e3d Interactive

With offices in London and Glasgow, United Kingdom, e3d Interactive specialises in creating high-quality 3D computer-generated visualizations and animations for architects, developers and interior designers.

e3d Interactive develops photorealistic still images, interior and exterior animations and interactive presentations, using a variety of leading software applications to generate 3D computer models. The finished products allow the visual communication of projects in their early concept stages helping clients win planning permissions, sell properties and promote developments before completion.

The 3D files created by e3D Interactive are quite often very large, presenting a number of challenges in the realm of data management, not the least of which is design rendering. So when the firm recently sought a new ray-tracing solution, says director Neil Evans, "we needed a ray-tracing solution that could handle the large data sets we create. Several of the software rendering solutions we've used have been unstable, crashing when we try to create a final rendering."

In order to handle the large data sets they create e3d-interactive purchased four 64-bit RenderDrive hardware ray-tracing systems from ARTVPS. Each containing 16 AR350 ray-tracing processors, the RenderDrives offer 3D rendering performance matching that of a renderfarm but without the associated set-up and maintenance costs.

Interactive Rendering

"When we send an image to the RenderDrive, we know we'll get a great image back," Evans explains. RenderDrive's modular ray-tracing architecture enables 3D rendering to be split across an array of chips. Full-frame previews are rendered in seconds, bringing a new level of interactivity to tasks such as lighting set-up, shot composition and material mapping. Each system features capacity in excess of 30 million polygons. "For larger projects, we link the RenderDrives, enabling us to render an image in 30 minutes instead of the two to three hours software renderers would take," says Evans.

Advanced Shaders

e3D creates models in Alias Maya using architectural information from the project developers. RenderDrive's RenderPipe plug-in for Maya provides a special library of lighting, material and shading effects. For a recent canal project, e3D relied heavily on water, lumber and metal shaders available through RenderPipe.
"The RenderDrive shaders are some of the key reasons we bought the systems," Evans says. "We use as many of them as possible on interior renderings, in particular the RPshiny shader." Animation of the final renderings is controlled with Virtual Vertex's Muster, which interfaces with both Maya and the RenderDrive.

Knowing that their ray tracing solution can handle the large architectural visualizations without flinching, e3Di confidently use RenderDrive on a range of projects including the creation of animation frames of a new canal system for the River Carron in Scotland.

ARTVPS