'Transformers,' 'Star Trek,' 'Terminator' and 'Harry Potter': ILM Delivers Visual Effects Magic With Autodesk Software

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SAN RAFAEL, Calif., July 9 /PRNewswire-FirstCall/ -- Academy Award-winning visual effects house Industrial, Light & Magic (ILM) relied on Autodesk, Inc.'s (Nasdaq: ADSK) digital entertainment software to create thousands of visual effects shots for this summer's hottest movies, including "Transformers: Revenge of the Fallen," "Harry Potter and the Half-Blood Prince," "Terminator Salvation" and "Star Trek." ILM created stunning visual effects using Autodesk visual effects software, including Autodesk Maya and the Autodesk Inferno software that is part of ILM's proprietary SABRE high-speed compositing system.

(Photo: http://www.newscom.com/cgi-bin/prnh/20090709/SF43765)

"Every year the quantity and quality of visual effects-driven movies rises. ILM continues to push the technological and creative envelope by creating stunning visual effects that thrill audiences worldwide," said Stig Gruman, VP of digital entertainment, Autodesk Media & Entertainment. "Autodesk is proud to be associated with ILM and its hundreds of visual effects pioneers who contributed some of the most memorable and stunning effects of this summer."

The summer movie season began in early May with the global release of "Star Trek" for which ILM created 797 shots on some of the largest CG models it has ever built using a combination of tools, including Maya and Inferno. "'Star Trek' was one of the most creative, fun and artistic projects I've ever worked on," remarked Eddie Pasquarello, ILM's associate visual effects and compositing supervisor on the film. "We specifically positioned this project in the Inferno/SABRE system because we knew we could make something really special. The reliability of the system combined with the outstanding talent we have here virtually guarantees spectacular results. 'Star Trek' was a magical combination of super powerful software and amazing talent."

"This film represented a new beginning for 'Star Trek.' Working closely with J.J. Abrams, we wanted to bring a fresh look to everything," said ILM Animation Director Paul Kavanagh. "Using the hardware rendering tools of Maya, we were literally able to animate 70 shots in five days - a process that normally requires months for production. The speed of Maya, its ability to iterate so easily, and its seamless tie into our proprietary Zeno software platform make for a toolset that doesn't inhibit creativity and was, in fact, a key to the success of the project."

With over 555 shots and 46 hero robots - some with over 50,000 individually animatable parts - as well as the need to create an IMAX version, the sequel to "Transformers" posed many challenges for the ILM crew of 250+ artists who worked on the project. The crew calculated that it would take a typical home computer 16,000 years to render this movie. Associate Animation Supervisor Jeff White said, "With different artists of different disciplines and skill sets collaborating on the movie, the ever-increasing interoperability of Autodesk tools is a big advantage." ILM used the capabilities of a range of Autodesk software across the "Transformers" production pipeline: Autodesk 3ds Max software for digital matte painting, Autodesk Softimage software in the art department, Inferno/SABRE for compositing, Autodesk Backburner software for network processing and Maya as the core tool for animation, rigging and layout. White added, "Maya gave us incredible performances from the robots; it's not just about the action sequences - a big part of the story are the artistic and emotional aspects of key moments between the robots and the human actors. We could achieve this because of Maya and the flexibility of the Python scripting. Great animators with great tools made for a fantastic movie."

In addition to "Star Trek" and "Transformers," an ILM team of 150-plus created 366 effects shots for "Terminator Salvation" using Maya and Inferno. "Autodesk software was integral to achieving the ambitious visual effects of 'Terminator Salvation' within the short production schedule," explained Ben Snow, ILM visual effects supervisor on the film. "Maya was the backbone for ILM's animation for all the Terminator robots and its flexibility has made it easy for us to integrate it with our proprietary software. Inferno was instrumental in the success of creating the digital Arnold Schwarzenegger T-800 by allowing us to seamlessly blend the CG actor with the real body double," added Snow. "Inferno also provided the firepower, speed and flexibility we needed to create the challenging shots of the digital human T-800 being blasted with grenades and the resulting damage."

And in this summer's upcoming Harry Potter installment, 80 artists contributed 165 shots to the film using a combination of Maya and Inferno. The scope of ILM's work on the film includes extensive photorealistic fluid simulations of fire and water as well as crowd duplication scenes, including thousands of animated characters in a single shot. ILM is currently in production on Gore Verbinski's first animated feature, "Rango," James Cameron's "Avatar" and M. Night Shyamalan's "The Last Airbender" and plans to use a similar set of Autodesk tools.

About Autodesk

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