# **HP AND AUTODESK**





# Your built-in engineering edge

The HP commitment to innovation and solutions excellence, along with Autodesk® design software and the HP/Autodesk relationship, provides you with a significant engineering edge. It starts with the family of revolutionary, next-generation HP Z Workstations, designed to make complex design and rendering easier and faster than ever before.

#### The HP Difference

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 3D design and visualization faster and more efficient than ever before. This gives you an edge in five key areas:

- Innovation: Enjoy next-generation technology, including the award winning Z Workstation design, to help you create and visualize even the most complex designs. This revolutionary design brings a tool-less chassis, advanced cooling and choice of power with up to 90% efficient power supplies.
- Performance: Advanced compute and visualization power help speed your work, beat deadlines, and meet expectations. At the heart of HP Z Workstations are the new Intel® processors with advanced processor performance technologies, such as Intel® QuickPath, Intel® Hyper-Threading¹ and Intel® Turbo Boost². Intel® Turbo Boost is designed to enhance the base operating frequency of processor cores, providing more processing speed for single and multi-threaded applications. The HP Z Workstation cooling design enhances this performance.

- Reliability: HP product testing includes application performance, graphics and comprehensive ISV certification for maximum productivity. You can be confident in your HP and Autodesk solution.
- Relationships: HP resources and our relationships with Autodesk, graphics vendors, chip suppliers, and Microsoft provide a consistent application, operating system, hardware, and graphics technical direction. This results in broader, more dependable 3D application-oriented technology choices.
- Personal productivity: Only HP provides unique tools to improve workstation user productivity, including: HP Performance Advisor, a workstation software wizard with helpful advice on recommended settings and performance; and HP Remote Graphics Software, a high-performance real-time 3D screen sharing and remote access application.

### **HP and Autodesk**

HP has a unique relationship with Autodesk, Inc., a world leader in 2D and 3D design software for the manufacturing, building and construction, and media and entertainment industries. More than nine million users rely on Autodesk tools to help them design, visualize, and simulate real-world performance early in the design process, save time and money, enhance quality, and foster innovation.

"Autodesk and HP have partnered to provide unparalleled design solutions to our customers in the building, manufacturing, and media and entertainment industries. In the increasingly global economy, design innovation has become even more critical—and together we are uniquely positioned to give our customers the solutions they need to compete."

Chris Bradshaw, Chief Marketing Officer, Autodesk



"I love the HP EliteBook Mobile Workstation. It's so light and gives me all the performance I need for AutoCAD."

Lynn Allen, Autodesk Evangelist

Watch the video Lynn Allen on HP Z Workstations and AutoCAD



# Autodesk Architecture, Engineering, and Construction (AEC) Solutions

Autodesk helps AEC professionals deliver projects faster and more economically, while minimizing environmental impact. With powerful tools for design, simulation, visualization and documentation, Autodesk supports a building information modeling (BIM) process to explore a project's key physical and functional characteristics—before it's built. The rich, intelligent information from the model enables the integration of the real world and the digital world to help improve the way buildings, transportation projects, and utility networks are designed, built, and managed. The Autodesk BIM solution begins with the Autodesk® Revit® platform, and AutoCAD® Civil 3D® software, complemented by a broad portfolio of applications, including AutoCAD® and AutoCAD LT®, Autodesk® Navisworks®, AutoCAD® Map 3D, and Autodesk® Ecotect® Analysis software products.

# Watch the video Amy Fietkau on Building Information Modeling



### **Autodesk Manufacturing Solutions**

From conceptual design to visualization and simulation, the Autodesk solution for Digital Prototyping provides the interoperable tools that allow manufacturing companies to connect their entire product development process through a single digital model, reducing the reliance on costly physical prototypes. Manufacturers can experience a complete product before it is built. The Autodesk solution includes Autodesk® Inventor® software—the foundation of the Autodesk solution for Digital Prototyping, the Autodesk® Alias® family of products, Autodesk® Showcase®, AutoCAD, AutoCAD® Mechanical. AutoCAD® Electrical, the Autodesk® Vault family of products, Autodesk Streamline®, Autodesk® Design Review, Autodesk Navisworks products, Autodesk® Moldflow® products, Autodesk® 3ds Max® Design, and Autodesk® Maya® software.

# Watch the video Daryl Corelli on Digital Prototyping



## **HP provides more to Autodesk customers**

- HP thoroughly tests and certifies each HP Workstation model for Autodesk applications.
- HP submits workstations to Autodesk for complete testing.
- Autodesk has standardized on HP Workstations and Mobile Workstations to develop, test, and demonstrate their applications.
- HP Workstation graphics are thoroughly tested to support Autodesk products.
- HP Remote Graphics Software enables users to share 3D screen images with others, as well as remotely access their own workstation.
- HP Performance Advisor offers special features to optimize the performance of Autodesk applications.
- HP technical experts who work with Autodesk are available to support customers and provide recommended configurations for specific Autodesk applications, based upon HP application testing.

### **Autodesk Design Visualization Solutions**

Autodesk design visualization solutions provide advanced 3D modeling, lighting, rendering, and animation toolsets for the most challenging architectural, civil engineering, product and industrial design, scientific, and medical projects. Use Autodesk 3ds Max Design and Autodesk Showcase visualization software to turn raw design data into beautiful 3D imagery, validate your designs in context, and tell the stories behind your designs. Experience streamlined interoperability and connectivity with the AutoCAD, Autodesk Revit, Autodesk Inventor, and Autodesk Alias families of products—as well as certain third-party design applications.

#### **Autodesk Government Solutions**

For 25 years, Autodesk has been a key player to federal, state, and local governments in providing industry-leading 2D and 3D design software for transportation, utility, and building projects. The Autodesk portfolio of solutions delivers coordinated design data that is leveraged for more accurate documentation, energy analysis, sustainable design alternatives, and visualization that optimizes designs, improves performance, and provides visibility into projects before they are built.

Autodesk helps agencies be more productive, transparent and sustainable in order to meet mission-critical objectives while addressing challenges such as gaining public buy-in, regulatory changes, and aging infrastructure. Learn more at:

http://usa.autodesk.com/industries/government.



The HP Z210 Workstation is the ideal solution for AutoCAD users.



"Our HP Z200 evaluation unit turned in some of the best test results ever, making this system a performance leader."

David Cohn,
Desktop Engineering
http://www.deskeng.com/
articles/aaayyj.htm

#### Your digital workbench

In addition to leading-edge hardware solutions, HP and Autodesk together offer a combination of applications, workstations, and personal productivity tools that combine to provide a complete digital workbench that saves you time. In addition to the HP Z Workstation, HP's key contributions to the digital workbench are:

- HP Remote Graphics Software
- HP Performance Advisor
- HP SpacePilot Pro
- HP Support Assistant

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

HP Remote Graphics Software (RGS) is an advanced 3D screen-sharing utility that allows remote access and workstation sharing. Using HP compression technology, HP RGS compresses the screen image and sends it to receiver software for decompression and display. The receiver captures keystrokes and mouse clicks for return to the workstation. HP RGS minimizes network usage and enables remote access without compromising performance or image quality. For engineers and designers looking to speed the design process, HP RGS enables real-time sharing of high-resolution imagery so creative teams from multiple remote sites can collaborate instantly, regardless of remote distances. For more information see the HP Remote Graphics Software Users Guide at <a href="https://www.hp.com/qo/rgs">www.hp.com/qo/rgs</a>.

#### **HP Performance Advisor**

Put the underlying power of HP Workstations at your fingertips, with powerful features that help maximize your hardware, applications, and productivity. Included with each HP Workstation, HP Performance Advisor makes it easy to keep your professional applications running smoothly by:

- Providing a detailed configuration report so you can easily see what's on your system.
- Organizing graphics driver certification information to help you make informed decisions when loading the latest drivers.
- Tracking memory use and graphically displaying how applications and processes use physical and virtual memory.
- Monitoring system resource usage over time to identify bottlenecks.
- Measure relative performance of key hardware components using Windows Experience Index.

If problems arise, Autodesk support staff can review your HP Performance Advisor configuration report. This report can be generated easily by clicking on the configuration tab and saving the file. For more information see <a href="https://www.hp.com/go/performanceadvisor">www.hp.com/go/performanceadvisor</a>.



"If you want to get there faster, if you want to be certain about the outcome, you opt for a brand that is known for reliability and performance. That's why we use HP Workstations. They have exceeded my expectations again and again."

Philip Ra, Senior Designer, Yazdani Studio of Cannon Design, Los Angeles, Calif.

#### **HP SpacePilot Pro**

Working in 3D is easier and more efficient with the HP SpacePilot Pro Intelligent Controller, which enables two-handed CAD by combining refined sensing technology, extendable speed keys, and a comfortable design so you can minimize repetitive stress. Studies show significant improvements in user productivity when inputting with an HP SpacePilot Pro. Easily change the center of rotation and quickly pan, zoom, and animate assemblies. With HP SpacePilot Pro, you can intuitively push, tilt, or twist the control cap for an immediate response; Speed keys increase your efficiency and make working in 3D more productive and enjoyable than working with just a mouse and keyboard.

#### **HP Support Assistant**

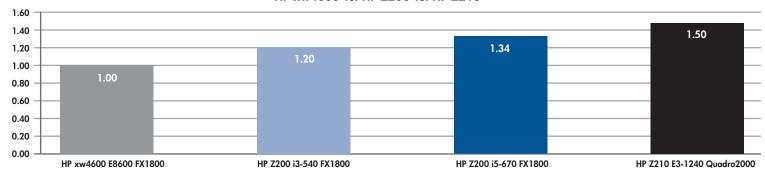
HP Support Assistant makes it easier than ever to own and use an HP Workstation. It comes pre-installed on every workstation with the latest version of Windows Vista® or Windows® 7. HP Support Assistant provides you with the following support features:

- Maintain: Automated software updates and reminders, maintenance routines, and other preventative measures help you keep your HP Workstation in peak condition.
- Troubleshoot: Diagnostic utilities help you investigate problems on your own and find solutions for common issues.
- Learn: An extensive library, including specification and warranty information and online resources, helps you make the most of your HP Workstation.
- Get assistance: Friendly and efficient experts are available to assist you with problems you can't solve on your own. Remote access capabilities allow the HP agent to investigate the problem directly, adjust your system settings, and even install software patches and upgrades.

HP Support Assistant, part of HP Total Care Service and Support, saves you valuable time and allows you to get the most out of your HP Workstation.

# HP Z210 provides up to 50% more AutoCAD Performance

AutoCAD2010 — Cadalyst5.3 HP xw4600 vs. HP Z200 vs. HP Z210



\* This chart compares a HP Z210 Workstation running an Intel Xeon E3-1240 (3.3 GHz) to a HP xw4600 which is approximately 2 year old technology running an Intel Core 2 Duo E8600 (3.33 GHz), so users can get an idea of the performance increase they might see by upgrading. Testing is based up Cadalyst 5.3 Benchmark. Also shown is the HP Z200 running an Intel Core i3-540 (3.06 GHz) and an HP Z200 running an Intel Core i5-670 (3.46 GHz) processor. All systems are running Genuine Microsoft Windows 7 64-bit operating system and Autodesk AutoCAD 2010.



#### Meet the HP Workstation family

Combining bold design, world-class engineering, robust tools, and visual collaboration solutions, the HP Workstation family takes innovation, performance, and reliability to the next level—to give you and your business a competitive edge. All HP Workstations are tested and certified for Autodesk applications. HP tests a comprehensive range of Autodesk applications on our workstations, helping ensure reliable, dependable performance. HP Z Workstations deliver enhanced workstation performance with the latest Intel processors which includes Intel Turbo Boost<sup>2</sup> and Hyper-Threading<sup>1</sup> technologies, in a very affordable package to transform the way engineering and design professionals work. The next-generation system architecture enables fast and efficient performance while HP personal productivity tools and built-in HP reliability help you work more productively and get the job done faster.

#### **HP Z210 Small Form Factor Workstation**

The HP Z210 Small Form Factor Workstation delivers workstation power in a 65% smaller package<sup>3</sup>, provides the same processor and memory functionality as the HP Z210 CMT, has entry level 3D professional graphics and is ideal for AutoCAD and AutoCAD LT users, especially those who work in constrained spaces.

#### **HP Z210 CMT Workstation**

The HP Z210 CMT Workstation delivers excellent performance and was designed with AutoCAD software as its main focus, providing the workstation power for 2D and 3D users to design and edit. It provides ECC memory for users with larger files and is expandable up to midrange graphics for even more 3D performance capability. Many other applications are suitable for this product including Autodesk Navisworks software products.

#### **HP Z400 Workstation**

The HP Z400 Workstation is ideal for engineers, designers, and architects who need the maximum in single-socket processor power. Users of Autodesk Inventor, Revit, AutoCAD vertical, such as Autodesk Civil 3D, AutoCAD Map 3D, will find this becoming their mainstream workstation. It combines ECC memory to handle large files, as well as the full range of 3D professional graphics, and Intel's latest processors.

#### **HP Z600 Workstation**

The HP Z600 Workstation packs compute and visualization power to help you work faster and beat deadlines—delivering maximum performance in our smallest, quietest dual socket design with Intel® Xeon® processors. This workstation is ideal for 3D users who want to take advantage of the multiple cores needed for applications that use rendering, animation, and simulation such as Autodesk 3ds Max, Autodesk Alias Design, Autodesk Simulation products, including the Autodesk Moldflow product line, Autodesk Showcase or application and design suites that combine AutoCAD and Inventor, or AutoCAD and Revit products, to name a few. This system's dual-processor<sup>4</sup> capability is also well-suited for users of single-threaded applications who occasionally need support for multithreaded applications. Or for multithreaded processes within largely single threaded applications that consume users time such as data loading.

#### The HP Z800 Workstation

The HP Z800 Workstation delivers the latest performance in a revolutionary next-generation design that combines extreme speed, massive expandability, and maximum productivity to accelerate even the biggest, most complex engineering and design projects. This high-end workstation provides the expandability, performance, and data storage required by power users of Autodesk 3ds Max, Autodesk Alias Design, Autodesk Showcase, Autodesk Simulation products including the Autodesk Moldflow product line and other visualization, simulation, design, or multithreaded applications, and represents the maximum in dual socket performance and expandability in the HP Z Workstations lines. This is the ideal box for complex Autodesk Suites.

#### **HP Mobile Workstations**

#### HP EliteBook 8740w Mobile Workstation

The HP EliteBook 8740w Mobile Workstation redefines power on the move, combining the latest visualization and computational power with a 17-inch diagonal display for HP's highest performing mobile workstation. This mobile workstation offers reinforced latches and durable construction in a lightweight form factor that has passed most Mil-Std-810F testing, 5 making it a greattool for professionals on the go. The choice of an HP DreamColor display enables true color visualization in addition to top performance for Autodesk applications.

#### HP EliteBook 8440w\*\* and 8540w Mobile Workstations

The HP EliteBook 8440w and 8540w Mobile Workstations offer all the workstation power to run Autodesk applications but in a smaller and lighter size with either a 14-inch or 15-inch diagonal screen. Ideal for those on the go who want to minimize the weight they carry.

# Meet the HP Workstation family

Model	HP Z210 CMT and HP Z210 SFF Workstations	HP Z400 Workstation	HP Z600 Workstation	HP Z800 Workstation	HP EliteBook 8440w/ 8540w/8740w Mobile Workstations
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 occasionally need multi-core performance	Ideal for those who have the largest files and store large data sets	Ideal for those who want the most power a notebook can provide
Operating system	Genuine Windows® 7 Ultimate 64-bit† Genuine Windows® 7 Professional 32-bit†	Genuine Windows® 7 Ultimate 64-bit† Genuine Windows® 7 Professional 32-bit†	Genuine Windows® 7 Ultimate 64-bit† Genuine Windows® 7 Professional 32-bit†	Genuine Windows® 7 Ultimate 64-bit† Genuine Windows® 7 Professional 32-bit†	Genuine Windows® 7 Professional† Genuine Windows 7 Home Premium† Genuine Windows Vista® Business†† FreeDOS
Autodesk solution	AutoCAD LT (SFF), AutoCAD, AutoCAD vertical apps, and Navisworks products	Autodesk Revit Architecture, Revit MEP, AutoCAD Civil 3D, and Autodesk Inventor	Autodesk 3ds Max, Revit power user, Simulation applications, AutoCAD Map 3D and Autodesk Inventor and Autodesk suites	Autodesk 3ds Max power user, Autodesk Alias Design, Autodesk Showcase, Autodesk Simulation including Moldflow products, Maya and suites	All Autodesk applications
Processors <sup>2,4,6,7</sup>	Dual-core Intel® Core™ i3 or quad-core Intel® Core™ i5 and i7 or Intel® quad core Xeon® processor	Dual-, quad-, and six-core Intel® Xeon® processor Intel QuickPath Technology	Quad- and six-core Intel Xeon processor Intel QuickPath Technology	Quad- and six-core Intel Xeon processor Intel QuickPath Technology	Intel® Core™ i5 and i7 mobile processor family with Intel Turbo Boost Technology
Graphics cards	NVIDIA Quadro 400 NVIDIA Quadro 600 NVIDIA Quadro 2000 Intel® HD Graphics (with dual-core processors only) HD Graphics P3000 (with Xeon Processors only) AMD FirePro V3800 AMD FirePro V4800 AMD FirePro V5800	NVIDIA Quadro 400 NVIDIA Quadro 600 NVIDIA Quadro 2000 NVIDIA Quadro 4000 NVIDIA Quadro 5000 AMD FirePro V3800 AMD FirePro V4800 AMD FirePro V5800	NVIDIA Quadro 400 NVIDIA Quadro 600 NVIDIA Quadro 2000 NVIDIA Quadro 4000 NVIDIA Quadro 5000 AMD FirePro V3800 AMD FirePro V4800 AMD FirePro V5800	NVIDIA Quadro 400 NVIDIA Quadro 600 NVIDIA Quadro 2000 NVIDIA Quadro 4000 NVIDIA Quadro 5000 NVIDIA Quadro 6000 AMD FirePro V3800 AMD FirePro V4800 AMD FirePro V5800 AMD FirePro V8800	NVIDIA Quadro FX 380M NVIDIA Quadro FX 880M NVIDIA Quadro FX 1800M NVIDIA Quadro FX 2800M NVIDIA Quadro FX 3800M AMD FirePro M5800 AMD FirePro M7820

# Suggested configurations

#### (ALL APPLICATIONS CERTIFIED)

#### www.hp.com/go/workstationfinder

## HP Recommended configurations for Autodesk architecture, engineering, and construction



AutoCAD LT



AutoCAD, AutoCAD Architecture, and other **AutoCAD based applications** 



Autodesk Revit Architecture Revit Structure, Revit MEP

#### **HP Z210 Small Form Factor Workstation**

Genuine Windows® 7 Professional 64-bit<sup>†</sup> Intel Xeon E3-1240 processor, 3.30 GHz, 80W, 8 MB cache, 1333 MHz memory, Quad-Core, HT 8 GB 1333 MHz DDR3 ECC Memory NVIDIA Quadro 400 LP or HD Graphics P3000 or AMD FirePro V3800 500 GB 7200 rpm SATA9 DVD-ROM SATA 10

HP ZR24w 24-inch Widescreen LCD Monitor HP Remote Graphics Software

HP Performance Advisor HP Scroll Mouse Application certified

#### **HP Z210 CMT Workstation**

Genuine Windows® 7 Professional 64-bit<sup>†</sup> Intel Xeon E3-1240 processor, 3.30 GHz, 80W, 8 MB cache, 1333 MHz memory, Quad-Core, HT 8 GB 1333 MHz DDR3 ECC Memory NVIDIA Quadro 2000 or AMD FirePro V4800 500 GB 7200 rpm SATA9 DVD-ROM SATA 10 AutoCAD certification label HP ZR24w 24-inch Widescreen LCD Monitor

HP Remote Graphics Software HP Performance Advisor HP Scroll Mouse Application certified

Application certified

**HP Z600 Workstation** Genuine Windows® 7 Professional 64-bit<sup>†</sup> Six-core Intel® Xeon® X5667 Processor4,6,7 (3.06 GHz, 8 MB cache, 1333 MHz memory) Intel 5520 chipset 12 GB DDR3 ECC memory8 NVIDIA Quadro 2000 or AMD FirePro V5800 (2) 300 GB 15k rpm SAS9 DVD-ROM SATA 10 HP ZR24w 24-inch Widescreen LCD Monitor HP Remote Graphics Software HP Performance Advisor HP Scroll Mouse

# **HP** recommends for Autodesk manufacturing solutions



**AutoCAD and AutoCAD Mechanical** 



**Autodesk Inventor** 



**Autodesk Inventor Professional Suite or Autodesk Inventor Simulation Suite** 

#### **HP Z210 Workstation**

Application certified

Genuine Windows® 7 Professional 64-bit<sup>†</sup> Intel Xeon E3-1240 processor, 3.30 GHz, 80W, 8 MB cache, 1333 MHz memory, Quad-Core, HT 8 GB DDR3 ECC memory8 NVIDIA Quadro 2000 or AMD FirePro V4800 500 GB 7200 rpm SATA9 DVD-ROM SATA 10 AutoCAD certification label HP ZR24w 24-inch Widescreen LCD Monitor HP Remote Graphics Software HP Performance Advisor HP Scroll Mouse

#### **HP Z400 Workstation**

Application certified

Genuine Windows® 7 Professional 64-bit<sup>†</sup> Quad-core Intel® Xeon® W36804,6,7 (3.33 GHz, 8 MB cache, 1333 MHz memory) Intel X58 Express chipset 12 GB DDR3 ECC memory8 NVIDIA Quadro 2000 or AMD FirePro V5800 300 GB 10k rpm SATA9 HP ZR24w 24-inch Widescreen LCD Monitor HP Remote Graphics Software HP Performance Advisor HP Scroll Mouse

**HP Z600 Workstation** Genuine Windows® 7 Professional 64-bit<sup>†</sup> Dual quad-core Intel® Xeon® X56674,6,7 (3.06 GHz, 8 MB cache, 1333 MHz memory) Intel 5520 chipset 12 GB DDR3 ECC memory8 NVIDIA Quadro FX 4000 (2) 300 GB 10k rpm SATA9 DVD-ROM SATA 10 HP ZR24w 24-inch Widescreen Autodesk LCD Monitor HP Remote Graphics Software HP Performance Advisor

HP Scroll Mouse

# Suggested configurations (continued)

(ALL APPLICATIONS CERTIFIED)

#### www.hp.com/go/workstationfinder

### HP recommends for all Autodesk applications



Mobility (for all Autodesk applications)



AutoCAD Civil 3D/AutoCAD Map 3D



Autodesk Alias, Autodesk Showcase, Autodesk 3ds Max, Autodesk Simulation including Autodesk Moldflow products, Autodesk Maya

#### HP EliteBook 8740w Mobile Workstation

Application certified 3-year limited warranty

Genuine Windows® 7 Professional 64-bit\*
Intel Core i7-720QM Processor4.6.8 (1.66 GHz, 6 MB L3 cache)
Up to 2.8 GHz with Intel Turbo Boost Technology
17.0-inch diagonal WUXGA WVA anti-glare (1920 x 1200)
NVIDIA Quadro FX 3800M with 1 GB GDDR3
8 GB DDR3 1333Mhz RAM memory8
320 GB 7200 rpm SATA 2.5-inch hard drive9
DVD/CD RW Combo¹0
7.8 pounds¹¹
Business rugged design
HP Remote Graphics Software
HP Performance Advisor

#### **HP Z600 Workstation**

HP Scroll Mouse

Application certified

Genuine Windows® 7 Professional 64-bit†
Dual Quad-Core Intel X5667<sup>4,6,8</sup> (3.06 GHz, 12MB cache, 1333 MHz memory)
Intel 5520 chipset
6 GB DDR3 ECC memory<sup>8</sup>
NVIDIA Quadro 4000
(2) 300 GB 10k rpm SATA RAID 0°
DVD-ROM SATA<sup>10</sup>
HP ZR24ww 24-inch Widescreen LCD Monitor
HP Remote Graphics Software
HP Performance Advisor

#### **HP Z800 Workstation**

Application certified

Genuine Windows® 7 Professional 64-bit†
Dual Quad-Core Intel X5680<sup>4,6,8</sup> (3.33 GHz, 12MB cache, 1333 MHz)
Intel 5520 (Dual) chipset
12 GB DDR3 ECC memory®
NVIDIA Quadro 4000 or Quadro 5000
(3) 300 GB 10k rpm SATA®
DVD-ROM SATA®
DVD-ROM SATA®
HP ZR24w 24-inch Widescreen LCD Monitor
HP Remote Graphics Software
HP Performance Advisor
HP Scroll Mouse

# For more information about HP and Autodesk solutions,

# please visit www.hp.com/go/autodesk and www.hp.com/go/hpautodesk

Screen images courtesy of Autodesk, Cannon Design, WAM-V image courtesy of Marine Advanced Research, Inc. 2009 by Marine Advanced Research, Inc, Turbosquid (model by Anypixel).

- † 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 <a href="https://www.microsoft.com/windows-7">www.microsoft.com/windows-7</a> for details.
- †† Certain Windows Vista product features require advanced or additional hardware. See <a href="www.microsoft.com/windowsvista/getready/hardwarereqs.mspx">www.microsoft.com/windowsvista/getready/hardwarereqs.mspx</a> and <a href="www.microsoft.com/windowsvista/getready/hardwarerequedy/hardwarereqs.mspx">www.microsoft.com/windowsvista/getready/hardwarerequedy/hardwarer
- 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 <a href="http://www.intel.com/info/hyperthreading">http://www.intel.com/info/hyperthreading</a> for providing the software provider to determine compatibility.
- 2 Enabling Intel® Turbo Boost Technology (Intel® TBT) requires a PC with a processor with Intel TBT capability. Intel TBT performance varies depending on hardware, software, and overall system configuration. For more information, see <a href="https://www.intel.com/technology/turboboost">www.intel.com/technology/turboboost</a>.
- 3 HP Z200 dimensions = 450 mm x 178 mm x 456 mm (HWD). HP Z200 SFF dimensions = 338 mm x 100 mm x 378 mm (HWD), so the HP Z200 SFF is 65% smaller.
- 4 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.
- Testing was not intended to demonstrate fitness for DOD contracts requirements or for military use. Test results are not a guarantee of future performance under these test conditions.
- 6 Intel's numbering is not a measurement of higher performance.
- 7 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 <a href="http://www.intel.com/info/em64t">http://www.intel.com/info/em64t</a> for more information.

  8 Each processor supports up to 2 channels (HP Z200/HP Z200 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
- Each processor supports up to 2 channels (HP Z200/HP Z200 SFF) or 3 channels (HP Z400/HP Z600/HP Z600/HP Z600) 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.
- 9 For hard drives, 1 GB = 1 billion bytes. 1 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 and up to 20 GB for Windows 7.
- 10 Actual speeds may vary. Does not permit copying of commercially available DVD movies or other copyright protected materials. Intended for creation and storage of your original material and other lawful uses.
- 11 Weight varies by configuration

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