*"HP treated us much differently than other vendors. The Workstation team provided a dynamic hardware and software solution. They immediately introduced us to some of their best clients and vendors, and provided 12th-hour customer care that made the program successful."*
—Paul Conner, Director, 3D Graphics and Animation Program, University of Colorado at Denver

**HP customer case study:** The University of Colorado at Denver's 3D Graphics and Animation Program uses HP Workstations to teach curriculum

**Industry:** Education

HP recommends Windows Vista® Business

### Objective:

Build a digital animation program that rivals the best art school programs in the country by making education, not technology, the focus of the program

### Approach:

Deploy HP Workstations—most recently, the HP xw8600 Workstation with NVIDIA Quadro FX4600, PCI-E cards and Ultra320 SCSI drives

### Educational Benefits:

- A 3D Graphics and Animation Program that mirrors training at the best art schools, while also offering students a well-rounded education

- Technology that is "transparent" to users, leaving faculty and students focused on creativity, digital art and storytelling

- Inspired students, trusting the technology enough to experiment

- A program that will graduate students experienced on same technology used in the real-world work environment
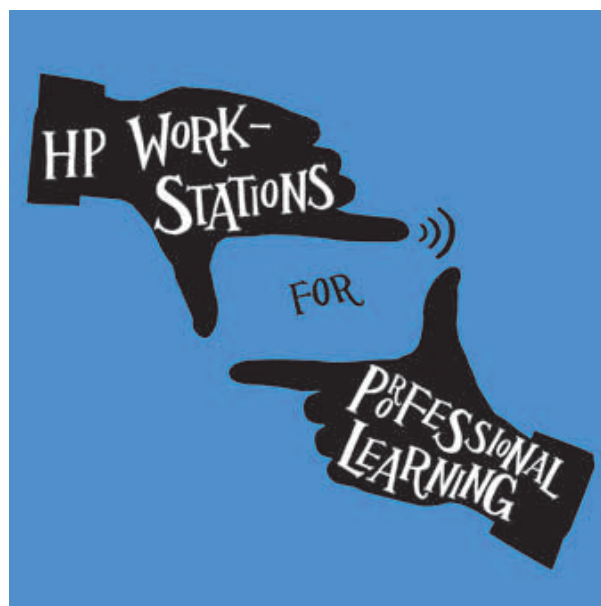


At the University of Colorado at Denver, students enter the 3D Graphics and Animation program with visions of creating the next *Shrek* or *Matrix* movie. Program Director Paul Conner nurtures that dream while also guiding students toward a four-year liberal arts degree.

When Conner was asked to create the CU Denver program and equip the Digital Animation Center lab, he knew he wanted fast, easy-to-use Workstations that would support student creativity. He also wanted Workstations that would run the software that young animators needed to learn—whether they ultimately worked in film, science, engineering, business or medicine.

### Animation industry experience leads CU to HP

"I was born and raised a Mac guy," Conner says. "My first thought was of a room filled with new Macintosh products. But that was about the time I was talking to a major animation studio. They had just finished getting all of their HP Workstations and told me that they were running great." Conner heard the same story at other studios.

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*"Yes, it was clear that they wanted to sell Workstations, but they also asked the right questions about our goals and objectives. That helped convince us they were guiding us toward the best solution."*
Paul Conner, Director, 3D Graphics and Animation Program, University of Colorado at Denver

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Conner also learned that HP Workstations were certified to run Alias Maya and Adobe® products, the primary software he wanted to use in the Digital Animation Center. In addition to the certification tests done by Alias and Adobe, HP had performed extensive tests on its Workstations' configurations to ensure software compatibility.

Conner's personal test of HP machines convinced him that HP machines belonged in the lab. The best interests of his students clinched the decision, he says. "We have an obligation to provide the highest-quality instruction and the highest-quality equipment being used by animators so that our students are employment-ready when they graduate."

Today, all four labs at CU have HP Workstations. The HP xw8600 Workstation is the newest model, beefed up with NVIDIA Quadro FX4600, PCI-E cards and Ultra320 SCSI drives.

"The HP Workstations run great. They're very reliable," says Conner. "Putting USB and FireWire ports on the front of these machines was the best thing HP ever did for the students. Now they're not crawling around the back of machines to plug in the hard drives and USB flash drives they bring to class. The tool-less chassis is just as important for me and the staff."

### Remote Graphics Software improves teaching

Ask Conner what HP product excites him most these days, and he'll talk about software, not hardware. When he was provided with HP Remote Graphics Software to test, Conner redesigned the labs to eliminate projectors completely. He's since contributed ideas to future product iterations.

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*"The relationship with the HP Workstation group has been absolutely a two-way flow. HP has invited CU faculty to partner with them on ideas developed at CU. This really has become a partnership."*
Paul Conner, Director, 3D Graphics and Animation Program, University of Colorado at Denver

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HP Remote Graphics Software enables real-time remote access to Workstation desktops and information sharing over a standard network.

"The software has changed our lives. With the projectors it was hard for students to pay attention to the screen, take notes and do work on their computers at the same time. Also, in a class where color was an

HP recommends Windows Vista® Business

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"The learning experience is better," explains Conner. "The superior image quality allows instructors to convey exactly what they want. "There is no degradation whatsoever in the image on the student machines. They're seeing the same colors that I see."

Collaboration across the room or across town benefits both students and the staff, Conner says. "A few days ago, a student in the lab called me at home when he was having a problem with a project. From my home PC, I took control of his machine to help him through the project. That's very powerful."

**Why HP**
"From the start, HP treated us differently than other vendors do," says Conner. "The Workstation team instantly embraced what we were trying to accomplish and provided a dynamic hardware and software solution. They immediately introduced us to some of their best clients and vendors, and provided 12th-hour customer care that made the program successful."

Conner says HP people also asked the right questions. "Yes, it was clear that they wanted to sell Workstations, but they also asked the right questions about our goals and objectives. That helped convince us they were guiding us toward the best solution."

Conner's advice for other universities considering starting a digital animation program: "Include HP at the top of the vendor list for digital content creation hardware and solutions. HP delivers equipment that is superior for this kind of program, and HP Workstations are being used by some of the top digital content creators in the country."

As an educator, he also appreciates HP's investments in education. "Plus, the relationship with the HP Workstation group has been absolutely a two-way flow," he says. "HP has invited CU faculty to partner with them on ideas developed at CU. This really has become a partnership."

important issue, the projectors altered the image so much that students weren't seeing what the instructor was describing.

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"Now the students log on and the image from my machine appears on theirs. The students use the 23-inch diagonal HP L2335 flat panel monitor, and the instructors use the 20-inch diagonal L2035 HP flat panel monitor. About three-fourths of the image on their machines is taken up with the image from my machine. They use Wordpad on the other one-fourth of the screen to type their notes. The benefit is that they don't have to move their eyes from the screen.

**HP Remote Graphics Software**
HP Remote Graphics Software is an advanced utility that lets users remotely access and share their graphics Workstation desktop. The core of the technology is a smart digital compression method and rapid image-processing algorithm, making 3D graphics access possible.

With HP Remote Graphics Software, users are able to:

• Remotely access 2D and 3D graphics Workstations

• Access applications and different platforms such as Windows®, Linux and HP-UX

• Perform multi-user remote collaborations

Contact the
HP Reference2Win
Program, 281-514-5755
for more information.

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