New HP Workstations - Performance Pays for Itself

HP is leading the new revolution in high performance workstations, emphasizing performance, innovation and reliability. Find out how HP is turning the workstation world upside down.

High performance workstations power some of the most intense professions on the planet, from stock trading to oil and gas exploration to graphic and interactive design. When you turn on your workstation, you need to be ready to innovate immediately, and you never need to be held back by the limitations of your technology.

The new HP Z family of personal workstations is the epitome of innovation—taking performance and reliability to the next level in nearly every aspect of workstation design. From new processors by Intel® to a sleek industrial design in collaboration with BMW Group Designworks, the new Z workstations has what it takes to deliver serious ROI (Return on Innovation).

Faster, more efficient processors
The new Z workstations will introduce the latest-generation processor technology from Intel, the Intel® Xeon™ processor, built on the same micro-architecture as the Intel® Core™ i7 processor. Featuring dynamic scalability coupled with unprecedented processor performance [1], the Xeon eliminates bottlenecks previously encountered in multiprocessor systems - the front side bus. With this new architecture and its chipset, each processor has its own memory controller. This results in huge improvements to workstation memory bandwidth, which is performance staple of high-demand applications.

Larger and faster memory
More memory equates to faster problem-solving and more applications able to run simultaneously. The new memory technology in the HP Z Workstations is called DDR3 (double data rate, generation 3), and it delivers higher bandwidth, reduced latency and reduced power consumption.

Fast, flexible I/O
The HP Z Workstations employs an extensive change to the I/O subsystem. The chipset now consists of an I/O hub (IOH) and an I/O controller hub (ICH). The I/O hub provides support for one or two PCI Express 2.0 (sometimes called “PCI Express Gen 2”) graphics cards and connects directly to the I/O controller hub, which provides additional I/O connectivity. PCI Express 2.0 doubles the peak data rate from the previous generation. The new workstations leverage the connectivity in the new hub to directly support dual PCI Express x16 (“by 16”) graphics cards and even SLI, native for the first time in the Intel architecture.

Powerful graphics
The Z workstations incorporate the latest 2D and 3D graphics technology and the PCI Express 2.0 slots to provide a wide range of cost-effective graphics solutions. Several 2D graphics cards are available for users that want good 2D performance at competitive price points. For instance, video editing and financial services applications generally support multiple 2D monitors, but don't require 3D functionality. 3D graphics is required for animation in digital content creation (DCC) and MCAD users. The new workstations provide a wide range of 3D cards to meet every need.

Workplace-friendly industrial design
Thanks to a collaboration with BMW Group Designworks, the HP Z Workstations boasts a new industrial design. Designed from the ground-up to be more energy efficient, quiet, serviceable, and expandable, several of the new systems have completely redesigned electromechanical enclosures. What's more, all of the Z series workstations have 80 PLUS efficient, ENERGY STAR® 5.0 qualified configurations. An EPEAT Gold certification also demonstrates environmental sensitivity from beginning to end.

New design elements include:

- Brushed aluminum enclosures
- Integrated handles
- Visually cable-less design
- Intelligent airflow/cooling

HP productivity tools
The HP Personal Productivity Suite of solutions includes several helpful aids to help you modify and improve your workflow:

- Remote Graphics Software (RGS): HP RGS efficiently transmits complex 2D and 3D images from a sender system across standard computer networks to remote users. The remote users interact with a host sender system and its applications as if they were using a local workstation.
- Performance Tuning Framework (PTF): HP PTF provides monitoring tools for feedback on workstation performance, helpful suggestions on how to maximize that performance, and simpler discovery and communication processes for hardware or technical application problem reporting.

Learn more about HP Workstations
Visit www.hp.com/go/workstations