

Hogfather

Hogfather is a major new drama for Sky One over two 2-hour episodes. Shot in HD and full of CGI from MPC on a TV budget

Hogfather is a multi million pound production from Sky and RHI, they aren't saying how many millions but this is a new departure for Sky and on the face of it a lot of production had to fit in not so much time and money.


Gavin Finney was brought it as DoP and production company had already agreed with The Motion Picture Company that they would be present at the pitch to provide a 'reality check' for any CGI that was to happen. Everybody agreed that if these two movie length productions were to come on budget and schedule planning was key. That planning was to take the form of extensive story boarding with no room for wavering.

Gavin was integral in the decision making process of how the hell they were going to do it for the money and in time: "The challenge was a nine week shoot which needed to be

18. We've got 4 1/2 weeks for each 1 1/2 hour movie. To do any film in four and a half weeks is a challenge but to do a science fantasy special effects piece like this is a big call.

"Initially we were going to shoot film because film is still the most plastic medium and still the most resilient and versatile – no HD camera can shoot full 4k resolution at 120fps at a touch of a button and without any cables. Film gives you the opportunity to reframe within a frame which can help quite a lot.

"So in the very early days it was a film project but then as we started to look at it and I knew about the new hi def cameras coming in like the Genesis and the D20, it started to look very interesting especially for the Arri D20. I'd tried to get it out on a few jobs previously but it simply wasn't being released.

"Arri started to get interested too and we started to see 

Most of the filming was done at Three Mills in London with locations in the City of London at the Guild Hall and in the East End. In this scene we're on set in the tooth fairy's castle



Hogfather is the first ever adaptation of a Terry Pratchett novel and it has a heavyweight cast with ITV drama favourite David Jason in a lead role. Look out for it around December 18.

all the positives, obviously you're in the digital domain already, there's no stabilisation issue, you save money on a long project like this in terms of stock and processing.

"Once we got hold of it we started to test it. There were two questions, one what does it look like and two, was it up to it technically in terms of what MPC had to do with compositing and digital FX.

"We did a lot of testing with the prosthetics especially death's mask and tested different materials. This is a tough film to shoot for film let alone video because it is all at night, all in winter with snow. So you've got white and black contrast and with naked exposed flames and exposed light sources.

You've also got Death who has a white mask with a black cloak and at night with blue and greenscreen and animals and fx!"

Pure Key

MPC came back and said that the blue and green scenes were perfect, just one button press and they had a pure key. That was a big one, if it had failed that test they would have had to go back to film. They then had a look at the kind of depth it had with highlight and shadow which was very, very good.

"We took into MPC and put it on their iQ to see how far we could push it. Also we used the tests to pick the materials that would work best. Even film has problems with black velvet for instance so we talked to the costumes about the types of material that would show up.

"We did it push further than you normally do because I didn't know what the parameters of the D20 were. We also looked at 4:2:2 against 4:4:4 when we looked at the different ways of shooting with HDCAM SR, SQ or HQ and extended range and standard range. We looked at all of those to see what the differences were.

"Also we liked the look a lot. It was a very un-video look partly because you're shooting with 35mm lenses so you have 35 mm style depth of field which is always a giveaway on video with its infinite depth of field. So you're getting a softer look already and you've a whole arsenal of lenses to choose from.

"The big, big plus about the D20 is that you're not looking at a monitor you're looking straight through the lens. Its the only one that does that, it's a huge plus for the operator and the lighting cameraman because you can see what you're doing. You can also see round the frame, you're not limited to just what is in the frame. You can see if there is a sharpness problem instantly without having to refer to a monitor.

"Also technically the Genesis and the D20 are the only ones that are single chip cameras at the moment which means you don't have collimation problems unlike the Sony cameras and the Viper which can float out of focus without warning. The Viper and the Sony still have an HD look however good that is. Its an aesthetic, I'm not saying one is better than the other, its just a look that they've got. Some HD cameras over sharpen everything and that can be a problem with prosthetics and



HD In a Film Pipeline at MPC

MPC was brought in as early as the pitch to cost out how much the CGI was going to be. Oliver Money was initially concerned when they heard HD was the acquisition format:

"They wanted to grade everything quite dark as there was a lot of night work. I know Gavin wanted to keep quite a rich feel to it. The D20 came out really nicely in the 4:4:4 10-bit but didn't go the full HQ because there was a trade-off with file management and disc space. I think HQ would have been around 8.5MB per frame which was bigger than anything we'd done HD-wise before but still not as big as film which at 2k is about 12MB per frame.

"The keying of the D20 was so good we could reduce the number of days we had put down for that. That time is taken up elsewhere and HD is still much more expensive than working SD but the results are

worth it.

"The 10-bit does also make a big difference with about 1000 times more colour than 8-bit. HD traditional has a bit of a problem with blacks and whites but with the D20 footage there was a huge amount of detail hidden away, we could turn shots up that were dark and so on. That was really handy for us when we were tracking stuff, some of the plates were shot quite dark but we could turn it up and find a lot more detail.

"When we first heard it was HD we were recommending going down the film route and then scanning it to HD size. It has proved to be a good way of working because we can always go back and get a bigger resolution if need be.

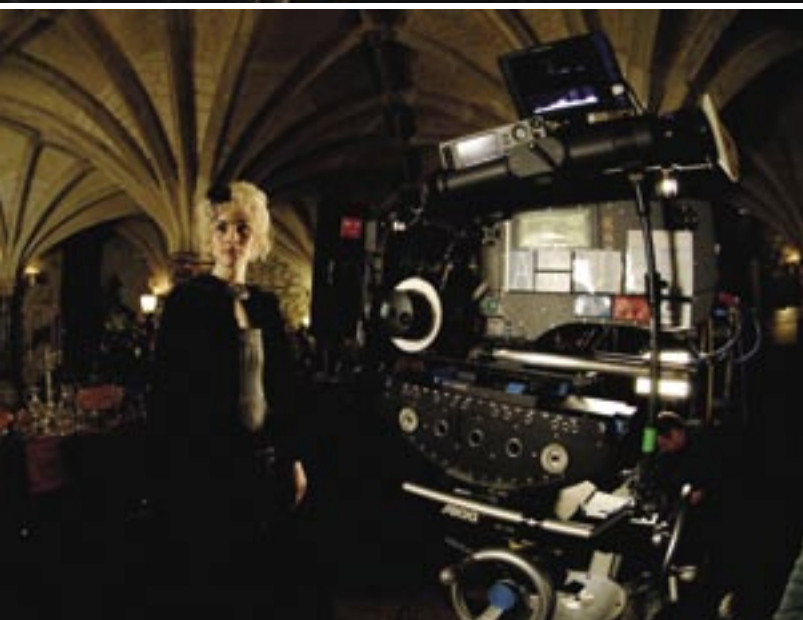
"But once we started testing the D20 and we saw how good the Arri support was, we quickly realised it

was going to be absolutely fine.

"At MPC we had to upgrade a few things and we got in a DVS Clipster which is basically an import and export station but at realtime. With TV projects input and output has to be quite fast. So we could conform into the DVS from the SR tapes and then we would grade off there. We were tapeless from that point onwards.

"It stores eight hours of 4:4:4 footage so holds about 10 terabytes of footage on their for all our plates and then is farmed out to different operators to work on."

By the end of August the plates from the first episode had been graded and the second just started. The final grade is in November for a December delivery to Sky. All together there will be about 200 FX shots completed at MPC.



special effects make up. The great thing about the D20 is we had absolutely no problem with make-up or wig lines or seeing too much, we didn't have to filter it very much at all.

In Camera Moves

The budget also dictated that normal motion control shots would have to be bypassed and solutions would have to be found on the floor, Gavin relied on old theatrical magic to achieve some shots, although he's not letting on how he did it.

"We did a lot more in camera than we would normally do on a film, sometimes we would do a shot which would normally be a motion control composite shot. We would say 'how do we do this in shot in one go because we couldn't afford the FX shot... there were a few times where for instance the character of Tea Time the assassin had a way of moving, he moves very quickly almost gliding along. He can move across the set in a blink of an eye. All those moves you'll see in the film were done in camera rather than any speed ramping or comping. There's an old theatrical way of doing it using slight of hand practices.

"I think it's a big mistake to process in camera with HD, that again is another minus point about the Sonys, even the Genesis still has all these Sony sub-menus in it which are very dangerous because you have to make sure you have defaulted them to zero because you don't know what the previous renter has done.

"Why do that in camera when you can do it much, much better in post. Having said that there were a couple of times we played with the colour temperature setting because I wanted to get the edit to look as near as possible to how the grade was going to look. I definitely lit it to look right. I didn't light it to assume a lot of post production grading apart from one scene which had to go to black and white.

"There are a couple of settings where you can de-saturate the image slightly and I did that but that's all fairly gentle stuff, anything else you've a million quid's worth of Quantel iQ to use. The best way is to get all the information on to the tape.

"We did shoot 4:4:4 in the end and that was technical as you can't really see the difference between 4:4:4 and 4:2:2 on the screen but it made a big difference in terms of keying. Although I have found, talking to Max the colourist at MPC, that it is definitely easier to push the colours around in 4:4:4. You can get better secondary colour correction, better colour keying. There's no penalty to shoot it in terms of tape, it doesn't take anymore.

"It does effect the post production because up until last year I don't think there were many places that could do 4:4:4 on HDCAM SR. MPC had to upgrade some of their equipment so that they could grade and render fast enough in 4:4:4.

"Frame rate wise it kind of stuck at 25p because they advertise 60 but it doesn't yet go there. It'll go to 30 which isn't really enough so for the very high speed stuff we used a Tornado HD system."

Most of the shooting was at Three Mills in London but some shooting was in the East End of London and in the city of London, in the Guild Hall. Beautiful locations like the basement of the Guild Hall with its vaulted ceiling (see cover shot).

There's no doubt that the production of Hogfather was a genius work of planning and forethought on a constricted budget but with ambitious creative goals. Sky is very pleased with what they've seen already and with many more books from Terry Pratchett already written this could be another Harry Potter experience – but maybe not on a TV budget.

