

# ANIMATED ABOUT EDUCATION

Tomorrow's animators train on HP Workstations at Ringling College of Art and Design



"The HP xw9400 Workstation provides students with faster feedback on their work. Because that feedback is faster, students have the opportunity to take more creative chances and try different avenues."

—Jim McCampbell, Department Head, Computer Animation, Ringling College of Art and Design, Sarasota, Fla.



**HP customer case study:** HP Workstations provide state-of-the-art teaching tool at Ringling College of Art and Design

**Industry:** Higher education

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## **Objective:**

Provide computing hardware that supports the best learning experience for students

## **Approach:**

Deploy HP xw9400 Workstations with Dual-Core AMD® Opteron 2218 processors and HP LP3065 30-inch diagonal widescreen LCD monitors

## **IT improvements:**

- Workstation speed provides more time to test creative options
- Experience with HP hardware makes animation graduates more marketable and supports an easier transition into a professional environment
- Reliable hardware requires less IT support

## **Business benefits:**

- Workstation quality attracts prospective students and encourages collaboration
- Student achievements include frequent Academy Awards and SIGGRAPH Electronic Theater competition recognition
- HP Workstations contribute to excellent record of placing animation students in premier professional positions

With its computer animation students regularly winning student Academy Awards and placing work in the prestigious SIGGRAPH Electronic Theater competition, the four-year Ringling College of Art and Design is a prime recruiting ground for the country's top feature film animation and gaming companies.

Excellence in arts education is nothing new at Ringling, founded in 1931. Nor is the school's reputation for excellence limited to computer animation. Ringling offers 14 art area majors—such as Illustration, Graphic & Interactive Communication and Advertising Design—serving more than 1,200 students from 43 states and 31 countries.

To attract students and maintain the quality of instruction, particularly in computer animation, Ringling needs computing hardware commensurate with its students' raw abilities and ambition. That's why



“Looking at our HP xw9400 Workstations with Dual-Core AMD Opteron 2218 processors, some new faculty members recently told me we have the best equipped computer labs they’ve ever seen. I’ve heard the same comments from corporate recruiters.”

Mahmoud Pegah, Director of Institutional Technology, Ringling College of Art and Design, Sarasota, Fla.

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Ringling makes it a policy to choose the same type of Workstations used at feature animation studios and high-end gaming companies, says Jim McCampbell, Department Head of Computer Animation.

In the late ‘90s, McCampbell and Ringling’s Director of Institutional Technology, Mahmoud Pegah, saw those industries moving away from proprietary system-based Workstations and servers and toward industry-standard technology. Ringling joined the movement. Pegah replaced the UNIX®-based Workstations on-site when he arrived at Ringling College with 86 architecture HP Workstations to ensure the growing academic area would be able to accommodate expanded advancements in 3D animation technology as well as increased needs for rendering. “Rendering is a compute intensive type of application, and requires a cluster of high-performance network computers and Workstations. We looked at hardware from several different vendors and concluded that HP was going to serve us best.”

The HP Workstations bought for the classroom eight years ago eventually were assigned to Ringling administrators. That’s typical at Ringling: Students get the best gear, and they get plenty of it. Today, Ringling Computer Animation labs are equipped with the most advanced Workstations on campus—students in the major can take advantage of about 150 HP xw9400s with Dual-Core AMD Opteron 2218 processors<sup>1</sup> and a rendering farm with about 350 nodes. “These Workstations have been wonderful,” McCampbell says. “The more that becomes possible, the more we ask.”

The school boasts a computer-to-student ratio of 1:1 in the classroom. Those facts hit home when prospective students visit the school. “They are blown away by the quality of the technology they see in the labs. They imagine themselves sitting in front of an HP xw9400 Workstation and creating superb work,” McCampbell says.

#### **Faster Workstations mean more creative opportunities**

While technology helps Ringling recruit students, McCampbell emphasizes that its real purpose is to help faculty teach students to develop their talents, test new ideas and be productive when they enter the job market. “Recruiters appreciate that we have HP Workstations because it makes for a much easier transition for the students,” he adds. “They can move right from one environment to the next, and they don’t really notice a whole lot of difference.”

In fact, the HP xw9400 Workstations used by aspiring 19-year-old animators at Ringling are the same models found at major animation studios. Whether they’re college freshmen or seasoned veterans, animators need reliable, fast technology to explore their creativity and produce their best work, says McCampbell. “The HP xw9400 Workstation provides students with faster feedback on their work. Because that feedback is faster, students have the opportunity to take more creative chances and try different avenues.”

That fast feedback arrives even when students are running multiple applications, including computer-intensive software such as Maya, Shake, Painter, BodyPaint 3D, RenderMan, Adobe® Photoshop®, Premiere and Encore. “It’s not uncommon for students to be running four or five different software packages at the same time,” McCampbell says. “Sometimes they’ll have two copies of Maya running simultaneously, even though I don’t recommend it.



Then they'll be painting textures in Photoshop and dropping motion tests into Premiere. Then they'll be playing a DVD movie for reference. That used to be a tall order for any Workstation, but it goes smoothly with the HP xw9400."

#### **Astonishing performance keeps them in class**

McC Campbell recognizes the advantages of HP's partnerships with AMD, NVIDIA and others in producing high-performance, stable Workstations. "The Dual-Core AMD Opteron processor is extremely important because of the way it accesses memory," he says. "Each processor has its own memory. There is no bottleneck on accessing memory, and that's extremely important in animation applications."

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*"The faster and more capable the hardware is, the more creative latitude the artist has. With the HP xw9400 Workstation, our students can try a lot more creative ideas in a shorter span of time and therefore have a more powerful learning experience."*

Jim McC Campbell, Department Head, Computer Animation, Ringling College of Art and Design, Sarasota, Fla.

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"The combination of the dual AMD processors and the NVIDIA Quadro FX 3500 graphics card in the HP xw9400 Workstation gives us a very smooth solution," he continues. "Everything calculates very quickly, and we don't have to deal with any screen refresh problems. What HP has done is take a sensational platform and make it astonishing. The HP xw9400

Workstation is an aesthetically pleasing machine and it's so quiet that you don't even notice it when you're working on it. It's transparent to the artist, which is just the way it should be."

The blend of Workstation speed, quietness and quality also accomplishes something that Pegah doesn't think would be possible with lesser hardware: It attracts students to the animation lab to do their after-class projects. That's important, says McC Campbell. "When students work on projects on their home PC, they work in a vacuum, and that removes the opportunity to network with other students and to be inspired by the work on the screen of the person sitting next to them. We win as an institution because those students will learn more and go further than their counterparts who do projects at home and just come to class when they have to."

#### **Reliability means easier IT management**

"We are very excited about the new xw9400 Workstations from HP, in particular their compelling performance, reliability and user interface capabilities. With the rock solid Dual Core AMD Opteron foundation, HP xw9400 makes an already sensational platform astonishing. The HP xw9400 family of solutions represents a leap forward, which will enable a new generation of phenomenal animation projects. With a massive amount of computing power at its core and its memory access protocol, this new computing environment is the most exciting modern system we have seen in recent memory," Pegah says. "Ringling has an IT staff of 22

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## Customer solution at a glance

#### **Primary applications**

Student use in art and design school with sophisticated computer animation course offerings

#### **Primary hardware**

- HP xw9400 Workstation with Dual-Core AMD Opteron 2218 processor<sup>1</sup>
- HP LP3065 30-inch diagonal widescreen LCD monitor

#### **Primary software**

- Maya
- Shake
- Painter
- BodyPaint 3D
- RenderMan
- Adobe Photoshop
- Premiere
- Encore

people. It takes just two people to manage all of the HP Workstations and a render farm of more than 350 servers. That's outstanding."

HP servers primarily comprise that render farm, further accelerating student projects. That speed ultimately contributes to the creativity of student work, but the reliability and management advantages set the HP servers apart, says Pegah. "The reliability of the HP servers contributes to our smooth running infrastructure and the ease of manageability helps us to operate efficiently."

Pegah likes HP hardware for another reason—the people who stand behind it. "HP service is second to none," he says. "With one phone call, I get answers. If a Workstation component needs to be replaced, I get a return authorization and we have the replacement part on campus the next day. Another benefit is that



HP people are continuously in touch with us, letting us know what's on the technology roadmap and helping us when we ask for it."

McC Campbell prefers dealing with HP for still another reason. "A lot of computing companies tend to neglect the arts. HP doesn't. Around here we believe art is the future. We appreciate the contribution that HP is making to the future of these young artists."

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<sup>1</sup>This system requires a separately purchased 64-bit operating system and 64-bit software products to take advantage of the 64-bit processing capabilities of AMD technology. Dual/quad/triple-core processing available with AMD technology is designed to improve performance of this system. Given the wide range of software applications available, performance of a system including a 64-bit operating system and a dual-core processor will vary. AMD's numbering is not a measurement of clock speed.

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<http://www.microsoft.com/windowsvista/getready/hardwarereqs.mspx> and

<http://www.microsoft.com/windowsvista/getready/capable.mspx> for details. Windows Vista Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit [www.windowsvista.com/upgradeadvisor](http://www.windowsvista.com/upgradeadvisor).

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