

The Neenan Company

Models, animation created on HP workstations are start of 'Archistruction'



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Robert Lucero, Animation Manager, The Neenan Company

HP customer case study:

HP workstations help improve productivity, fuel growth for The Neenan Company

Industry: Construction engineering

HP recommends Windows Vista® Business

Objective:

Produce 3D models and animation to give a better understanding of the design to The Neenan Company's customers, consultants and internal teams before construction begins.

Approach:

The Neenan Company has moved to HP xw6600 workstations to speed rendering and improve stability in its animation/modeling department.

IT improvements:

- Improved stability
- Ability to take advantage of greater RAM, 64-bit processing and Quad Core Intel processors.

Business benefits:

- More lifelike, photo realistic animations in a fraction of the time.
- Faster rendering speeds for high quality images even with tight deadlines
- Productivity gains



The Neenan Company of Fort Collins, Colo., one of the nation's top 100 design-builders, has created a solution to keep architects and builders on the same page. Archistruction® is Neenan's unique approach to design and construction in which professionals of many disciplines work concurrently, under one roof, entwining design, construction decision-making and budget to create cost-effective design and build solutions which reflect the clients' identity and respect their strategic and capital goals.

"The architect sits next to the construction manager and so on," says Robert Lucero, Animation Manager for Neenan. Even more revolutionary is the role Neenan gives to the customer. "We believe that clients should play an integral role in the design of their buildings," he adds.

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The role of animation

To get the most from customer input, Neenan produces sophisticated animations on HP workstations. Neenan’s animations let customers not only view a building’s interior and exterior, but actually explore every nook and cranny. Using video gaming technology, customers can “walk” through the interior of a project while it’s still being designed, viewing rooms, storage, lighting and layout.

The quality of animation depends on many factors—the time allotted to develop animation, expertise of the designer, and perhaps most important, the power of the hardware and software used. That’s why Neenan recently made the move to HP xw6600 Workstations.

“Being able to support dual monitors is a great advantage for the animators. Our large HP monitor gives us more real estate to look at models, while keeping palettes and tool bars separate on a second monitor.”

Robert Lucero, Animation Manager, The Neenan Company

“A minute of animation requires the system to render 1,800 separate images,” explains Lucero. “In the past, we would link a bunch of computers together, and it would still take hours to render a minute of animation. Sometimes we had to reduce the image quality just to get the job done on time.” One member of Lucero’s staff would routinely suffer three or four computer crashes a day on more complex scenes.

HP workstations to the rescue

The HP xw6600 Workstations have solved both problems. “Our HP Workstations are very stable, and far more productive than our previous computers,” Lucero notes. “Productivity is up exponentially.”

“In rendering, the workstations typically use all of the processing capability and about six gigs of RAM. So we really get a lot of value out of the processing power, and it pays off in faster turnaround.”

Robert Lucero, Animation Manager, The Neenan Company

Neenan has configured the workstations with dual 2.33 GHz Intel Xeon dual-core processors¹, eight gigabytes of RAM, and NVIDIA Quadro FX 3500 graphics cards to support dual monitors, including one 30-inch HP LP3065 monitor. “Being able to support dual monitors is a great advantage for the animators. Our large HP monitor gives us more real estate to look at models, while keeping palettes and tool bars separate on a second monitor.”

The company chose to run 64-bit Microsoft® Windows® XP as the operating system, so that it could take advantage of more RAM in the workstations to speed processing. Lucero says his staff finds HP Cool Tools software, including a tool that tracks RAM and processor usage is especially useful during rendering. “In rendering, the workstations typically use all of the processing capability and about six gigs of RAM. So we see a lot of value in 64 Bit OS and the processing power of Quad Cores, and it pays off in faster turnaround and better quality.”



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In addition, animations can be more detailed and lifelike. “We try to produce high-end animation with advanced lighting characters that move around the space. With the new HP Workstations, the realism and detail we can give someone even on a short deadline is much greater. Now we can produce scenes that look photo realistic in a shorter duration.”

“RGS is a good example of how HP listened to us and stepped up to address our needs. We told them about problems we have with employees working away from our office and not wanting to send systems all over the country; so they provided us with this very powerful solution that no one else offered.”
Robert Lucero, Animation Manager, The Neenan Company

Animation powers virtual building

Neenan’s four animators use Autodesk 3D Studio Max software to produce routine animations. They use Autodesk Revit for the company’s V-Build (for Virtual Build) service. “We get the structural engineer, project architect and the client together and have an intense work session. We’ll design and model a building all in one day, and at the end of the day, we will guarantee a price to build that structure,” Lucero says. We call this our CDP (creative design process) and that’s unique to this company.”

To enable its employees to work almost anywhere, the company also uses HP Remote Graphics Software. RGS allows Neenan designers to work from home or an HP Business Notebook PC on the road, logging into and accessing their workstation to work virtually, taking advantage of all the workstation’s processing power.²

HP steps up

“RGS is a good example of how HP listened to us and stepped up to address our needs,” Lucero says. “We told them about problems we have with employees working away from our office and not wanting to send systems all over the country; so they provided us with this very powerful solution that no one else offered.” In addition, RGS enables real-time collaboration. Teams can see drawings and animations over long distances in real time.

The company’s initial experience with HP xw6600 Workstations was so positive, Lucero notes, that it elected to replace older computers used for CAD design with HP xw4400 Workstations.

Neenan has contracted with HP for hardware repair, though the workstations have been trouble-free thus far. Neenan also has access to self-repair videos and animations on line, HP Instant Support online chats, and a variety of other services.

Customer solution at a glance

Primary applications

- 3D modeling software
- Video game development

Primary hardware

- HP xw6600 Workstations
- HP xw4400 Workstations
- HP LP3065 monitor
- HP LP2465 monitor

Primary software

- Autodesk 3D Studio Max
- Autodesk Revit
- HP Remote Graphics Software
- HP Cool Tools
- Virtools

HP Services

- HP hardware repair
- HP Total Care

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These are available through HP Total Care, a broad portfolio of support, services and programs designed to help businesses choose, use, and protect their HP hardware, and ultimately transition to new technology when the time comes.

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says Lucero. "Animations we produce on HP workstations are often critical to landing the design and construction work. They are fueling growth within our existing market, and helping us to expand throughout the country."

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¹Dual/Quad/Triple Core is a new technology designed to improve performance of multithreaded software products and hardware-aware multitasking operating systems and may require appropriate operating system software for full benefit. Not all customers or software applications will necessarily benefit from use of this technology.

64-bit computing on Intel architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. See www.intel.com/info/em64t for more information.

²Wireless access point and Internet service sold separately. Availability of public wireless access points limited.

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