Workstations

HP Z Workstations for Medical Imaging and PACS

Third party FDA registered monitors and viewing software are required and sold separately.

Stay ahead of your PACS environment with HP Workstations.

Advances in clinical applications and workflow management tools have transformed the picture archiving and communication system (PACS) into a crucial decision-support system that requires robust performance from integrated workstations. HP helps you meet the challenge with a portfolio of workstations built with PACS in mind*. Widely used in healthcare environments around the world, select HP Workstations* are FDA registered 892.2010 Class I devices and deliver proven performance, reliability, and expandability for your PACS. Moreover, HP Workstations are designed to provide extremely efficient heat removal from processors, reduce overall acoustic output levels, and support graphics cards that drive multiple high-end monitors. In short, the HP Workstations are a natural fit for your PACS environment.

Why HP Workstations

HP Workstations offer the power, performance, and efficiency you need to yield faster results, greater precision, and increased savings while laying the groundwork for a stable infrastructure that will take you into the future.

HP Workstation family

HP Z Workstations combine bold design, best-in-class engineering, energy efficiency, and robust tools to help you get the greatest return on your investment with innovation, performance, and reliability that goes beyond a typical PC.

HP recommends Windows.

"We needed workstations that were designed with performance as a driving goal. And I believe that HP Workstations deliver great performance for the money."

—Andrew Willy, Information Systems Manager, Scottsdale Medical Imaging

Digitalize, virtualize, maximize

Your digital workflow
HP Workstations can revolutionize your workflow, help you migrate your 2D and analog records to 3D and digital, and prepare you for future technology developments. HP Z Workstations are engineered to optimize the way the processor, memory, graphics, operating system and software components work together to deliver massive, whole-system computational power that helps you maximize your IT investment and accomplish more with every minute of your time.

HP Z220 CMT and HP Z220 SFF Workstation

Our most affordable workstations. >>
The HP Z220 CMT Workstation delivers excellent performance, providing the workstation power needed for 2D and 3D applications. It provides ECC memory for users with larger files and is expandable up to midrange graphics for even more 3D performance capability. The HP Z220 Small Form Factor (SFF) Workstation is surprisingly nimble, dynamic and affordable. It is well-suited to compact work environments such as doctor review stations. The HP Z220 Workstations offer 20 to 67 percent performance improvement[1] over the predecessor series products. Aggressively-priced, the HP Z220 Workstations provide a workstation class experience with cost savings.

HP Z420 Workstation

Performance you want. Value you need. >>
With its revolutionary architecture and bold industrial design, the HP Z420 Workstation helps you accomplish more with every dollar of your investment. The HP Z420 offers Windows 7 and your choice of the latest quad-, six-, and eight-core Intel® Xeon® processors[2] and increased capacity for bigger challenges, with up to 64 GB[3] of faster DDR3[4] memory.

HP Z620 Workstation

Our most versatile workstation ever. >>
The HP Z620 packs sixteen-core compute and visualization power into a small, quiet package— for the ideal workstation when every inch, watt, and decibel make a difference. HP's quietest workstation, the HP Z620 is designed to fit in compact work spaces where real estate is at a premium and minimizing system noise is paramount. This workstation offers Windows 7 and your choice of the latest eight-core[2] Intel® Xeon® processors and capacity for increasingly bigger applications and data sets, with up to 96 GB[3] of high-speed DDR3[4] memory.

HP Z820 Workstation

Our ultimate workstation. >>
The HP Z820 Workstation delivers ultimate performance with the extreme speed and massive expandability that you demand to handle your biggest challenges and transmit the highest-resolution 3D images. Offering your choice of the latest six-core[4] Intel® Xeon® processors, the HP Z820 can parse the largest applications and data sets with up to 192 GB[7] of high-speed DDR3[6] memory.

HP Performance Advisor

The built-in workstation guru. >>

HP Performance Advisor delivers a simple, effective way to keep your HP Workstation operating at its peak potential. Like having an IT pro always on hand, this helpful software wizard can take you from initial configuration and customization through the optimization of your system for each new application and driver you install.

Remote Graphics Software

Remote access with a "just like local" feel. >>

HP Remote Graphics Software gives you high-performance remote desktop access to your 2D, 3D, video, and media-rich applications—when and where you need them, on-site or from a remote location through a standard Internet connection. This HP innovation allows you to collaborate with colleagues across geographies, in real-time, using content-rich interactive applications.

Innovation, performance, and reliability to help you create a stable, future-ready infrastructure and increase your productivity.

Why HP Workstations

Feature	Description	Benefit
FDA Registered Devices requirements	• Select HP Z Workstations are FDA Class I Registered Medical Devices*	• Fast, reliable graphic data process for accurate visualization
High-quality graphics	• Dual graphics support that drives up to eight displays • Updated line of professional 2D and 3D graphics from NVIDIA and AMD	• Visual accuracy and image clarity you require for accurate and speedy diagnoses
High performance	• Wide selection of dual-, and quad-, and six-core Intel® Xeon® processors[2] • ECC and non-ECC memory options	• Power through increasingly bigger applications and datasets • Faster time to results • Improved patient quality of care • Help ensure accuracy and reliability of results to mitigate risk
Healthcare ISV certifications	• HP Workstations are developed hand-in-hand with application software companies	• Get right to work without spending valuable time testing your software to see "if" it works
Quiet, energy-efficient operation	• ENERGY STAR® qualified configurations • 90% efficient power supplies • Quiet acoustic design	• Minimize power and cooling costs • Create a quieter work environment so you can focus on your work
HP stable and consistent offerings	• Lifecycles are measured in years • Maintain software image stability • Hardware and software components (such as processors, hard drives, graphics cards, and peripherals) designed to last for the lifecycle of select HP Workstations	• Optimize your testing and certification processes • Transition smoothly as new technologies and architectures are introduced • Buy exactly what you need • Maximize your technology investment • Customize a platform that's future-ready
Extraordinary ease of service	• Tool-free chassis • Uncluttered and highly streamlined internal design • Modular direct connect drives and power supplies	• Add or change components, from hard drives to power supplies, in seconds • Reduced downtime = lower TCO
Certified medical diagnostic monitors from industry leaders	• Tested with HP Workstations • DICOM compliant • FDA approved diagnostic monitors are available from Barco, Eizo, NDSi/Dome	• Exceptional detail accuracy

HP recommends Windows.

HP Workstations for medical imaging

Model*	HP Z220 CMT & HP Z220 SFF for affordable high performance	HP Z420 for mainstream users needing memory expansion	HP Z620 for affordable multi-core machines	HP Z820 for the best performance and expandability
AV number*	D4H10AV	D4H11AV	D4H12AV	D4H13AV
User	Ideal for entry level users where workstation performance is needed	Ideal for those who want to maximize performance with single-threaded applications	Ideal for those who need multi-core performance	Ideal for those who have the largest files and store large data sets
Operating System	Windows 7 Professional 32-Bit† Windows 7 Professional 64-bit† Windows 7 Ultimate 64-bit† Windows 7 Home Premium 32-bit† Windows 7 Home Premium 64-bit† Range of Linux choices	Windows 7 Professional 32-bit† Windows 7 Professional 64-bit† Windows 7 Ultimate 64-bit† Range of Linux choices	Windows 7 Professional 32-bit† Windows 7 Professional 64-bit† Windows 7 Ultimate 64-bit† Range of Linux choices	Windows 7 Professional 32-bit† Windows 7 Professional 64-bit† Windows 7 Ultimate 64-bit† Range of Linux choices
Application	Review/Referral station	Standard PACS applications	Pro users 3D visualization and analysis	3D, 4D and rendering
Processors	Intel® Pentium Processor G640 3rd Generation Intel® Core™ i3, i5, i7 Processors[2] Intel® Xeon® Processor E3-1200v2 Series[2] Intel® C216 chipset	Intel® Xeon® Processor E5-1600 Series[2] Intel® Xeon® Processor E5-2600 Series[2] Intel® C602 Chipset	Intel® Xeon® Processor E5-1600 Series[2] Intel® Xeon® Processor E5-2600 Series[2] Intel® C602 Chipset	Intel® Xeon® Processor E5-2600 Series[2] Intel® QuickPath Technology Intel® C602 Chipset
Graphic Cards	NVIDIA NVS 300 NVIDIA NVS 310 NVIDIA NVS 510 AMD FirePro™ V3900 AMD FirePro™ V4900** NVIDIA Quadro 410 NVIDIA Quadro 600 AMD FirePro™ V5900** NVIDIA Quadro 2000** AMD FirePro™ V7900 (AMO only)**,*** NVIDIA Quadro 4000 (AMO only)**, ***	NVIDIA NVS 300 NVIDIA NVS 310 NVIDIA Quadro NVS 450 NVIDIA Quadro 410 AMD FirePro™ V3900 NVIDIA Quadro 600 AMD FirePro™ V4900 NVIDIA Quadro 2000 AMD FirePro™ V5900 NVIDIA Quadro 4000 AMD FirePro™ V7900 NVIDIA Quadro 5000 NVIDIA Quadro K5000 NVIDIA Quadro 6000 NVIDIA Tesla C2075	NVIDIA NVS 300 NVIDIA NVS 310 NVIDIA Quadro NVS 450 NVIDIA NVS 510 NVIDIA Quadro 410 AMD FirePro™ V3900 NVIDIA Quadro 600 AMD FirePro™ V4900 NVIDIA Quadro 2000 AMD FirePro™ V5900 NVIDIA Quadro 4000 AMD FirePro™ V7900 NVIDIA Quadro 5000 NVIDIA Quadro K5000 NVIDIA Quadro 6000 NVIDIA Tesla C2075	NVIDIA NVS 300 NVIDIA NVS 310 NVIDIA Quadro NVS 450 NVIDIA Quadro 410 AMD FirePro™ V3900 NVIDIA Quadro 600 AMD FirePro™ V4900 NVIDIA Quadro 2000 AMD FirePro™ V5900 NVIDIA Quadro 4000 AMD FirePro™ V7900 NVIDIA Quadro 5000 NVIDIA Quadro K5000 NVIDIA Quadro 6000 NVIDIA Tesla C20757

Learn more

hp.com/go/wshealthcare and hp.com/zworkstations

* HP offers select workstations that are registered FDA Class I Medical Devices for your PACS system. When ordering your workstation, please choose from these workstation part numbers: Z1 (D4H09AV); Z220 (D4H10AV); Z420 (D4H11AV); Z620 (D4H12AV); Z820 (D4H13AV).

** Not available on HP Z220 SFF

***After-Market Option

† Systems may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality. See **microsoft.com/windows/windows-7** for details.

[1] Based on benchmark testing done at HP's Workstation Technical Consulting Labs, with workstation market applications including the SPECapc benchmarks for Pro/ENGINEER Wildfire 2.0, SolidWorks 2007, 3ds Max V9, Maya 2009 and LightWave as well as the Cadalyst C2010 v5.3 Benchmark Test and SunGard 4, comparing an HP Z200 Workstation with an Intel® Core™ i5-680/Intel® Xeon® X3480 processor to an HP Z210 Workstation with an Intel Core i7-2600/Intel Xeon E3-1280 processor. All other system configurations were selected to be as equal as possible. Not all applications may experience similar performance improvements.

[2] Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel's numbering is not a measurement of higher performance.

[3] For hard drives, 1 GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 8 GB of hard drive (or system disk) is reserved for the system recovery software for Windows. Up to 20 GB of system disk (for Windows 7) is reserved for system recovery software.

[4] Each processor supports up to 2 (HP Z220 CMT/HP Z220 SFF) or 3 (HP Z420/HP Z620/HP Z820) channels of DDR3 memory. To realize full performance at least 1 DIMM must be inserted into each channel. To get full 6 channel support, 2 processors MUST be installed.

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