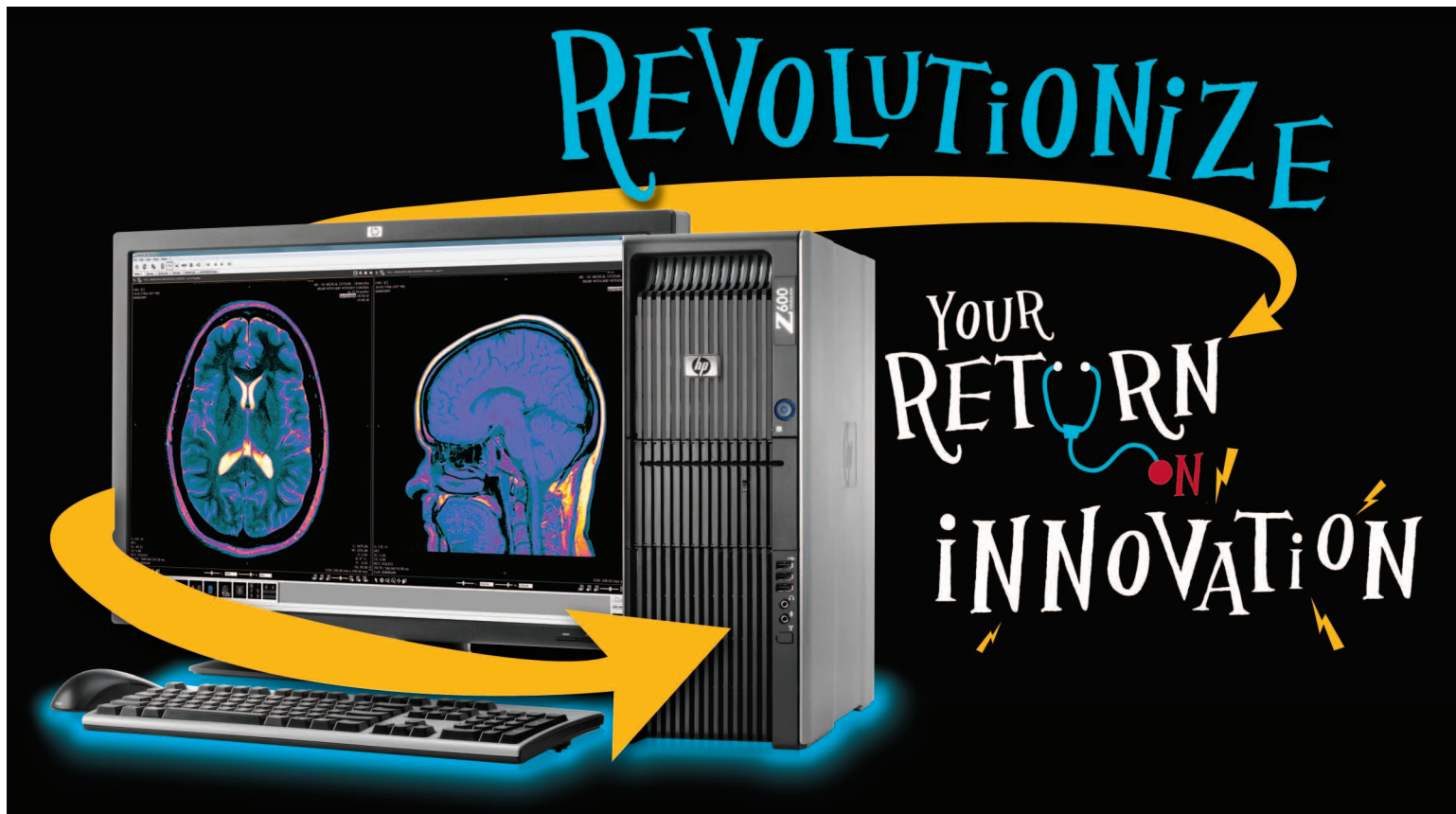


## HP Z Workstations for Medical Imaging and PACS



The healthcare industry is pushing for digitized standards for medical records, and since Picture Archiving and Communication Systems (PACS) forms the basic level of the healthcare IT infrastructure, now is a great time to invest in an IT infrastructure that will take you forward. HP Workstations are already the leading medical imaging hardware platform for clinicians, diagnosticians, and OEM solutions around the world, used every day for:

- Rapid, accurate, and timely acquisition and analysis of CT, MRI, and PET Imaging results
- Importing and exporting of radiology data to and from external archival or image archive systems
- Collaboration and review of medical imaging data
- Reliability that's second to none

Those same 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.

### 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, world-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 Z210 CMT Workstation

The HP Z210 CMT offers advanced workstation power and productivity at starting prices that rival traditional desktop computing systems. The HP Z210 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 Z210 Workstations offer over 20 to 67% performance improvements\* over the predecessor series products. Aggressively-priced, the HP Z210 Workstations provide a workstation class experience with cost savings.

\*on select applications



“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

#### **HP Z400 Workstation**

With its revolutionary architecture and bold industrial design, the HP Z400 Workstation helps you accomplish more with every dollar of your investment. The HP Z400 offers your choice of the latest dual, quad and six core Intel® Xeon® processors<sup>2</sup> and increased capacity for bigger challenges, with up to 24 GB of faster DDR3<sup>4</sup> 1333 MHz memory.

#### **HP Z600 Workstation**

The HP Z600 packs up to 12 cores of 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 Z600 is designed to fit in compact work spaces where real estate is at a premium and minimizing system noise is paramount. This workstation offers your choice of the latest six-core<sup>1</sup> Intel® Xeon® processors<sup>2</sup> and capacity for increasingly bigger applications and data sets, with up to 48 GB of high-speed DDR3<sup>4</sup> 1333 MHz memory.

#### **HP Z800 Workstation**

The HP Z800 Workstation delivers superb 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<sup>1</sup> Intel® Xeon® processors<sup>2</sup>, the HP Z800 can parse the largest applications and data sets with up to 192 GB of high-speed DDR3<sup>4</sup> 1333 MHz memory.

#### **HP EliteBook Mobile Workstations**

The HP EliteBook 8460w\*, 8560w and 8760w Mobile Workstations redefine high-performance mobile computing by combining a 14-, 15.6- or 17.3-inch diagonal workstation-class display with maximum computational power for reviewing and evaluating data on the fly.

#### **HP Remote Graphics Software**

HP Remote Graphics Software (RGS) is an advanced utility that allows you to remotely access and share your workstation, its 3D graphics power, and all of its applications with other parties, anywhere you have an internet connection. Using HP compression technology, HP RGS minimizes network usage and enables remote access without compromising performance or image quality. Use HP RGS for real-time sharing of high-resolution 3D imagery to speed test result evaluations and diagnoses by medical personnel in different offices, on different floors, or even in different cities. For more information see [www.hp.com/go/rgs](http://www.hp.com/go/rgs).

#### **HP Performance Advisor**

HP Performance Advisor helps you maximize the performance and reliability of your workstation environment by giving you the ability to discover, optimize and manage your unique combination of hardware, graphics drivers, applications, operating system and other system resources—an exclusive HP software innovation that’s included free with every HP workstation. For more information see [www.hp.com/go/hpperformanceadvisor](http://www.hp.com/go/hpperformanceadvisor).

\* Not available in all regions

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

## Why HP Workstations

Feature	Description	Benefit
<b>High-quality graphics</b>	<ul style="list-style-type: none"> <li>Dual graphics support that drives up to eight displays</li> <li>Updated line of professional 2D and 3D graphics from NVIDIA and AMD</li> </ul>	<ul style="list-style-type: none"> <li>Visual accuracy and image clarity you require for accurate and speedy diagnoses</li> </ul>
<b>High performance</b>	<ul style="list-style-type: none"> <li>Revolutionary Intel® QuickPath Architecture</li> <li>Wide selection of dual-, and quad-, and six-core<sup>1</sup> Intel® Xeon® processors<sup>2</sup></li> <li>ECC and non-ECC memory options</li> </ul>	<ul style="list-style-type: none"> <li>Power through increasingly bigger applications and datasets</li> <li>Faster time to results</li> <li>Improved patient quality of care</li> <li>Help ensure accuracy and reliability of results to mitigate risk</li> </ul>
<b>Healthcare ISV certifications</b>	<ul style="list-style-type: none"> <li>HP Workstations are developed hand-in-hand with application software companies</li> </ul>	<ul style="list-style-type: none"> <li>Get right to work without spending valuable time testing your software to see “if” it works</li> </ul>
<b>Quiet, energy-efficient operation</b>	<ul style="list-style-type: none"> <li>ENERGY STAR® qualified configurations</li> <li>85%, 89% or 90% efficient power supplies (varies by model)</li> <li>Quiet acoustic design</li> </ul>	<ul style="list-style-type: none"> <li>Minimize power and cooling costs</li> <li>Create a quieter work environment so you can focus on your work</li> </ul>
<b>HP stable and consistent offerings</b>	<ul style="list-style-type: none"> <li>Lifecycles are measured in years</li> <li>Maintain software image stability</li> <li>Hardware and software components (such as processors, hard drives, graphics cards, and peripherals) designed to last for the lifecycle of select HP Workstations</li> </ul>	<ul style="list-style-type: none"> <li>Optimize your testing and certification processes</li> <li>Transition smoothly as new technologies and architectures are introduced</li> <li>Buy exactly what you need</li> <li>Maximize your technology investment</li> <li>Customize a platform that’s future-ready</li> </ul>
<b>Extraordinary ease of service</b>	<ul style="list-style-type: none"> <li>Tool-free chassis</li> <li>Uncluttered and highly streamlined internal design</li> <li>Modular direct connect drives and power supplies</li> </ul>	<ul style="list-style-type: none"> <li>Add or change components, from hard drives to power supplies, in seconds</li> <li>Reduced downtime = lower TCO</li> </ul>
<b>HP Performance Monitors</b>	<ul style="list-style-type: none"> <li>High-resolution 2D/3D imaging</li> <li>Traditional and wide-aspect screens range from 20 to 30 inches (diagonal)</li> <li>Wide viewing angles, adjustable user comfort, and landscape or portrait orientation</li> <li>Ultra-thin bezels</li> <li>DVI, HDMI, and DisplayPort, and USB connectivity (varies by monitor)</li> </ul>	<ul style="list-style-type: none"> <li>Select the screen size, position, and orientation best suited to your available work space</li> <li>Experience minimal visual obstruction when tiling multiple monitors</li> <li>Enjoy easy connectivity to a variety of inputs and peripheral devices</li> <li>Be assured that the monitors can work with current or future imaging modalities and peripherals</li> </ul>
<b>Certified medical diagnostic monitors</b>	<ul style="list-style-type: none"> <li>Tested with HP Workstations</li> <li>DICOM compliant</li> </ul>	<ul style="list-style-type: none"> <li>Exceptional detail accuracy</li> </ul>

# HP recommends Windows® 7.

## HP Advantage

The HP commitment doesn't stop with the hardware. When you buy an HP Workstation, you also get:

- In-depth testing and quality assurance to keep you productively up-and-running
- HP Stable & Consistent Offerings that allow you to choose from a range of options that will be available through the end of life of select HP Z Workstation platforms.

- Comprehensive, lifetime HP Total Care options, easy HP financing solutions, and an array of monitors and other accessories that make HP Workstations easy to own and use

For more information about how HP Workstations can help you yield the biggest return on innovation and begin future-proofing your IT environment, please visit [www.hp.com/go/wshealthcare](http://www.hp.com/go/wshealthcare).

Model	HP Z210 CMT/HP Z210 SFF Workstation	HP Z400 Workstation	HP Z600 Workstation	HP Z800 Workstation	HP EliteBook 8560w Mobile Workstation
<b>User</b>	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	Ideal for those who need powerful processing performance and workstation graphics that won't weigh them down
<b>Operating system</b>	<ul style="list-style-type: none"> <li>• Genuine Windows® 7 Ultimate or other editions available*</li> <li>• Range of Linux choices</li> </ul>	<ul style="list-style-type: none"> <li>• Genuine Windows® 7 Ultimate 64-bit†</li> <li>• Genuine Windows® 7 Professional 32-bit†</li> <li>• Range of Linux choices</li> </ul>	<ul style="list-style-type: none"> <li>• Genuine Windows® 7 Ultimate 64-bit†</li> <li>• Genuine Windows® 7 Professional 32-bit†</li> <li>• Range of Linux choices</li> </ul>	<ul style="list-style-type: none"> <li>• Genuine Windows® 7 Ultimate 64-bit†</li> <li>• Genuine Windows® 7 Professional 32-bit†</li> <li>• Range of Linux choices</li> </ul>	<ul style="list-style-type: none"> <li>• Genuine Windows® 7 Professional†</li> <li>• Genuine Windows 7 Home Premium†</li> <li>• Genuine Windows Vista® Business†</li> <li>• FreeDOS</li> </ul>
<b>PACS solution</b>	Review/Referral station	Standard PACS applications	Pro users 3D visualization and analysis	3D, 4D and rendering	On-call remote portability
<b>Processors<sup>1,2,3</sup></b>	<ul style="list-style-type: none"> <li>• 2nd Generation Intel® Core™ i3, i5, i7 Processors and Intel® Xeon® Processor E3 Series</li> <li>** Featuring Intel® vPro Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Dual-, quad- and six-core Intel® Xeon® processor 3500 and 3600 series</li> <li>• Intel® QuickPath Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Quad- and six-core Intel® Xeon® processor 5500 and 5600 series</li> <li>• Intel® QuickPath Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Quad- and six-core Intel® Xeon® processor 5500 and 5600 series</li> <li>• Intel® QuickPath Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Intel® Core™ i5 and i7 mobile processor family with Intel® Turbo Boost Technology</li> <li>• Mobile Intel QM67 Express Chipset</li> <li>• Intel® vPro Technology (optional)</li> </ul>
<b>Graphics cards</b>	<ul style="list-style-type: none"> <li>• Intel® HD Graphics 2000 (Intel® Core™ processors)</li> <li>• Intel® HD Graphics P3000 (Intel® Xeon® E3-1xx5 processors)</li> <li>• AMD FirePro 2270</li> <li>• NVIDIA Quadro NVS 295</li> <li>• NVIDIA NVS 300</li> <li>• NVIDIA Quadro 400</li> <li>• NVIDIA Quadro 600</li> <li>• ATI FirePro V3800</li> <li>• ATI FirePro V4800*</li> <li>• NVIDIA Quadro 2000*</li> <li>• AMD FirePro V5900*</li> <li>• NVIDIA Quadro 4000 (AMO only)*</li> </ul> <p>* Not available on HP Z210 SFF</p>	<ul style="list-style-type: none"> <li>• NVIDIA Quadro NVS 295</li> <li>• NVIDIA NVS 300</li> <li>• AMD FirePro 2270</li> <li>• NVIDIA Quadro NVS 450</li> <li>• NVIDIA Quadro FX 380</li> <li>• NVIDIA Quadro 400</li> <li>• NVIDIA Quadro 600</li> <li>• ATI FirePro V3800</li> <li>• ATI FirePro V4800</li> <li>• NVIDIA Quadro 2000</li> <li>• AMD FirePro V5900</li> <li>• NVIDIA Quadro 4000</li> <li>• AMD FirePro V7900</li> <li>• NVIDIA Quadro 5000</li> <li>• NVIDIA Tesla C2050</li> <li>• NVIDIA Tesla C2075</li> </ul>	<ul style="list-style-type: none"> <li>• NVIDIA Quadro NVS 295</li> <li>• NVIDIA NVS 300</li> <li>• AMD FirePro 2270</li> <li>• NVIDIA Quadro NVS 450</li> <li>• NVIDIA Quadro FX 380</li> <li>• NVIDIA Quadro 400</li> <li>• NVIDIA Quadro 600</li> <li>• ATI FirePro V3800</li> <li>• ATI FirePro V4800</li> <li>• NVIDIA Quadro 2000</li> <li>• AMD FirePro V5900</li> <li>• NVIDIA Quadro 4000</li> <li>• AMD FirePro V7900</li> <li>• AMD FirePro V7900</li> <li>• NVIDIA Quadro 5000</li> </ul>	<ul style="list-style-type: none"> <li>• NVIDIA Quadro NVS 295</li> <li>• NVIDIA NVS 300</li> <li>• AMD FirePro 2270</li> <li>• NVIDIA Quadro FX 380</li> <li>• NVIDIA Quadro 400</li> <li>• NVIDIA Quadro 600</li> <li>• ATI FirePro V3800</li> <li>• ATI FirePro V4800</li> <li>• NVIDIA Quadro 2000</li> <li>• AMD FirePro V5900</li> <li>• NVIDIA Quadro 4000</li> <li>• AMD FirePro V7900</li> <li>• ATI FirePro V8800</li> <li>• NVIDIA Quadro 5000</li> <li>• NVIDIA Quadro 6000</li> <li>• NVIDIA Tesla C2050</li> <li>• NVIDIA Tesla C2075</li> </ul>	<ul style="list-style-type: none"> <li>• AMD FirePro M5950 graphics with 1 GB dedicated GDDR5 video memory</li> <li>• NVIDIA Quadro 1000M graphics with 2 GB dedicated DDR3 video memory</li> <li>• NVIDIA Quadro 2000M graphics with 2 GB dedicated DDR3 video memory</li> </ul>

† Windows 7 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 [www.microsoft.com/windows/windows-7](http://www.microsoft.com/windows/windows-7) for details. Certain Windows Vista product features require advanced or additional hardware. See [www.microsoft.com/windowsvista/getready/hardwarereqs.aspx](http://www.microsoft.com/windowsvista/getready/hardwarereqs.aspx) and [www.microsoft.com/windowsvista/getready/capable.aspx](http://www.microsoft.com/windowsvista/getready/capable.aspx) 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).

<sup>1</sup> Dual-, quad- and six-core technologies are designed to improve performance of multithreaded software products and hardware-aware multitasking operating systems and may require appropriate operating system software for full benefits. Not all customers or software applications will necessarily benefit from use of these technologies.

<sup>2</sup> 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. See [www.intel.com/info/em64t](http://www.intel.com/info/em64t) for more information.

<sup>3</sup> Intel's numbering is not a measurement of higher performance.

<sup>4</sup> Each processor supports up to 2 (HP Z210 CMT/HP Z210 SFF) or 3 (HP Z400/HP Z600/HP Z800) 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.

<sup>5</sup> 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 XP and XP Pro, up to 12 GB for Windows Vista, and up to 20 GB for Windows 7.

Intel, Xeon, Core, and vPro are trademarks of Intel Corporation in the U.S. and other countries. Windows is a U.S. registered trademark of Microsoft Corporation. ATI is a trademark of Advanced Micro Devices, Inc. ENERGY STAR is a registered mark owned by the U.S. government.

© 2009-2011 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

