

Case study

TOBB University refreshes design lab for better learning experience



HP Z1 workstations offer flexible, high-performing solution for demanding creative applications

Industry

Education

Objective

TOBB University of Economics and Technology had a fleet of aging, and inflexible workstations. It wanted to find a new, high-performing platform that could handle demanding CAD applications

Approach

Migrated design lab to HP Z1 Workstations, providing optimised performance for CAD applications and environmentally friendly credentials

IT matters

- The HP Z1's modular, all-in-one design make it easily configurable according to specific needs and budgets
- The 27 inch IPS monitor boasts incredible colour fidelity and brings creative projects to life
- The Intel® Xeon® processor and NVIDIA Quadro graphics card make it the perfect fit for demanding CAD applications, enabling real time HD video editing, for example

Business matters

- The HP Z1's stunning display brings vivid colours to life for visual subjects such as advertising, building design, animation and DTP
- Energy efficiency and automatic power save mode helps control costs and reduce the University's carbon footprint
- The HP Z1's quiet operation makes the lab environment more pleasant and makes it easier to conduct classes



“HP has provided us with a robust, flexible workstation platform that can easily handle the most demanding CAD applications. The HP Z1 is also reliable and delivers stunning graphical performance thanks to the 27 inch IPS display and NVIDIA Quadro graphics card.”

– Aydın Öztoprak, assistant professor, TOBB University of Economics and Technology

Modular, all-in-one HP Z1 Workstations handle processor-intensive applications

TOBB University has invested in 25 x HP Z1 Workstations for its design lab. Now students studying Industrial Design, Visual Communication Design, Architecture and Environmental Design can run complex applications easily and without lagging or freezing with the help of NVIDIA Quadro graphics custom-designed for the HP Z1. The HP workstations are also modular, making them easily configurable depending on the different requirements of different disciplines.



TOBB
EKONOMİ VE TEKNOLOJİ
ÜNİVERSİTESİ



Challenge

Creative arts require demanding applications

Established officially on July 1, 2003 by the Union of Chambers and Commodity Exchanges of Turkey (TOBB), TOBB University of Economics and Technology is the first Turkish university to offer co-operative education. The main campus of the university is located in Söğütözü, west of Ankara and consists of Faculties of Law, Engineering, Science, Literature, Economics and Fine Arts. It has almost 3,000 students and its stated aim is to encourage talented young people to remain in the country and contribute to the local economy.

Among the most popular courses on offer at the University are industrial design, desktop publishing, animation and architecture. These subjects are academically rigorous but also require the use of central as well as graphics processor-intensive CAD applications. The university's policy to keep equipment up to date initiated research on possible solutions to answer the university's needs .

"The Workstations were not modular making them inflexible and difficult to upgrade. There were also security issues because the components such as RAM cards within the computer housing were easily stolen," explains Aydın Öztoprak, assistant professor, TOBB University of Economics and Technology. "We wanted to replace them with a modular, all-in-one solution that would be easy to maintain and would be future proof for at least three years."

TOBB University consulted with local reseller and HP Gold Partner Eren Bilgi Islem, which recommended looking at the HP Z1 Workstation. Following a presentation on campus, Öztoprak undertook a comprehensive benchmarking exercise with leading competitors and came to the conclusion that the HP Z1 was the ideal solution to meet the university's needs.

Solution

Elegance and innovation combined

The HP Z1 Workstation is an elegant and innovative all-in-one workstation with a large-screen display, which can be easily modified, while its components can be changed without the need for tools. By pressing a green button on its hinge, the 27 inch IPS screen tilts to a horizontal position and the display opens up to reveal the inner components. Its Intel® Xeon® processor and NVIDIA Quadro graphics card make it the perfect fit for demanding CAD applications.

NVIDIA Quadro K3000M with 2 GB of dedicated fast graphics memory and support for CUDA comes with certification from close to 200 ISVs. Applications such as Adobe Premier Pro, After Effects, VRAY RT, Autodesk 3Dmax take advantage of not only the graphics power but also the CUDA compute power of Quadro graphics to provide incredible speed ups for these applications.

"The HP Z1 Workstation ticked all the boxes for us as a high-performing, customisable PC with a superbly designed all-in-one chassis," adds Öztoprak. "It was also reasonably priced compared to the competition so, following the evaluation process, we ordered 25 units and migrated our design lab."



The migration process was simple and seamless. By creating and replicating a standardised image, it took only five hours for the IT department to get all 25 Workstations ready for action. Now over 600 students enjoy the benefits of the new computers around the clock at the university's lab.

Eren Bilgi Islem provides ongoing support and promises to immediately replace any faulty Workstation but, as Öztoprak points out, in four months of operation, they are yet to experience any issues.

Benefits

Speed and flexibility

The new Workstations boast much faster performance, which makes working with processor-hungry applications a joy rather than a source of frustration. In addition, the high definition 27 inch IPS display brings artwork, images and design plans to vivid life.

"The monitor is very crisp with beautiful colours which makes it ideal for true colour advertising, building design and DTP, for example," continues Öztoprak. "And the performance is astonishing – we can design products with complex elements without the system lagging or freezing. One student created HD video commercials that he could edit in real time using After Effects®. That wouldn't have been possible before."

The HP Z1 Workstations are also more environmentally friendly and use electricity more efficiently. By immediately going into power save mode when not in use, it saves the university money on its utilities bill and reduces its carbon footprint. And, because of the modular design, they can be customised according to budget and requirements. This flexibility makes them ideal for the academic environment where different subjects require different levels of performance.

The working environment has also benefitted from the quieter operation of the new Workstations: "The lab is much quieter than it was before which makes it more comfortable to conduct classes. Students need to be able to hear the professors and the HP Workstations make that possible," says Öztoprak.

The success of the HP Z1 Workstations has had a knock-on effect across the campus. Other faculty members undertaking complex research projects have taken an interest in this powerful platform while students have been asking how best to purchase HP solutions for their own homes.

"The students love the new Workstations and this really helps them engage more effectively with their chosen subject," concludes Öztoprak. "We're delighted with their performance and hope to continue to partner with HP in other areas."

Learn more at
hp.com/go/workstations

Customer solution at a glance

Application

3D Max, AutoCAD, V-Ray, Sketchbook, Revit, Rhinoceros, Adobe Creative Suite, Siemens NX, Solidworks

Hardware

- 25 x HP Z1 Workstation with NVIDIA Quadro graphics

Software

- HP Performance Advisor
- HP Remote Graphics Software (RGS) 6.0
- PDF Complete - Corporate Edition

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