

Visual fx houses use Eyetronics scans to vanquish vampires in *Blade: Trinity*

by Jill R. Aitoro

Gone are the days when vampires simply poof away with a fabled stake through the heart. No, these days the death scenes of the fanged ones are far more spectacular. Sometimes deadly viruses cause their skin to bubble, blister and disintegrate; other times bullets or trusty stakes – still the weapon of choice on occasion – cause them to combust into bits and vaporize away.

At least that's what happens when vampires are vanquished in New Line Cinema's *Blade: Trinity*, thanks to scanning technology from Eyetronics and skilled visual fx artists from Giant Killer Robots, CafeFX, and Digital Dimension.

Scanning for three fx houses

In *Blade: Trinity*, due out December 8, Wesley Snipes returns for his third stint as the vampire hunter – this time on a mission to stop vampires from resurrecting Dracula, and to defend his smeared name. Joining him in the fight is Kris Kristofferson as mentor Abraham Whistler; on the dark side, Parker Posey plays vampire leader Danica Talos and WWE's Triple H her disciple Grimwood.

To create the desired effect for both the vampire death scenes and the action sequences, filmmakers turned to three different visual fx houses: Giant Killer Robots for the high-resolution stunt effects of the main characters, CafeFX for the boiling effect on the vampires' skins (both inside and out), and Digital Dimension for the traditional "ashing" – or breaking down of vampires into tiny particle pieces when they're vanquished.

The actors were scanned with Eyetronics portable scanning system, which enabled the company to take their technology where it was needed and make it available at a moment's notice. With hundreds of extras, and without knowing exactly who would need to be scanned when, sessions sometimes happened on an ad-hoc basis; flexibility was essential.

"The cyberscanning for *Blade: Trinity* required a company that could not only deliver fast and accurate scans to multiple locations but also be flexible enough to travel back and forth from Vancouver throughout the course of a five-month shoot," says Joe Conmy, visual effects producer for the film. "The portable scanning equipment allowed the technicians from Eyetronics to simply hop on a morning flight and be on set and ready to scan by midday."

In six visits, technicians captured about 60 full-body scans of Wesley Snipes, Kris Kristofferson, Triple H, and vampire extras.

“We also did a couple of Rottweilers, and a devil’s creature that was 7 feet tall,” says Nick Tesi, Eyetronics’ vice president of U.S. operations.

Eyetronics’ ShapeCam system, a portable scanning device based on off-the-shelf camera hardware, captures geometry and textures by taking a photo with two rapid flashes: the first captures geometry information by projecting a grid onto the subject through a fixed-focus lens. The second captures high-resolution textures with a simple picture.

A faster path to realistic effects

Of the 60 scans taken, 55 were selected by Conmy to be processed by Eyetronics using its proprietary ShapeSnatcher software. ShapeSnatcher turns the 2D grid information captured by ShapeCam into 3D models. It enables Eyetronics to automatically stitch together the different 3D perspectives, blend them into a smooth model, and output them in common animation formats. The 3D models for *Blade:Trinity* were output as high- and low-resolution 3ds max files for Digital Dimension, and as Alias Maya files for Giant Killer Robots and CafeFX.

Regardless of the visual fx each was going for, having the 3D scan data saved all three facilities a great deal of time. While difficult to estimate just how much, Domenic DiGiorgio of CafeFX says the alternative would have been to obtain the required 3D geometry data of the actors by cyberscanning or modeling them by hand from reference photos.

“Either alternative would have added substantial time to our schedule,” DiGiorgio says. “The cyberscanned geometry would have needed significant cleanup and remeshing to implement into our pipeline, and the hand modeling would have required substantial time to accurately reproduce the actor.”

Instead, CafeFX used a multilevel matchmove rig with the Eyetronics scanning system to capture detailed scans of the actors’ heads and bodies. Artists then used Lightwave 3D to apply a decaying skin effect onto the actors’ digital models. Once lit and rendered as multiple elements, compositors integrated the effect onto the original footage. The processes for the other two visual fx houses were similar.

“Eyetronics supplied very accurate scans at exactly the resolution we required,” DiGiorgio says. “The scans also come with the associated color texture maps fitted to the UV coordinates, which made our job a lot easier. We will definitely use the software again for other projects.”

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