

THE GOLDEN COMPASS

2008 ACADEMY AWARD WINNER
 'BEST VISUAL EFFECTS'



Michael Fink, Bill Westenhofer, Ben Morris and Trevor Wood

Thanks to detailed, true-to-life models and a lot of hard work: 'The Golden Compass' won an Oscar in the category of 'Best Visual Effects' at the 2008 Academy Awards.

The Konica Minolta VI-910 laser scanner was used as a key component in generating the superbly realistic computer graphics that gave the armored polar bears their award-winning dynamic look. Art Department sculptures and real skeletons were scanned to capture crystal-clear 3D high-resolution models with color textures.

The result enabled the incredibly realistic blend of 3D animation and real film footage that can be seen in the film.



A 200-strong team at Framestore-CFC, the largest visual effects and computer animation studio in Europe, spent 15 months creating the animation for 'The Golden Compass'. On February 24, 2008, the film from New Line Cinema won the Oscar for Best Visual Effects.

"The task of creating such highly realistic, computer-generated bears does not start on the computer," states Sean Varney, who heads Film Set Metrology at Framestore-CFC and is responsible for digitizing film sets, actors and props. "The entire movement of the virtual figure has to be recreated based on the real anatomy of a polar bear to ensure each expression of an armored bear looks realistic, from running to the different reflecting metal plates of armor which move and shift over its fur. Our work starts not with the PC but with creating real models and the lifting of their 3D form into Computer Space for which we needed a good 3D scanning system."

Hand work: Using real-life models to create virtual characters

Three-dimensional fiberglass models of the individual figures had to be created in many different poses based on real photos and videos and then digitized.

Sean Varney goes on to say, "We use the VI-910 digitizer from Konica Minolta to capture 3D data sets of each of the models, something we have already used to create special effects for films such as 'Harry Potter' and TV shows like 'Primeval.' The portable VI-910, with its telescopic, middle and wide-angle lenses, lets us produce high-resolution 3D scans of all models from miniature to life-sized, to us this is a great plus with the system. Also it's a non-contact surface structure, color scanner, each scan takes just a matter of seconds. When you're on a live film set that's a life saver. For post-processing we used the Easy Align software with the system, it merges the individual perspectives to create the 3D model."

'The Golden Compass,' starring Nicole Kidman and Daniel Craig, goes on sale on April 28, 2008 as a single DVD or as a special edition set that includes a bonus DVD. And Framestore-CFC will continue to use the successful technology in its current and future film projects such as the 'The Chronicles of Narnia - Prince Caspian' and 'James Bond 007 - Quantum of Solace.'