

HP recommends Windows® 7.

HP AND EIZO IMAGING SOLUTIONS

For faster results, greater precision and increased savings



Radiologists and radiology departments gain a significant edge in performance and productivity, thanks to the combination of HP Workstations and diagnostic displays from Eizo. You benefit from the HP commitment to performance, innovation, and reliability excellence combined with the strength of the HP and Eizo relationship.

HP innovation, performance and productivity, reliability and relationships

HP Z Workstations are engineered to optimize the way hardware and software components work together, delivering massive, whole-system computational power that helps maximize your productivity and make 2D and 3D acquisition and diagnosis faster and more efficient than ever before. This gives you an edge in five key areas:

- **Innovation:** Cutting-edge technology, including a whole new range of professional 2D and 3D graphics to help create and visualize even the most complex images.
- **Performance and productivity:** Advanced compute and visualization allow you to yield faster results, great precision and ultimately provide better patient care. At the heart of HP Z Workstations are the latest Intel® Xeon® processors¹—including Intel® QuickPath technology, advanced Intel® Turbo Boost technology², and Intel® Hyper-Threading³—to give you maximum performance and speed even when

performing multiple tasks at once. You will also benefit from HP Liquid Cooling. HP is reengineering the sound of high performance, leading the workstation industry with acoustical innovations and thermal efficiencies that are designed to deliver advanced performance with a whisper-quiet and more productive workplace experience.

- **Reliability:** HP product testing includes application performance, graphics and comprehensive ISV certification for maximum productivity. You can be confident in your HP and Eizo solution.
- **Relationships:** HP resources and our relationship with Eizo, graphics vendors, chip suppliers and Microsoft provide a consistent application, operating system, hardware and graphics technical direction. This results in broader, more dependable medical imaging technology choices.

The HP and Eizo advantage

HP has a unique relationship with Eizo, working as one of its top hardware partners. This allows HP and Eizo to offer a comprehensive portfolio of solutions that address the needs of our customers with innovative hardware and software that is tuned and integrated. Our close relationship and healthcare expertise help ensure solutions that perform not only today, but for the long run.



EIZO's future focused diagnostic monitors:

- EIZO and HP's commitment to technological innovation includes making products that are as ergonomically, environmentally, and economically-friendly as possible.
- Together, we offer solutions for every diagnostic and clinical review application.
- EIZO's patented backlight stabilization maintains highest level of calibrated accuracy over time.
- The bundled RadiCS LE proves the monitor is consistently functioning at peak image quality performance.
- Configurations are validated, tested to ensure not only the highest level of image quality and operational uptime, but also provide the highest standard for life critical images to physicians.
- EIZO strictly adheres to ACR, AAPM, DIN, JESRA, IEC and other scientific guidelines.

RadiForce G&R-series

Physician demands for monitor performance vary according to where the monitor is used and what it is used for. EIZO's complete spectrum of RadiForce medical monitor solutions delivers exceptionally accurate and stable image display at leading hospitals and imaging centers around the world. With the shift to completely filmless systems for improved efficiencies in patient care, EIZO exceeds expectations by providing products of unsurpassed quality, consistency, and value that are truly Future Focused.

Versatility to meet all your imaging needs

With highly controlled manufacturing facilities in both Japan and Germany dedicated to top quality products, EIZO provides the broadest and most versatile line-up of monitors for every medical imaging modality. RadiForce G&R-Series specially designed 1, 2, 3, 4, 5 and 10 megapixel monochrome and color monitors take into full account medical institutions' needs for monitors with medical certifications, calibration and high-performance capabilities required for a confident diagnosis.

EIZO innovations ensure quality and stability over time

Backed by decades of research, development and experience, EIZO keeps tight control on all of its components by developing and manufacturing them out of its own factories. Because of this control, Eizo offers monitors with refined rendering of subtle shadings, unified display between multiple monitors, and rendering consistency over time.

Suggested configurations

HP and EIZO Recommended configurations for

Standard PACS application



HP Z400 Workstation

Genuine Windows® 7 Professional 64-bit*
Six-core Intel® Xeon® W3680 processor
(3.33 GHz)^{1,4,5}
6 GB DDR3 ECC memory ^{6,7}

EIZO RadiForce® RX220

21.3-inch color IPS LCD monitor
2 megapixel (1200 x 1600 resolution)
Compliant with DICOM Part 14

Advanced PACS application



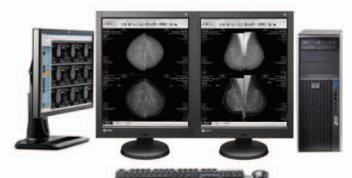
HP Z600 Workstation

Genuine Windows® 7 Professional 64-bit*
Two quad-core Intel® Xeon® X5640 processor
(3.06 GHz) ^{1,4,5}
8 GB DDR3 ECC memory ^{6,7}

EIZO RadiForce® RX320

21.2-inch color IPS LCD monitor
3 megapixel (1536 x 2048 resolution)
Compliant with DICOM Part 14

Digital mammography



HP Z400 Workstation

Genuine Windows® 7 Professional 64-bit*
Six-core Intel® Xeon® W3680 processor
(3.33 GHz) ^{1,4,5}
6 GB DDR3 ECC memory ^{6,7}

EIZO RadiForce® GX530

21.3-inch monochrome IPS LCD monitor
5 megapixel (2048 x 2560 resolution)
Compliant with DICOM Part 14

HP and Eizo—Working Better Together

- HP submits workstations and collaborates with EIZO to validate and test workstations and appropriate graphics cards. You can be confident in the quality of your HP Workstation and EIZO display solution.
- EIZO uses HP Workstations internally to develop and test its software.
- HP has experts who work with EIZO's technical resources and are available to support customers and recommend configurations.

Looking to the future

EIZO's commitment to technological innovation includes making products that are as ergonomically, environmentally, and economically-friendly as possible. Such leading innovations include high-quality monitors with a high contrast ratio and high brightness ideal for displaying 3D rendering and fusion color images as well as CT and MRI monochrome images compliant with the DICOM Part 14 standard. In addition, EIZO's unique Hybrid Gamma automatically distinguishes whether the displayed images are monochrome or color even within the same application. It displays the monochrome images in DICOM Part 14 adjusted mode and the color images in gamma 2.2 adjusted mode. This expands the usability of PACS applications by ensuring that color and monochrome medical images are optimally displayed.

Digitalize, virtualize, maximize

“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

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 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 AND Z210 SFF WORKSTATION

The HP Z210 CMT offers advanced workstation power and productivity at a price that allows you to offer a workstation instead of traditional desktop computing systems in administrative areas, labs, and classrooms. 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 20% to 67% performance improvement⁸ over the predecessor series products. Aggressively-priced, the HP Z210 Workstations provide a workstation class experience with cost savings.

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- and quad-core⁴ Intel® Xeon® processors and increased capacity for bigger challenges, with up to 24 GB⁷ of faster DDR3⁶ memory.

HP Z600 Workstation

The HP Z600 packs twelve-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 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-core⁴ Intel® Xeon® processors and capacity for increasingly bigger applications and data sets, with up to 48 GB⁷ of high-speed DDR3⁶ memory.



HP Z800 Workstation

The HP Z800 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-core⁴ Intel® Xeon® processors, the HP Z800 can parse the largest applications and data sets with up to 192 GB⁷ of high-speed DDR3⁶ memory.

HP Remote Graphics Software for virtual collaboration

HP Remote Graphics Software (RGS) allows remote access and workstation sharing of 3D models, HD video⁹, and media-rich applications through a standard Internet connection. For more information see 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.

HP SpacePilot

SpacePilot Intelligent Controller enables two-handed operation with one hand on the mouse and one on the HP SpacePilot. This device is well suited for 3D and volumetric image manipulation:

- Refined sensing technology that allows you to intuitively push, tilt, or twist the control cap for an immediate response.
 - Extendable function keys that can be programmed to simplify repeat operations; multi-layered menu pull downs enable increased efficiency.
 - Comfortable design that minimizes repetitive stress.
- See significant improvements in productivity with an HP SpacePilot.

HP recommends Windows® 7.

Model	HP Z210 CMT/HP Z210SFF Workstation	HP Z400 Workstation	HP Z600 Workstation	HP Z800 Workstation
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	<ul style="list-style-type: none"> Genuine Windows® 7 Ultimate 64-bit* Genuine Windows® 7 Professional 32-bit* Range of Linux choices 	<ul style="list-style-type: none"> Genuine Windows® 7 Ultimate 64-bit* Genuine Windows® 7 Professional 32-bit* Range of Linux choices 	<ul style="list-style-type: none"> Genuine Windows® 7 Ultimate 64-bit* Genuine Windows® 7 Professional 32-bit* Range of Linux choices 	<ul style="list-style-type: none"> Genuine Windows® 7 Ultimate 64-bit* Genuine Windows® 7 Professional 32-bit* Range of Linux choices
PACS solution	Review/Referral station	Standard PACS applications	Pro users 3D visualization and analysis	3D, 4D and rendering
Processors ^{1,4,5}	<ul style="list-style-type: none"> Intel Core™ i3 processor Quad-core Intel® Core™ i5 or i7** Quad-core Intel® Xeon® Processors** <p>** Featuring Intel® vPro Technology</p>	<ul style="list-style-type: none"> Dual-, quad-, and six-core Intel® Xeon® processor 3500 and 3600 series Intel® QuickPath Technology 	<ul style="list-style-type: none"> Quad- and six-core Intel® Xeon® processor 5500 and 5600 series Intel® QuickPath Technology 	<ul style="list-style-type: none"> Quad- and six-core Intel® Xeon® processor 5500 and 5600 series Intel® QuickPath Technology
Graphics cards	<ul style="list-style-type: none"> NVIDIA Quadro NVS 295 NVIDIA NVS 300 NVIDIA Quadro 400 NVIDIA Quadro 600 NVIDIA Quadro 2000† Intel® HD Graphics 2000/P3000†† (with selected processors only) AMD FirePro 2270 AMD FirePro V3800 AMD FirePro V4800† AMD FirePro V5800† <p>† Not available on HP Z210 SFF</p> <p>†† Tested with Eizo monitors</p>	<ul style="list-style-type: none"> NVIDIA Quadro NVS 295 NVIDIA NVS 300 NVIDIA Quadro NVS 450 NVIDIA Quadro FX 380†† NVIDIA Quadro 600 AMD FirePro 2270 AMD FirePro V3800 AMD FirePro V4800†† NVIDIA Quadro 2000 AMD FirePro V5800†† NVIDIA Quadro 4000 NVIDIA Quadro 5000 NVIDIA Tesla C2050 	<ul style="list-style-type: none"> NVIDIA Quadro NVS 295 NVIDIA NVS 300 NVIDIA Quadro NVS 450 NVIDIA Quadro FX 380†† NVIDIA Quadro 600 AMD FirePro 2270 AMD FirePro V3800 AMD FirePro V4800†† NVIDIA Quadro 2000 AMD FirePro V5800†† NVIDIA Quadro 4000 NVIDIA Quadro 5000 	<ul style="list-style-type: none"> NVIDIA Quadro NVS 295 NVIDIA NVS 300 NVIDIA Quadro FX 380†† NVIDIA Quadro 600 AMD FirePro 2270 AMD FirePro V3800 AMD FirePro V4800†† NVIDIA Quadro 2000 AMD FirePro V5800†† NVIDIA Quadro 4000 AMD FirePro V8800 NVIDIA Quadro FX 5800 NVIDIA Quadro 5000 NVIDIA Quadro 6000 NVIDIA Tesla C2050

For more information about HP Workstation solutions, please visit www.hp.com/go/wshealthcare

* 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 <http://www.microsoft.com/windows/windows-7/> for details.

- 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 for more information.
- Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost performance varies depending on hardware, software, and overall system configuration. See www.intel.com/technology/turboboost for more information.
- Intel HT Technology (HT) is designed to improve performance of multi-threaded software products and requires a computer system with a processor supporting HT and an HT-enabled chipset, BIOS, and operating system. Please contact your software provider to determine compatibility. Not all customers or software applications will benefit from the use of HT. See <http://www.intel.com/info/hyperthreading> for more information.
- Six-core, quad-core, and dual-core 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; check with software provider to determine suitability; Not all customers or software applications will necessarily benefit from use of these technologies.
- Intel's numbering is not a measurement of higher performance.
- Each processor supports up to 2 channels (HP Z210/HP Z210 SFF) or 3 channels (HP Z400/HP Z600/HP Z800) 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.
- For hard drives, 1 GB = 1 billion bytes. 1 TB = 1 trillion bytes. Actual formatted capacity is less. Up to 20 GB of hard drive (or system disk) is reserved for the system recovery software for Windows 7.
- Based on benchmark testing done at HP's Workstation Technical Consulting Labs, with workstation market applications including the SPECcapc benchmarks for Pro/ENGINEER Wildfire 2.0, SolidWorks 2007, 3ds Max V9, Maya 2009 and LightWave as well as the Catalyst 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.
- HD Content required to view HD images.

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