separated the characters from the background with relative ease and speed, and then graded them using the colour correction tool. Most importantly we were able to do all this while the client was present.”

The team also found that the new Batch Paint tool in Smoke was a particularly useful addition to the system. “With Batch Paint, a quick paint fix can be done as you’re working and without having to leave Batch,” adds Gilmore.

Olivia is a project which Brown Bag Films is particularly proud of. “We feel that we’ve remained true to the books, but we’ve managed to create something which is visually different, yet manages to remain true to the essence of *Olivia*’s character,” concludes Gilmore.



Image courtesy of Brown Bag Films.

Smoke allows for better use of a director’s time because last minute changes can be made while the client is in the room and these changes are instantly seen, which means time is not wasted waiting for it to render.

—Brian Gilmore
Head of Post Production
Brown Bag Films