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—Terry Dale, vice president of operations, Starz Animation, Toronto, Canada

HP customer case study: Starz Animation produces huge data sets faster and saves staff time with leading-edge HP Workstations and LCD monitors

Industry: Computer animation

Objective:

Improve processing power of struggling network and workstation hardware, plus replace second-hand CRT monitors with LCDs that render color more accurately

Approach:

Deploy HP Workstations, along with new HP DreamColor monitors, to improve the efficiency of production staff, and install core HP switch to accelerate data transfer companywide

IT improvements:

- Impressive speed improvements for some applications
- 10-bit color signal path between video card and monitor
- Workstation downtime to date has never exceeded 24 hours
- Quick and easy installation of main core switch

Business benefits:

- The equivalent of several days in IT staff time per week reclaimed from monitor calibration
- Annual switch support and maintenance cost reductions
- Substantial savings per year because of increased workstation availability
- Better color rendering means better final animation product



Technology is rapidly redefining movie animation. Modern computer-generated imagery (CGI) brings to life three-dimensional characters that are so plausible viewers may sometimes be unable to differentiate frames shot with a camera from those that were computer-generated. But as animation quality improves, so does the volume of CGI data that filmmakers process.

That's why Toronto-based Starz Animation, which specializes in CGI production of full-length theatrical features, is always on the lookout for new technologies. “Our industry is extremely technology-hungry,” says Terry Dale, vice president of operations. “In the past 15 years, we’ve seen massive jumps in the complexity of both the look of animated films and the way we’re doing productions. Even five or six years

Customer

About Starz Animation

Located in Toronto, Starz Animation specializes in creating animated full-length feature films. The latest project it completed was "9," a futuristic movie produced by Focus Features and Tim Burton released on September 9, 2009.

To learn more, visit

www.starzanimation.com

ago, our total data storage for a CGI production was about a terabyte of data, whereas today we use 150 terabytes for a single project."

Faster application performance

Production cycles for Starz Animation projects last from 18 months to two years. "Once we've started a massive project, we try to avoid changing hardware or software because of the problems we could introduce into the production pipeline," Dale says. "However, as we neared the end of our latest project—a Tim Burton movie called '9'—it became more than our hardware could handle." The animation staff used workstations by another manufacturer, which began struggling just to load the film's data sets. "We didn't have enough RAM or CPU horsepower to do what we needed to do," Dale explains.

"HP does not roll out equipment prematurely. A lot of vendors now sell souped-up machines that blow up because they are pushing the technology too hard."

Terry Dale, VP of operations, Starz Animation

To give the production department more processing power, Starz Animation brought in HP xw4600 Workstations. "They have single quad-core processors, 8 GB of RAM and a 64-bit operating system, and they flew through the data," Dale reports. The film's editing team received HP xw8600 Workstations, while the lighting and effects department received HP xw6600 Workstations.

Even more recently, the lighting team deployed 50 HP Z600 Workstations with quad-core Intel® Xeon® E5530 2.40GHz processors and Intel® QuickPath Technology. "Our lighting department is the final step



in the production pipeline, so they load the complete data sets," Dale explains. "We give them as much horsepower as we can. With the HP Z600 Workstations, we've seen an impressive increase in speed for those applications that are well-suited to a multicore environment."

Saving IT hours and money

HP's warranty is a major benefit of the workstations. "We're running machines 24x7, so downtime costs us money," Dale says. "We have a full three-year warranty. If there is a problem with a workstation, HP sends a tech out within 24 hours.¹"

The NVIDIA Quadro FX 4800 graphics cards with the HP xw6600 and Z600 Workstations were another selling point. "We don't use anything but NVIDIA graphics cards, and we're more comfortable with

Windows®. Life without Walls™. HP recommends Windows.

Customer solution at a glance

Primary applications

Personal workstations/networking

Primary hardware

- HP xw4600, xw8600, xw6600 and Z600 Workstations
- HP DreamColor LP2480zx Professional LCD Displays
- HP ProCurve Switch 8212zl
- HP Compaq 6710b and 6730b Notebook PCs
- HP Compaq 8510w Mobile Workstations
- NVIDIA Quadro FX 4800 graphics cards

Primary software

- Microsoft® Windows® XP Professional 64-bit
- Autodesk Maya, MotionBuilder and Mudbox
- eyeon Software Fusion compositing software
- Adobe® Photoshop®, Premiere and Illustrator®
- mental images mental ray rendering software
- Side Effects Software Houdini 3-D animation software
- RealFlow fluid simulator
- SyFlex cloth simulator
- Avid Film Composer video editing software

HP because of their close relationship with NVIDIA,” Dale says. A 10-bit color signal path connects the Quadro graphics cards with new HP DreamColor LP2480zx Professional LCD Displays. “We were able to put together a complete 10-bit color HP solution very quickly, and it worked out of the box,” Dale adds.

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Terry Dale, VP of operations, Starz Animation

Before upgrading to the DreamColor monitors, Starz Animation relied on refurbished CRT displays. At the time, their contrast ratios and depth of color rendering were superior to LCD alternatives, but they broke down frequently and required recalibration every other day. “DreamColor is the first LCD technology to display the full color gamut of the CRTs, plus colors outside of the CRT world,” Dale says.

Better yet, he adds, “the HP DreamColor monitors hold calibration for three months, so our IT team is saving a huge amount of time.” Previously, as many as 90 monitors a week needed recalibration, at about

25 minutes per monitor. Now an average of only one monitor a day needs recalibration. “The DreamColor displays have been fantastic,” says Dale.

HP across the board

Starz Animation is benefiting from HP technologies throughout the company. It recently replaced its core switch by another vendor, which was having trouble handling bandwidth demands, with an HP ProCurve Switch 8212zl. “We were paying more in yearly support and maintenance costs than the new switch cost,” says Dale. “What really intrigued me was the fact that the HP switch has a lifetime warranty and no maintenance charge.”

“With the HP Z600 Workstations, we’ve seen an impressive increase in speed for those applications that are well-suited to a multicore environment.”

Terry Dale, VP of operations, Starz Animation

HP partner Seven Group, which has advised Starz Animation on technology for about four years, completely configured the switch. “When it showed up here, we unplugged the old switch, pushed this one in, plugged everything back in and turned it on,”

Dale reports. "Replacing the central core switch is usually pretty nasty, but with Seven Group's help, we had a quick and easy installation."

The production coordinators at Starz Animation, who are on the move around the production floor all day, access project management software via HP Compaq 6710b and HP Compaq 6730b Notebook PCs, and HP Compaq 8510w Mobile Workstations connected to a wireless network. And the company may soon consider HP server blades for data storage.

"What we like about HP machines is the build quality," Dale says. "No other manufacturers compare. We also like that HP does not roll out equipment prematurely. A lot of vendors now sell souped-up machines that blow up because they are pushing the technology too hard. When we buy HP equipment, we know that it will run."

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