



Autodesk Tools Help Destroy the Universe in Roland Emmerich's Movie "2012"

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Hundreds of Visual Effects Artists Use Autodesk Software to Help Create Disaster Movie of Spectacular Proportions

SAN RAFAEL, Calif.--(BUSINESS WIRE)--Dec. 3, 2009-- Roland Emmerich films are synonymous with superlative visual effects — "The Day After Tomorrow," "Independence Day" and now "2012." Hundreds of artists created close to 1,500 visual effects shots using digital entertainment creation software from [Autodesk, Inc.](#) (NASDAQ:ADSK) to help create the majority of spectacular effects in "2012."

The Maya civilization left humanity its calendar, with an end date of 2012. This date is significant to many cultures, religions, scientists and governments. The Mayan prophecy has been well-chronicled, discussed and examined. "2012" is an epic adventure film about a global cataclysm that brings an end to the world and tells of the heroic struggle of the survivors. "2012" is directed by Roland Emmerich, written by Harald Kloser & Roland Emmerich, and produced by Harald Kloser, Mark Gordon and Larry Franco.

"The scale of visual effects in '2012' is astounding. This film is a perfect case study for the breadth of our portfolio of filmmaking products, including our 2007 Technical Achievement Academy Award-winning Maya visual effects software," said Stig Gruman, vice president of digital entertainment, [Autodesk Media & Entertainment](#). "Autodesk tools are designed for creativity, flexibility and interoperability, freeing creative visionaries, artists and production teams to focus on the work as opposed to the technology." In an interview with [MSN](#), Roland Emmerich, "2012" director, co-writer and executive producer, said, "Basically, it's the digital technology which is so amazing. It gives you a new freedom and I really use that to the max."

Uncharted Territory, the lead visual effects (VFX) house and co-producers of "2012," created over 400 shots mainly using [Autodesk 3ds Max](#) software for modeling, UV mapping, rigging and animation; [Autodesk Maya](#) and [Autodesk Softimage](#) software products for modeling; and [Autodesk MotionBuilder](#) software for pre-visualization, motion capture and final animation. As a co-producer and VFX supervisor on the movie, Marc Weigert said, "We've been using 3ds Max since our company's inception, so it's almost tradition. There are also countless plug-ins for this amazing software, making it even more essential to the success of our shots." Uncharted Territory created the total destruction of fully computer generated (CG) photoreal Los Angeles and Las Vegas. CG Effects Supervisor Ari Sachter-Zeltzer said "3ds Max software's OpenEXR format allowed us to push through an amazing volume of work in a relatively short time." Weigert added, "[Autodesk FBX](#) format was another real time saver. It eased file exchange between the various Autodesk software packages and helped us deliver on budget and on schedule."

Double Negative used Maya to help create over 200 shots, including the destruction of St. Peter's Basilica in the Vatican. The destruction involved smoke and dust simulation, digital crowds and a fully CG environment. In addition, Double Negative built a massive volcanic rock and ash cloud, lava eruptions and cracking fault lines in Yellowstone Park. CG Supervisor Gavin Graham said, "Maya is at the core of our pipeline and was an essential hub for our workflow. From the start of the process in our layouts, animations and asset creation, through to completion, its scripting capabilities allowed us to manage scenes of enormous complexity. We found Maya particularly beneficial for our dynamics and lighting pipelines. It helped us generate elaborate yet believable effects in an artist-friendly way."

Sony Pictures Imageworks (SPI) completed 154 shots, including a colossal, CG environment of a massive shipyard constructed inside the Himalayas. SPI seamlessly integrated these digital set extensions with live-action plate photography. John Haley, SPI CG supervisor, said, "Maya allowed our modelers to build nine one-kilometer-long ships complete with thousands of passengers, hundreds of ship workers and dozens of vehicles. In addition, our modeling team created several square kilometers of rugged terrain high in the mountains and relied on the layout and animation capabilities in Maya to bring these enormous fully CG scenes to life."

Scanline VFX artists created over 100 complex water simulation shots, including an aircraft carrier on a tidal wave crashing into the White House. Scanline VFX's toolbox included 3ds Max, the V-Ray plug-in and a proprietary simulation system, Flowline. "Over 95 percent of our shots were fully CG, and creating them required 1,200 terabytes of disk space. The advantage of 3ds Max is that it can handle enormous data sets and you can just do a lot of the work right out of the box," said Stephan Trojansky, Scanline VFX senior visual effects supervisor.

Evil Eye Pictures delivered 45 green screen and environment shots for "2012." John L. Jack, co-founder of Evil Eye, said, "We used Maya software's particle and fluid effects to create CG snow and CG breath for a key sequence, and to do our environment and matte painting integration work."

About Autodesk

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