

Rendering the Rising

Piranha Relies on renderBOXX for New World Trade Center Film

Piranha, an award-winning motion graphics, design, and VFX house based in New York City, is known for creating innovative visuals for motion pictures, broadcast campaigns, network television, internet, and architecture visualization. The company was founded by Gaspard Giroud (a former architecture student who has since evolved into an architectural visualization and motion graphics creator) and Rob Sabatini, a visual artist who cut his teeth on motion graphics and television.

The Project

In 2011, Piranha was commissioned by Silverstein Properties, the New York real estate development and management firm which holds the lease of the World Trade Center site, to create a short film depicting the completion of The New World Trade Center. Silverstein had first hired the artist in 2006 to create a visualization and, pleased with his work, returned last summer with a much more ambitious project in mind.

“They wanted to create excitement about the development of the World Trade Center site,” Giroud recalls. “They also wanted to tell a little bit of the story of the people who have



Creating Excitement: The New World Trade Center combines live action and CG to create stunning imagery.

been involved in the re-construction—but from the inside. They wanted to show the progress since the beginning and conclude by landing in the future when the project will be completed.”

The short film, aptly titled *The New World Trade Center*, would be a complete Piranha production, with all producing, writing, directing, shooting, and VFX done by the two

year old company. But there was also one obvious caveat: the film was scheduled to premiere in time for the ten year anniversary of 9/11.

The Challenge

With a critical completion deadline approaching, the Piranha team went to work, figuring out detailed logistics in the pre-

production phase, as well as collaborating and conferring with four different architecture firms, the memorial architect, the museum architect, and the landscape architect. “On a project of this size and with so many players involved, acquiring the assets was a tough one, says Giroud.

They also created storyboards which served as preViz for the film. Each storyboard frame provided a quick makeup of the film in Adobe® After Effects®—allowing Giroud, Sabatini and their team to get a handle on the film’s pacing (and to determine whether or not the story was working). Shooting with a RED® camera, they captured sweeping aerial shots and on site footage which presented another set of challenges. “The live action shoot was challenging because of the security limitations and the nature of an active construction site,” says Giroud.

But the biggest challenge for the filmmakers lay ahead.

Even though many of the shots in the finished film were real, just as many were CG shots created with Autodesk® 3ds Max® and rendered in V-Ray®. “The shots required a ton of passes,” says Giroud. “One image may have 15 to 20 layers.”

To further complicate matters, client meetings throughout the process required the filmmakers to present the latest rendered images and scenes for review. In most cases, these weren’t even fully completed images as more passes (and more layers) would continue to be added. As for the “real” footage, even much of it featured multiple compositing of atmospheric layers created in Adobe After Effects and NUKE.

Rendering on this scale, in this time frame, was impossible on desktop workstations already pressed into service creating the visual effects. Around the clock rendering was the challenge, and fortunately for Piranha, they had the solution.

The Solution

In the years prior to the project, Piranha had purchased sixteen renderBOXX modules from BOXX Technologies, creating a formidable render farm that was now in demand more than ever. And although the system was over three years old, its reliability was never in doubt. “North of forty shots were entirely CG and were rendered from extremely heavy scenes,” says Giroud, “but our renderBOXX farm rendered the entire project.”

“It was critical to have that tool—the reliability of the BOXX machines, in order to meet the repeated deadlines of our presentations.”

Featuring dual eight-core Intel® Xeon® E5-2600 series processors, networked architecture, and up to 192GB of RAM, the latest incarnation of renderBOXX delivers outstanding rendering performance for intensive VFX, animation, design, engineering, and architectural visualization workflows. And the new Intel processor technology and slender design of renderBOXX mean that ten renderBOXX modules (160 cores) fit neatly into a 4U rack space.

Piranha’s renderBOXX farm managed to free the teams’ workstations, enabling them to continue to create images and scenes while it was in constant use. “It took no prisoners,”

laughs Giroud. “We would go home to sleep, but the renderBOXX never did.”

According to Giroud, the most important benefits of the renderBOXX farm were its reliability—and the precious time it saved them. “We couldn’t have completed this project without it,” he insists. “It was critical to have that tool—the reliability of the BOXX machines, in order to meet the repeated deadlines of our presentations.”

Thankfully, Piranha met the most important deadline of all when *The New World Trade Center* premiered in September, 2011, to unanimous and resounding praise. The New York Observer said “Silverstein Uses Avatar-Quality CGI to Bring the World Trade Center to Life,” while Gizmodo dubbed it: “The only visualization of the New World Trade Center you need to watch.”

They’re right about that.

See for yourself at <http://www.piranhanyc.com/architecture/the-new-world-trade-center.html>

To learn more about renderBOXX visit:
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