

Ridgway Area School District

HP workstations deliver performance,
reliability for high-end CAD applications



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HP customer case study: Ridgway School District equips CAD lab with HP workstations to deliver professional performance, high reliability

Industry: Education

HP recommends Windows Vista® Business.

Objective:

Support CAD computing and other high-end applications in a public high school

Approach:

Ridgway Area School District in Pennsylvania replaced aging desktop PCs with HP xw4550 workstations

Educational benefits:

- Improved reliability — rather than experiencing daily crashes, students work without interruption
- 4X increase in processing delivers substantial performance improvement in CAD applications
- CAD classes can cover more material over a semester because lab time has become more productive



When the older desktop PCs in the computer-aided design (CAD) lab at Ridgway High School began crashing and freezing up day after day, Technology Director Shaun Charles knew where to turn: HP. He consulted with CCL Technologies, his local HP partner, and ordered 18 HP xw4550 workstations to replace the PCs.

“Everything just runs smoother on the HP workstations,” Charles reports two months later. “The computers aren’t crashing. Kids aren’t losing their work. In fact, they’re able to get more work done in less time, which allows the class to move on faster to learning new things. It’s a classic example of how critical it is to have the right technology in education.”

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Screen image courtesy of Autodesk

Ridgway Area School District, which has roughly 1,100 students, is located in one of northwestern Pennsylvania’s most scenic mountain communities. It boasts a vibrant educational program that enables some 80 percent of Ridgway High School graduates to pursue post-secondary education. Standard and Poor’s noted that Ridgway is one of 29 districts in Pennsylvania that exceed state averages in standardized testing and “may serve as a valuable source of effective strategies and practices for other school districts in Pennsylvania that are looking for ways to improve student performance.”

Unmatched reliability

Charles joined the district in 2005, taking on responsibility to plan, maintain, and support educational technology and the computer network for the entire district. He has only one assistant, so reliability is paramount in his evaluation of new technology.

“When I started rebuilding the district’s network, I began replacing existing technology with HP products,” he explains. “Over the past two years, we’ve had near total reliability with our HP technology. So it was a good fit given our minimal staffing, to be able to get technology that I

could set up, start running and forget about.”

For the district’s basic infrastructure, he chose a server-client approach. It includes HP ProLiant servers and some 250 HP 5000-series thin clients. For network storage, he added three HP StorageWorks Modular Smart Arrays (MSA).

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“Our HP virtual infrastructure delivers all the functionality that students require, and the server-client approach cuts way down on the time and money required for support,” he says. “If there’s a problem, I can take care of it from my office over the network, as opposed to having to run out to look at a desktop PC. In two years, I’ve only had one support call to HP and CCL.”



HP recommends
Windows Vista®
Business.

HP workstations recommended for CAD software

With that track record, Charles was predisposed toward an HP solution when he faced the need to refresh technology for the computer-aided design lab. Would the district extend virtual computing to the lab, or find another solution in newer desktop technology?

He asked Laura Freas at CCL Technology for a hardware recommendation, and also checked system requirements for the two primary CAD programs used at the school—Pro/ENGINEER, a 3D CAD modeling program; and SoftPlan, an architectural design program. “Pro/ENGINEER specifically recommended the HP xw4550 Workstation,” Freas says.

“That was the hardware we had actually been leaning toward already,” he says, “so that cemented my decision.” He contacted Freas to get a firm quote on workstations configured specifically for Pro/ENGINEER’s requirements.

The 18 workstations purchased by Ridgway are minitowers that feature AMD Opteron 1216 dual-core 2.39 GHz processors, NVIDIA Quadro FX570 video cards, 2GB of RAM, and 80 GB hard drives. “Storage on the workstations doesn’t need to be huge because

students all have network accounts and store their files on our network storage arrays,” he explains.

The workstations are currently equipped with single monitors. But the ability to add a second monitor—emulating the workstation configuration enjoyed by professionals in the world of CAD—is being considered for the future.

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Charles developed the master software image, installed it to all the workstations, and deployed them himself over a weekend. Then he turned the lab over to the teacher, knowing he could “walk away and forget it.”

Customer solution at a glance

Primary application

Computer-aided design

Primary hardware

• HP xw4550 workstations

Primary software

- Pro/Engineer (3D CAD modeling)
- SoftPlan (architectural design)

HP recommends
Windows Vista®
Business.

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Better reliability, faster performance

Results have been excellent. "The CAD applications run better and faster on our HP workstations," he says. "It seems as though the speed has quadrupled." Because the workstations are so much faster, students can get more work done. But the biggest gain is reliability. "The programs run day in and day out without crashing, without hanging up, without any of the problems we used to have," Charles says.

In fact, he's now considering equipping two more high school labs—one dedicated to imaging (with Adobe® Creative Suite 3 applications) and web page design, the other to teaching Visual Studio—with HP workstations.

"They would definitely get much better performance from the workstations, and because of that, I think the

useful life would be extended a bit," he says. His plan is to refresh the district's technology on a five-year cycle in most cases.

Given the district's experience with HP reliability, Charles has opted to stay with HP support at the base warranty. If a problem develops, he simply calls CCL Technologies to order a part, and installs it himself. "And so far, I've only had to do that once."

Charles does appreciate the value of having technology partners like HP and CCL. "My time is limited, so it's great to know I can call HP and CCL for help in putting together a solution, and knowing that I'll get good advice and ultimately, good technology," he says. And, as the district's technology requirements grow, he can rely more on HP and CCL expertise. "That all makes my life a lot easier."

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