

Case study

Hillsborough County Public Schools



Game design academy chooses HP Z Workstations for real-world experience

Industry

K12 education

Objective

Challenge high school students interested in game design and animation

Approach

Hillsborough County Public Schools has created magnet programs offering technology-based, specialized courses of study, utilizing industry-standard technology solutions including HP Z Series Workstations

IT matters

- Independent Software Vendor (ISV) Certification ensures HP Z Workstations are high performance platforms to run demanding professional software used in the game design industry
- Standardizing on HP Z Workstations simplifies the technology environment and support needs

Business matters

- Using industry-standard software and hardware improves student engagement and enables complex processing and problem-solving
- HP Z Workstation reliability and durability withstands student environment
- 5-7 year lifecycle delivers long-term value to public school system

HP recommends Windows.



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Hillsborough County Public Schools in Florida is one of the largest school districts in the state, and has high expectations for students. To achieve them, the district has launched magnet schools with challenging academic programs, preparing students for college and their subsequent careers. In the district’s Academy of Computer Game Design, students prepare for careers in video game design and animation using industry-standard software running on high-performance HP Z Workstations. The goal: real-world career preparation using real-world tools.

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Video gaming is a young, growing industry requiring fresh faces and new ideas every year. Students in the Hillsborough County Public Schools who find the field enticing as a potential career have a big advantage over students elsewhere: a magnet school offering a rare high school program devoted to teaching game design and animation.

The Academy of Computer Game Design at Middleton High School prepares students to pursue education and careers in the world of video game design and animation. Students learn about programming, graphic design, management and 3D modeling.

Along the way, students can earn industry certifications such as Microsoft Office Specialist, Adobe® Certified Associate or Autodesk Certification. They also learn complex technology skills that can be transferred to other careers, such as database development and management for business systems.

Game designers require a diverse set of skills—the visual insights of an artist along with the technical skills of a programmer—all to be applied in the digital world. Preparing students for such a field requires high-performance, and industry-quality technology.

“Our game design and web development programs involve running some of the most demanding, professional graphics programs, and we need students to be able to execute those programs quickly and reliably,” says Chris Jargo, assistant director of Career and Technical Education for the district. “That’s why we turned to HP and HP Z Workstations.”

Engineering performance

HCPS magnet programs use several models of Z Series Workstations. The district has standardized on HP Z220 Workstations in most computer labs. But for more demanding software, including most applications used in the Academy of Computer Game Design, it has chosen the HP Z400 Series Workstation equipped with Intel® Xeon® Quad-Core processors.

“The HP Z400 Series Workstation is a very high-end computer for a high school student to be using, but with the professional software that is integral to the game design curriculum, we feel it’s absolutely necessary,” Jargo explains. “The Workstations must be able

to run the gaming and animation programs quickly and without freezing up or crashing, or students will be turned off by the experience.”

The game design curriculum involves using Autodesk Animation Academy, which includes Autodesk 3ds Max and Maya; as well as The Games Factory 2 and elements of the Adobe® Creative Suite.

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The Academy also turns to the more powerful HP Z1 Workstation for students working on high-end video projects. “It allows students to work on a 3D model, zoom in and show high-definition graphics that they’re creating,” Jargo explains.

Kim Moore, principal at Middleton High School, says the newest version of the Z1, with a touch screen interface, has given her students what she calls an “Aha!-moment.”

“The kids love the Z1 touch screen because they can use their fingers to move elements around on the screen. They have an immediate, three-dimensional experience,” Moore explains. “It requires a lot of processing to make such powerful programs immediately responsive.”

What Moore likes best is the engineering behind the Z1 Workstation. “I love the way it’s designed,” she explains. “You lift it up and every component in it can be pulled out and replaced with very little trouble, which is wonderful for us because if worse comes to worse, we don’t want any downtime. The fact that we can just pop out one component and pop in another is great!”



“Teenagers are not always the most careful users,” she continues. “So having a computer that’s durable makes life so much easier for us. It allows us to focus our attention and energy on helping our students achieve their dreams.”

Reliability value

Larry Plank, director of K-12 STEM education in the district, says the game design and animation program was designed to give students a real-world experience. “Having a professional-ready, real-life, real-world experience requires the type of technology that we have sought out from HP.”

In part, that’s because of the performance requirements to run professional gaming and animation software. But school officials who run the magnet programs are equally concerned with the reliability, longevity and value that HP Workstations bring to the district.

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Why? Money is tight, so the district expects long lifecycles in order to keep technology for a long time: HP Workstations are expected to

serve in the most demanding curriculums for a 5-7 year lifecycle, with usage from morning to evening.

“If I had five different computers on my campus, I would need more personnel to support them,” Moore says. “With HP, I don’t have to worry. We have one point of contact, and always get a timely response.”

– Kim Moore, principal, Middleton High School

In addition, standardizing on HP Workstations helps the district maximize value in another way: having a single brand of workstation with consistent componentry reduces the complexity of the technology environment.

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For on-site HP hardware support, the district depends on United Data Technologies, the HP partner that supplies HP classroom technology. UDT also stages the computers, arranges for them to be pre-imaged and deploys new Workstations in the schools, freeing the district’s technical staff for other tasks.

HP recommends Windows.

Customer at a glance

Application

Game design

Hardware

- HP Z220 Workstation
- HP Z400 Workstation
- HP Z1 Workstation

Software

- Autodesk Animation Academy
- Autodesk 3ds Max
- Autodesk Maya
- Games Factory 2
- Adobe Photoshop
- Adobe Flash

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The UDT account manager that works with the district participates on a technology advisory board within the school system and understands the vision behind the school and its programs, to bring insight into how HP and its products align with that vision.

“We work with HP and UDT in many different ways,” Moore says. “They are truly collaborators with us in the education of our students.”

“We don’t have a class that simply addresses how to utilize the applications necessary to create a video game,” says Plank. “Our students are learning in a broader context. They’re learning engineering protocol as well as how to utilize software and hardware—the broader range of what will be expected of them when they get to the college campus. We’re hoping to develop a deeper understanding that will apply across many fields.”

Learn more at

hp.com/go/educationworkstation

Education, not skills training

Even in a program that seems to be aimed at satisfying the career orientation of today’s students, Hillsborough County Public Schools works to ensure they are offering a broad-based education that will prepare students not just for a specific career, but for a lifetime.

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