

The Digital Cinematography of The Peanuts Movie

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Figure 1: Camera and Staging and Rendered frames from the new camera in *The Peanuts Movie*. Image Credit: © 2015 Twentieth Century Fox Film Corporation. All rights reserved. PEANUTS © Peanuts Worldwide LLC. Not for sale or duplication.

Abstract

The creative demands of bringing *The Peanuts Movie* to the silver screen called for cinematography that would maintain Schulz' classic 2D comic appeal in a three dimensional world. Depth and scope needed to be added to a world drawn in a minimalist style and camera movement and shot progression needed to be created based on implied cinematic principles in the strip. To address these issues we designed a new camera, changed the workflow for staging set elements, and created a precise shooting style. The result is a previously unseen yet faithfully appealing look for the Peanuts world in 3D.

1 Camera

It was decided in pre-production that we wanted "the frame" of the camera to remind the audience of a comic strip panel. However, our previous four films had used cameras with a CinemaScope film gate with a 2.39 aspect ratio. This anamorphic lens squeezed the image along the horizontal plane, which allowed a wider view of the CG environment, but was not appropriate for the strip based framing so central to Peanuts appeal. To emulate more of the comic strip feel, we switched to a spherical lens for a more panel like 1.85 aspect ratio.

Our earliest films had used a 1.85 aspect ratio. However, like a character rig, a camera rig can evolve from show to show and we didn't want to just revert back to older technology. Instead, we conformed our new film back to the Digital Cinema Initiatives specification.

With the aspect ratio and film gate of the new film-back in place, we could determine the different pixel dimensions of our Film Out film image size and the dimensions of departmental review images. The necessary changes to camera needed to be communicated downstream since they would affect render calculations, departmental workflow, and film delivery. These changes were so important that they were tracked by our new BXT system, a custom contextual configuration to share data down the pipeline.

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2 Staging

Armed with our new camera rig, we performed camera wedge tests of the characters to find the ideal focal lengths and camera setups. This would be the first time the Peanuts gang would be seen with a 3D camera on film and it was imperative that they look like the classic characters. Through the wedge tests, we discovered that the characters looked on model with 50mm and 85mm lenses and became distorted outside this focal length range.

Our new camera package had longer lenses than on previous films, so they compressed the distances of the backgrounds. This meant that in exterior shots the set dressing felt much closer than it really was. This required the set to be spread out much further to achieve normalcy on screen which would affect the Assembly and Stereo teams.

In addition, the longer lenses meant that interiors had to be modeled with break away walls and ceilings, so they could be keyed off so as not to block cameras. Other integral set pieces would have to be keyed shot to shot for compositions. This meant that for the first time we were creating an extreme discontinuity to achieve a perceived continuity.

3 Style

We establish a shooting style on every film. During pre-production, our director urged us to keep "one hand on the strip". To accomplish this, we created a precise shooting style that included fixed camera height at character nose level, lots of lock offs, and no rotational pans. It is very unusual in CG feature films to stay loyal to shooting style, especially one as exacting as that of the Peanuts movie, but we never wavered so we could remain true to Schulz' vision.

The characters in the strip were only ever drawn in two angles. Translated into a rig that meant that we had only two character views. It was paramount that these beloved characters remained in their iconic flat views at all times. This straightforward rule meant that in the film, head turns had to be snappy: occurring over one or two frames. This style of animation limited our cinematic toolset. A simple cut-on-action became a very complicated endeavor.

There was one exception to the shooting style that we could make – the world of Snoopy's imagination. Schulz never drew the Red Baron so it freed up our shooting style. Where the Charlie side of the movie consisted of nearly all lock-off cameras, the Snoopy side was full of dynamic cameras flying along with Snoopy on his doghouse. Despite the bigger cinematic freedoms in Snoopy's imagination sequences, however, we still filmed Snoopy with cameras at nose height and minimal camera pitch.