Colorado high school moves students ahead of the pack

Using HP workstations, high school students learn professional digital media skills

hp

Smoky Hill High School

"I want these kids to get a feel for pushing their talents to the limit and managing projects in real-world conditions. The students love the challenge, especially when they have access to high-end equipment like HP workstations."

– Dan Cornell, digital media arts instructor, Smoky Hill High School

HP customer case study:
High school students use HP workstations to develop digital media projects

Industry: Education

Objective:
To better prepare its students for college and careers in digital media, Smoky Hill High School needed powerful, reliable computing performance

Approach:
School acquired HP workstations

IBusiness benefits:
• Premium technology attracts and motivates students
• Students are better prepared for college and careers
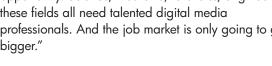• Computer slowdowns are virtually nonexistent

According to the school's administrators, Smoky Hill High School in Aurora, Colorado, is one of only a handful of high schools in the nation to offer instruction in three-dimensional digital animation.

For Smoky Hill students, that advantage leads to accelerated learning and a fast-track to careers in digital media.

"We have seniors working at internships before they ever enter college," says Dan Cornell, digital media arts instructor at Smoky Hill. "Some of my students graduate high school with a level of proficiency comparable to recent college graduates."

The use of HP workstations supports that proficiency. Cornell notes, "HP workstations are standard in the film industry. They're also used at architectural firms and engineering labs and design shops all over the world.
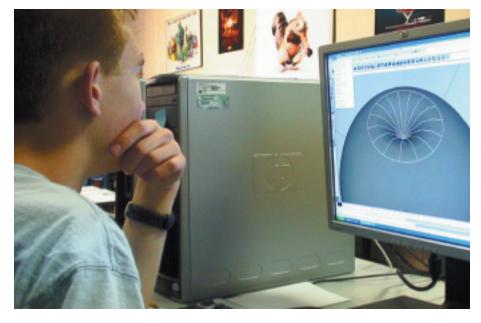
"Many of my students dream of careers in video gaming or film, but I remind them that those industries are tiny compared to what's out there. It's a world of opportunity. Science, medicine, forensics, engineering— these fields all need talented digital media professionals. And the job market is only going to get bigger."

HP workstations deliver power, reliability
HP workstations are powerful enough to deliver fast renderings, with virtually no slowdowns or lag time – a feature that Cornell says is invaluable to digital media, especially digital animation.

"Our previous computers had a lot of trouble with rendering. Students would sit and wait for their renders to be finished, and they couldn't turn to other projects

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or tasks until the render process was complete," says Cornell. "There was a lot of down time. So we switched to HP workstations, which can handle high-end rendering and real-time dynamics."

Equipped with over 2 gigabytes of RAM and an NVIDIA QuadFX graphics card, Smoky Hill's HP workstations run powerful design software, render quickly and shorten project timelines. Smoky Hill has paired each workstation with an HP 20-inch Flat Panel Monitor, which offers user-comfort features such as anti-glare coating and flicker-free screens. "The students love the size and capability of the monitors," Cornell notes. "The color and resolution are excellent."

Philip Niemi, a senior at Smoky Hill, works on most of his digital media projects using AutoDesk Maya, one of the design world's most powerful tools. Both Cornell and Niemi note that the school's previous computers were unable to efficiently run Maya.

"Just a dramatic leap forward," comments Niemi, when comparing the previous computers to the new HP workstations. "Maya eats up a lot of memory and system processes, but the HP workstations are awesome. They can run drawings with huge poly counts. No problems, no slowdowns. That wasn't even remotely possible with the old system."

Challenging students with real-world scenarios

Cornell wants his students to experience situations that digital media pros encounter in the working world. To help accomplish that, he challenged his top students in the school's Digital Evolutions curriculum to participate in the SkillsUSA digital media competition. Held in Colorado Springs, the event brings together students from across the state to compete for prizes and scholarships.

Students competing in the digital media category were permitted to bring computers with them. Having the HP workstations on hand helped the students produce award-winning work, says senior Di Tran.

"We only had eight hours to come up with animated designs for a fictional toy company. It was basically a simulation of an advertising campaign," he says. "Rendering is a major issue when you're pressed for time. Using the HP workstations, we were able to manage everything really well and develop a finished product. The last two hours of the competition are probably the most intensive work I've done yet, but it paid off. We earned a ticket to the national competition."

Graduate recognizes the HP advantage

Smoky Hill's HP workstations will help current and future students tremendously, adds Patrick Vidal. He should know. The Smoky Hill graduate and Digital Evolutions alumnus attends the University of Colorado and also works as a design intern with Knott Laboratories. Vidal learned the basics of digital media using Smoky Hill's previous PCs. He learned firsthand the real-world impact of using an HP workstation at his internship.

"We recently got a rush job from a client, and employees had to work all night to pull the project together," says Vidal. "We used an HP workstation for the bulk of the design work including rendering. We were able to render our frames much faster than if we had used one of the other PCs, and we got the project done just before deadline. If not for the HP workstation, we wouldn't have made it."

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