





Second Chance Games & Visual Effects scan an actor in a massive black robe to produce an accurate digital double for Sleepy Hollow.

Want to know how Artec scanners cope with the hard to scan black surfaces? Let's hear from Second Chance Games & Visual Effects who have scanned an actor in a very sophisticated robe for an episode of Sleepy Hollow. Second Chance Games & Visual Effects is an Atlanta based media provider of digital assets for the games, visual effects and 3D visualization industries.

The studio developed a digital double of Wraith, an ancient demon played by actor Alexander Ward in 'Whispers in the Dark,' Season 3 Episode 02 of the Sleepy Hollow TV series (©20th Century Fox).

"The robe he was wearing was made of different fabrics. Some was mesh-like where you could see through it," says Vic Holt, Vice-President of 2cgvfx.

"To some degree it was shiny and black...two very difficult things to address in a scan!"

Vic attempted to scan the robe with settings set standard, but realized some of them needed to be tweaked.

"The settings had to be changed on the texture brightness bringing it down a small amount to take the glare off so the scanner could see better. Also, we adjusted the sensitivity up some and just had to move slow," says Vic.

The area to capture was quite large, and the team had to scan in sections with plenty of overlap so alignment could be done well. They used Eva for the robe and Spider for facial areas of great detail.

"The robe weighed a good bit and we had the actor stand on a turntable with poles to rest his hands on keeping his elbows locked into position," says Vic. "We knew going in that the robe would probably fall off our very large turntable so I went to our shop and cut a larger piece of wood to be affixed to the top

of it to hold the extra cloth material instead of it dragging on the floor when we spun him."

Vic also used a special handle hooked to the scanners on one side, and on the other side there was a small monitor hooked to the hdmi port on the computer. "It allowed me to see what I was scanning rather than having to look over at the computer," says Vic. "I just mirrored over the display and had Artec doing a Real Time Fusion while saving the raw scan file in the background."



After scanning the robe the team had to remove it and do more scanning of his body just in case the robe moved and the chest area would be exposed. "So we basically had two separate scans to work on....the robe and the guy under it," says Vic.

Then the models were rebuilt and remeshed in ZBrush so they could be altered and animated. "The mesh work needs to be done in a way that is optimized for animating as well as in not hindering in the rendering phase," says Vic. "We provide the model as optimized as possible so they easy to deal with by the vfx department."

"It's been real fun creating digital doubles of wonderful creatures this show has developed," says Vic. "Their attention to detail is quite evident in watching the show as my wife and I have done since its beginning."

