

## Motion Analysis Creates Nike Mo-Cap Effects

Motion Analysis Studios created a 50x50-foot volume to capture motions of NFL stars Terrell Owens and Michael Vick for Nike "Gridiron," a commercial spot directed by David Fincher. "Gridiron" takes viewers right into the action of a digital football arena, complete with snow and a fantasy football team of 22 growling opponents.

In order to create the realistic effects needed, Motion Analysis used 50 cameras to capture up to six players at a time per-



forming high-intensity football moves and tackles. The entire shoot was accomplished using the Motion Analysis Digital Eagle System, which allowed Fincher to view the data instantly during the shoot.

Motion Analysis also worked with partner Nexus Digital Studios to scan more than 20 players and actors, including Michael Vick and Terrell Owens, in three dimensions. The data was provided to Digital Domain, whose team then created the animations necessary to bring the elements to life.

**Info:** Motion Analysis Studios, [www.mastudios.com](http://www.mastudios.com)



Each of *Angel's* more than 100 episodes combines complex effects, 3D elements, and live-action footage.

# Angel's Heavenly Creatures

## Making One Of TV's Most Visually Innovative Series

**Sarah Stanfield**

Joss Whedon is a cult leader and Jeffrey Bell is his high priest. Along with their staff, the two are responsible for *Angel*, one of television's biggest cult hits this side of *Star Trek*.

*Angel* concerns the adventures of a vampire named Angel, "cursed" with a soul and a conscience, as he seeks to eradicate evil in Los Angeles. During the show's more than 100 episodes, he's had to battle demons, vampires, a time-traveling vampire hunter, an evil law firm, and a rogue vampire slayer. The fifth season, on the WB, sees Angel and his team running the Los Angeles branch of Wolfram and Hart, the "evil law firm" that featured prominently in the show's first four seasons.

As the co-executive producer of the series (the other executive producers are Whedon and David Fury), Bell is in the trenches daily, making sure the vision of show Co-Creator Joss Whedon is consistently implemented, pitching ideas and hearing them pitched, reviewing and rewriting scripts, and coordinating the visual effects that make up a large

part of the series. "I run the show for Joss, which means I try to deliver 22 episodes of *Angel* that he'll be proud of," says Bell. "I try to protect his idea, his vision, what I believe his sensibility to be."

Much of Bell's time is spent developing and finessing scripts. Once the script is delivered, revised, and finalized, Bell coordinates with Rob Hall, who runs special effects makeup company Almost Human, on the monsters, demons, and other non-human creatures that will be featured in the episode. Almost Human provides most of *Angel's* creatures. Bell also talks to Loni Peristere—CEO and creative director of Zoic Studios, which creates most of the visual effects for the show—about what types of effects will be needed for the episode.

Dissimilar to most episodic television shows is the number of special and visual effects employed by the *Angel* team. On any given episode, for example, viewers will likely witness a "dusting." (When a vampire gets killed, his body disintegrates, leaving behind a pile of dust.) Another common effect is what Peristere calls a "vamp," when a



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A common visual effect performed by Zoic is transforming characters from humans to vampires. Here, the character Spike goes from human (left) to vampire (right).

vampire changes from his human to his vampire visage. For a dusting, the Zoic team takes live-action footage of the talent and layers it into 3D elements. The 3D elements include 3D dust men and 3D skeletons, which emit 3D particles.

To create a vamp transform, Zoic artists composite a live-action plate of an actor in his regular (non-vampire) makeup and prosthetics with a live-action plate of him in the vampire ensemble. A series of warps and dissolves later, the composite is complete. "We basically warp one piece of live-action footage onto another piece of live-action footage, and we dissolve the two together by lining like features," says Peristere. "We'll take the eyebrow of one and line it up with the eyebrow of the other. We do that over about a second

of screen time. Theoretically, you [the viewer] don't see it."

When disparities crop up between the two plates, Zoic special effects artists use Discreet flame to reconcile the differences. "We basically force the elements that don't fit by bending them," explains Peristere. "We'll force that second face into the first face or the first face into the second and cross-dissolve them."

Zoic uses Discreet flame and combustion to create most of *Angel's* visual effects. "Discreet has just added warp tools to combustion's palette, which is excellent. The software now has the capability of rendering on a backburner, allowing it to render on multiple processors, making it very fast," says Peristere. Zoic also uses Elastic Reality for physical transformations.

Bell often has Zoic step in to add digital flair to the looks created by the Almost Human team, especially when demon characters are involved.



High-tech effects deserve a high-tech recording format. To that end, *Angel* posts in 24p, though footage is shot in 35mm. Bell, not a big fan of high definition, says that the format "limits us technically. I'm sure film is ultimately on its way out, but, right now, I really love it."

*Angel* is currently in the middle of season five on the WB. Although it was recently cancelled, there is talk that UPN may pick it up. ◀




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