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Fun with fur

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Furry Story Article

Furry Story is an anarchic 3D cgi tale of Fredglob the foulmouthed goblin and his wacky human and goblin friends, and is produced by The Brothers Dimm, Magic Stone Productions, and the BBC Northern Ireland. Jason Robertson created Furry Story in the eighties as a children's tale, but later developed the script for a more adult audience. "Aiming the animation at the adult market means we get away with a lot of humour that would be edited out in kids programming," says Robertson. The animation has been described as "ET from Hell" and "Shrek meets Southpark". The story tells of a little girl, Janey, and her escape from feuding parents, and her adventures with her not-so-imaginary goblin friend Fredglob.

The BBC loved the script immediately and decided to take the plunge from live action success into animation. As Executive Producer Gemma McMullan says: "When BBC Northern Ireland read Furry Story we knew it was a project we wanted to become involved in. This was the first time we had awarded funding to an animation project and felt the team involved could produce something quite special. We are delighted with the film."

Animation

The animation began with a mix of 3D cgi and 2D drawn art. The 2D work was hand-drawn by Andrew Bent and then scanned, along with painted backgrounds and surfaces to be overlaid onto the 3D animation surfaces. The 2D work was used for a child's illustrations on the pages of a book at the start of the story, comically showing the breakdown of the relationship of Janey's parents from the viewpoint of the young heroine. The last image then translates into the first 3D image of the main story through some clever tricks using the Avid DS|HD editing system.

Animator Ross Milne explains some of the 3D animation work: "The opening scene with the fly and the book is a good example of the range of controls that SoftImage gives the artist. The fly was placed on a path that controlled its flight down, his legs and wings were animated with a system of bones that enabled me to control the exact position of them on each frame. The shadow was cast from the book but to create the illusion of it growing around the fly I had to shrink the book then scale it up while it fell to earth, this gave the effect that was required.

The software assists the animator by keeping the workflow simple and intuitive and allowing quick reviews at any stage to check on progress, and it also gave us the ability to set up automated systems for both the characters and the some parts of the sets. We had controls on each character to control face animation like lip-synch and eyelids. In the sitting room daydream sequence I was able to set up a whole clockwork mechanism that was controlled by rotating a single controller. This was done by linking the rotation of the first cog to the controller, then linking the second cog to the first and so on I was also able to add belt drives and pulleys by using some of the clever expressions that SoftImage offers. The sitting room sequence needed to be timed perfectly to make sure that the dad was in the right place at the right time to be hit by the various traps. SoftImage's Dope Sheet made this very easy as we could grab whole action and shift them in the timeline. This gave us the power to make sure the timing was perfect and the action fast paced.

We used SoftImage to create believable characters by adding a poseable skeleton inside the character models. This was extremely useful when I was animating Fredglob in the bedroom dream sequence when FredGlob needed to move across ceiling to get above the dad. The storyboard called for him to scamper across the beams like the Alien, but the round body, short arms and legs made this impossible. But SoftImage let us quickly and easily try a

number of different methods eventually settling on having him swing acrobatically from beam to beam. While animating the movement across the beams I was able to make the character swing from either his feet or his hands by shifting the control between them. When Fredglob is hanging above the dad in the bedroom he need to sprinkle some goblin dust from his hands. To create this effect we first set up and animated the scene in SoftImage, we added invisible emitters to the hands of Fredglob. The scene was then taken in to SI Particle where we could use the emitter on Fredglobs hand to create a particle effect that dropped down over the dads head. This was done using a number of primary and secondary particles to give it a glittering effect. When this scene was rendered we decided that the particles should be 'glowing' more so we altered some of the properties and added lights in SoftImage, we were then able to fade these lights up as the dust was sprinkled over the dad to give the illusion that the particle were producing a light source".

All animation work from beginning to end was produced using the SoftImage range of animation and rendering tools. Animator Alex Kilgour continues: "Softimage|XSI was particularly useful for us at the end of the project when we needed to piece together some of the shots that needed to be re-worked. It allowed us to pull different elements into the shots, taken from the existing scenes that we still had on file from Softimage 3D into XSI. These could be merged together in XSI and allowed us to recreate and improve some of the missing shots without needing to re-animate large sections of the work. This was important because we did not have the same animators working on these shots as had worked on the rest of the animation and it made it easy to retain the same style of animation and the same look".

Over time, the characters have been evolving, and new characters are being developed. The initial character designs were stiff and a bit like ventriloquist dummies. Animator and particle F/X co-ordinator Conor O'Doherty redesigned original character constraints for the pilot, and the production team have been using XSI and recruiting animation designers to redesign character animatics and 3D character models to be more consistent and to handle with more fluid movement and a better range of facial expressions. The Furry Story series will have a whole anarchic horde of new goblins and human characters.

Sound

Off-line editor Lou McLaughlan and HD Editor Adrian Hamer were able to fine-edit and adjust the soundtracks for much closer lip-syncing on the Avid systems. Producer Jason Robertson states: "We recorded a lot of our own sound effects. The footsteps for example were done on our wooden floor – the mother's stilettos, the dad, the goblin and the cat running were all me tottering around. I remember chasing our cat around the house with the minidisk recorder trying to get "meeaws" and getting up before dawn to catch bird-song. The fly's scratching was done with a toothbrush. I wanted to record my girlfriend's snoring for the dad sleeping, but she was having none of it, so I did those myself. I don't even want to start explaining the fart noises (of which there are many in the cartoon)! Our sound editor John Cobban in Glasgow then did a superb job adding and mixing additional sounds at all the right places. It is amazing how a scene can be changed and improved just by judicious use of sound, and we are really pleased with the results and have been doing further ADR work and a final mix at Shepperton with James Harrison." The final sound design and stereo mix at Shepperton proved how vital good sound is to animation, especially comedy animation. The stereo mix added to the existing humour and also improved the tempo and rhythm of the animation. It is amazing how a scene can be changed and improved just by judicious use of sound, and we are really pleased with the results and have been doing further ADR work and a final mix at Shepperton with James Harrison." The Sound Design Company, based at Shepperton, has been formed since 1984, and has worked on such films as Trainspotting, Full

Metal Jacket, Eyes Wide Shut and more recently, Dog Soldiers.

The final sound design and stereo mix at Shepperton proved how vital good sound is to animation, especially comedy animation. The stereo mix added to the existing humour and also improved the tempo and rhythm of the animation. As James Harrison explains: "Approaching any project in terms of sound requires some fundamental disciplines. Technically, all the dialogue should be clean, natural (ie a natural room or exterior room reverb), and above all, understandable! FX wise, it was quite simply a question of what would make the animation funnier, as opposed to creating sumptuous atmospheres and intricate FX details as you would expect in a film. However, creating a sense of comic timing and rhythm did require some thought and experimentation, it's not all fart noises left right and centre! As with any project, there are also some subtleties within the soundtrack that will be easily missed on the first showing, but will add to the longevity of the product. Because of the nature of the way we work, I will always have an editing system available that is usually jam packed with sound effects. This will always help me to speed up the editing process if the time-scale of the project doesn't warrant me being as creative as I would like. This usually means that I will sometimes use effects from previous productions in more recent ones, and in Furry Story, I found that a lot of the crunching noises that I had from 'Dog Soldiers' came in handy for Fredglobs attacks!"

Post-production

Lou McLauchlan recounts: "We were pretty short of money by this time, having had to resolve a range of technical glitches, and we had to do a lot of leg-work to find deals for editing from a wide range of sources. We were like technological gypsies, so it was important to use compatible systems and EDL to save time. In the end, editing on Avid Xpress allowed us to carefully trim animation sequences and tightly sync character movement and words and sounds, and we managed to give the film a much better flow, with great comedy timing and a coherent story".

Post-production transformed Furry Story into a whole new film. The project was one of the first in the UK to use the new Avid DS|HD system. Adrian Hamer explains: "There were various challenges for the DS|HD system. I discovered the resolution the animation supervisor had rendered in was too small and the wrong aspect ratio for Film transfer. In Avid|DS HD I simply imported the material and automatically up-res this to a HD Universal Mastering format (1920 x 1080 24fps Progressive 16/9) on import, without any softening or artefacts. The other option we had was linking; this allows Avid|DS HD to be integrated within the Animation Rendering workflow. Any changes which require re-rendering can then instantly be reflected in DS and will only mean re-processing elements of the timeline or effects, rather than lengthy purging and recapturing. The excellent backwards and forwards compatibility of the technology and software meant that when you put DS|HD and XSI on Avid|Unity along with other Avid products you have a complete production pipeline solution. You can even use Avid|Review and Approval to allow clients to be directly involved throughout the entire production wherever they are. In our case I implemented a small web based approval process to allow all producers and funders to remotely review and consult on the revised work as it was happening. Because various funders involved were in multiple locations and I was right down at Pinewood Studios I thought to save time on the initial decision making it would be best to set up some form of Web Based Review and approval process. At this time Avid Net Review was still in Beta so I thought it would be quicker to simply knock it together myself and this I did. I created a very basic site in about ten seconds; a design that made it easy to show an online preview and download a larger zipped version of a particular scene. On the DS side I just used the Time-code overlay effect and

exported at Half-res, then I did the rest in Media Cleaner. I exported to versions per a scene and when available amended the HTML and uploaded them to a HTTP server. Hey presto instant review and approval, then all the producers had to do is send me back comments with time-code as reference.

The story called for some visual effects by Ross Milne and the animation team, including the transition of Fredglob from a painting on the wall to a 3D character in the room. The effect in the end seemed quite rough however at higher resolutions, so we redid the sequence effects using the DS|HD system.

I was able to add a number of excellent special visual and lighting effects on the DS|HD to really improve some sequences. We also decided it would have been useful to have extra shots to offer more choice for editing where animation material was not available. I decided to play with existing shots with DS Tools like DVE and Colour Correction, turning them into new shots to make edits more flexible (and to even my surprise no one except me admitted they could spot the new “fakes”). After importing the rendered *.Tga and *.Pic (Softimage File Format) file’s into DS I worked on re-timing the opening Story Book (page turn sequence) and remove un-needed 2D animation on the final page and use this to create a transition into the main 3D Story. Timewarps were used to deal with the re-timing and for the transition, this was created using a compositing tree, but contained within customised transition effect. This is because in DS every transition has a compositing tree within in it and you simply need to expand this tree and add additional effects to customise it. I also retimed other sequences and reframed some shots for better effect. It all worked out very well indeed.”

The Technology

The team used Intergraph workstations with SoftImage 3D and XSI for animation, Avid Xpress editing and Avid HD Digital Studio (DS|HD). Producer Pat Green says: “One of the main considerations was that the software needed to be user friendly. The joy of SoftImage, Avid and ProTools is that we don’t need to reformat, recalibrate or adjust our material for different systems – in terms of compatibility and ease of use it all works like a dream. We made sure we retained our rights in all negotiations and we will now go on to redesign existing and new characters using XSI and develop the series with our collaborators for the international market”.

From it’s humble beginnings Furry Story is now heading for an international audience. A rough-cut was selected for the British Animation Awards and the European Cartoon Forum this year and a series is being developed by The Brothers Dimm and Magic Stone. The BBC are now committing further finance to boost the star-power of the project, with Alan Ford (Snatch; Lock, Stock and Two Smoking Barrels) and James Nesbitt (Lucky Break; Bloody Sunday; Cold Feet) now attached.

Finance

The project has grown over the past three years, and the financing has been complicated. BBC Northern Ireland committed to the project based on the strength of the script, and the Lottery Fund, via the Arts Council of Northern Ireland followed. When the local development system works, as it does in Northern Ireland, it does so very well. As Andrew Reid of the Northern Ireland Film Commission stated: "*Furry Story* is another example of how Northern Ireland talent and the latest technology can be brought together to produce something truly exceptional. It is a credit to both BBC Northern Ireland and the Arts Council of Northern Ireland that they had the foresight to back this project." Further investment came

from Invest Northern Ireland for business development and the MEDIA 2 Pilots scheme, along with bank loans and private finance. The next stage is taking the project to the international markets, and discussions are going well with a number of European and Far Eastern companies.

For more details, check out www.magicstone.co.uk and www.thebrothersdimm.com

Image credits:

Design, animation, HD effects and post-production on images by Adrian Hamer, Alex Kilgour, Lou McLauchlan, Ross Milne, Andrew Bent, Simon Etcheverria, Olly Nash, Conor O'Doherty, Ken Simpson, Maarten Heinstra, Will Simpson, Deborah Salvador, and Jason Robertson. (All people worked on the film, so it's easier to have a single mass credit for all pictures used and storyboards were provided by W Simpson).

Graphics are supplied in relation to the work referred to by Ross Milne and Adrian Hamer in the article, and may be useful for small inserts to illustrate the text references.

Furry Story has been supported by the Northern Ireland Film Commission, MEDIA 2, and the Arts Council of Northern Ireland Lottery Office. Magic Stone and The Brothers Dimm have offices in Belfast and Glasgow, and will soon open an office in London.

Jason Robertson writes and produces for Magic Stone and The Brothers Dimm, as well as teaching Media Production at the University of Paisley.