HP and Autodesk
Give Yourself an Engineering Edge
The HP commitment to innovation and solutions excellence, and HP’s relationship with Autodesk provide you with an engineering edge. HP workstations are built with the latest technology, including processors from Intel® or AMD; professional graphics cards from NVIDIA or AMD ATI; Microsoft® Windows® operating systems; high-speed storage; fast, reliable memory that is designed, tested and built for both high performance and extreme stability when running professional applications; and HP Performance Tuning Framework. In addition, all workstations can run HP Remote Graphics Software. You get world-class design and unique, HP features, providing you with an engineering edge that helps maximize your design productivity.

HP Innovation
HP innovation is most evident in our first-to-market features. Innovation keeps you ahead of your competition by helping to improve productivity and shorten design cycles. HP workstations were first to include 64-bit1 architecture, Quad-Core2 processing, 80 PLUS efficient power supplies, tool-less chassis, state-of-the-art acoustics and liquid cooling.

HP Engineering Helps You
HP engineers focus their technical expertise on the complete solution—Autodesk applications running on HP hardware. Autodesk applications are thoroughly tested and certified on our workstations, so you can be assured that your solution works flawlessly. We leverage this application knowledge in HP Performance Tuning Framework, which enables you to adjust settings to assure your applications reach peak performance. If the need arises, our application experts are available for support calls and resolving customer issues. Together with Autodesk, we help customers achieve their goals.

Autodesk
Autodesk is the world leader in 2D and 3D design software for the manufacturing, building and construction, and media and entertainment markets with 8 million users worldwide. Since its introduction of AutoCAD software in 1982, Autodesk has developed the broadest portfolio of state-of-the-art digital prototyping solutions to help customers experience their ideas before they are real.

Autodesk Architecture, Engineering and Construction (AEC) Solutions
Autodesk helps AEC professionals realize greater productivity through more complete design information—from AutoCAD-based design and documentation software to advanced technology for building information modeling (BIM), dynamic civil modeling, and collaborative project management. Autodesk’s AEC solutions include AutoCAD, AutoCAD Architecture, Revit® Architecture, Revit Structure and Revit MEP, among others.

Autodesk Design Visualization Solutions
Autodesk has changed the way visualization professionals, designers, game developers and visual effects artists work. With Autodesk solutions, designers can develop digital prototypes, 3D modeling and animation, and photorealistic 3D rendering. Autodesk’s industry-leading solutions include Autodesk VIZ, Autodesk 3ds Max®, Autodesk Showcase™, AliasStudio™ and others.

Autodesk Manufacturing Solutions
Manufacturers use Autodesk solutions to get products to market faster. For 2D drafting and detailing, 2D mechanical designs, 3D digital prototyping needs and more, Autodesk helps manage the complete process from concepts to manufacturing. Autodesk’s manufacturing solutions include AutoCAD, Autodesk Inventor™ and AutoCAD Mechanical, among others.

Autodesk Infrastructure and Government Solutions
Autodesk solutions help with the design, drafting and management of civil engineering projects, land planning and analysis, and creation and management of spatial data. Its industry solutions include AutoCAD, AutoCAD Civil 3D®, AutoCAD Land Desktop, AutoCAD Map 3D, Autodesk MapGuide® and more.

“Autodesk and HP have partnered to provide unparalleled design solutions to our customers in the building, manufacturing and media & 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
Engineers, architects, designers, GIS professionals and visualization experts all gain from the HP commitment to innovation and solutions excellence, as well as the unique relationship between HP and Autodesk®. All HP workstations are built with leading-edge technology, and you can select a configuration that is ideal for your specific needs. Consider the choices: processors from Intel® or AMD; professional graphics cards from NVIDIA or AMD ATI; Microsoft® Windows® operating systems; high-speed storage; fast, reliable memory that is designed, tested and built for both high performance and extreme stability when running professional applications; HP Performance Tuning Framework and HP Remote Graphics Software. HP innovations and world-class design distinguish HP workstations from the competition.

If you want HP first-to-market technologies like 64-bit1 architecture, quad-core2 processors, 80 PLUS efficient power supplies, state-of-the-art acoustics and liquid cooling, we’ve got them. Our ability to be first helps you stay a step ahead of your competition. HP is Autodesk’s top hardware partner. We share technology road maps to assure our products work well together. Autodesk applications are developed and tested on HP hardware, so you can be confident when you choose HP workstations. Together, Autodesk and HP offer a comprehensive portfolio of innovative hardware and software solutions—tuned and integrated to meet the needs of our customers. Our close relationship means that HP technology—along with our engineering expertise—provides you solutions that perform not just today, but for the long run.

HP engineers bring technical expertise to the complete solution—Autodesk applications and HP hardware. Autodesk applications are more thoroughly tested on our workstations than on any other hardware system. We leverage our systems knowledge in HP Performance Tuning Framework, which enables you to make system adjustments so your applications work at peak performance.

HP xw4550 Workstation
The HP xw4550 Workstation makes the power of a highly reliable, professional-class system affordable for most small and mid-sized businesses. Tested and optimized for Autodesk, the HP xw4550 provides performance, expandability, entry-to mid-range 3D graphics and certified applications. Its AMD Opteron™ Dual-Core2 processor is second generation technology. Designed with a tool-less chassis for easy service, the HP xw4550 Workstation can be configured with a variety of processor speeds and memory configurations to suit your specific requirements. With an 80 PLUS efficient power supply standard and ENERGY STAR® qualified configurations, the HP xw4550 is designed to optimize energy use. This workstation’s combination of price and performance make it an outstanding value.

HP xw4600 Workstation
The HP xw4600 Workstation combines next-generation performance technology with expandability, reliability and affordability. It is based on the new Intel X38 Express performance chipset and the latest workstation-class Dual- and Quad-Core2 Intel processors. The HP xw4600 supports up to 8GB of memory and comes with your choice of 2D or 3D professional graphics cards. It’s powerful enough to meet the demanding requirements of data-intensive applications like AutoCAD® Revit®, Autodesk Inventor™, Autodesk 3ds Max®, Civil 3D® or Map 3D. Optional Remote Graphics Software allows you to access and share the desktop of a remote computer over a standard network, making your busy life a bit easier. HP Performance Tuning Framework makes it simple for you to optimize your system for high performance. With an 80 PLUS efficient power supply standard and ENERGY STAR® qualified configurations, the HP xw4550 is designed to optimize energy use.
**HP xw6600 Workstation**

The HP xw6600 Workstation is a high-performance machine engineered for environments where space is at a premium and noise must be minimized. Its Quad-Core\(^\text{\textregistered}\) Intel\(^\text{\textregistered}\) Xeon\(^\text{\textregistered}\) processor and chipset technology provides ample power for your team members to create, design and analyze more in less time. Its dual Gen2 PCI-e interfaces leverage an architecture that can deliver up to twice the graphic performance of previous systems. The HP xw6600 is designed for expandability in anticipation of your future needs. It achieves quiet operation by paying close attention to airflows, and by using quiet fan technology. Its system design is energy wise, using 80-watt processors and an 80 PLUS efficiency power supply.

**HP xw4600 Workstation**

The HP xw6600 Workstation performs better

<table>
<thead>
<tr>
<th>HP xw4600 Workstation</th>
<th>HP xw4300 Workstation</th>
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<tbody>
<tr>
<td>3.0 GHz(^\text{\textregistered}) Intel Core 2 Duo Processor</td>
<td>Intel Pentium 4(^\text{\textregistered}) Processor 3.8 GHz(^\text{\textregistered})</td>
</tr>
<tr>
<td>Genuine Microsoft(^\text{\textregistered}) Windows(^\text{\textregistered}) XP Professional</td>
<td>Genuine Microsoft(^\text{\textregistered}) Windows(^\text{\textregistered}) XP Professional</td>
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<tr>
<td>NVIDIA Quadro FX 1700</td>
<td>NVIDIA Quadro FX 4500</td>
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Source: HP Workstation Technical Consulting Lab
**HP Recommended Configurations for Autodesk Architecture, Engineering and Construction**

(ALL APPLICATIONS CERTIFIED)

**HP xw4550 Workstation**
- Genuine Windows Vista® Business 32-bit
downgrade to Genuine Microsoft® Windows® XP Professional 32-bit
- Dual-core® AMD Opteron™ Processor Model 1220 [2.8 GHz]
- HyperTransport™ 1000 MHz
- Chipset: AMD 690G with Radeon X1250
- 2 GB DDR2 677 MHz ECC memory
- NVIDIA Quadro FX 570 (FX370 for AutoCAD LT)
- HP LP2065 20-inch diagonal LCD Monitor
- 160 GB7 SATA 3 Gb/s
- DVD-ROM SATA8
- HP Performance Tuning Framework
- HP Scroll Mouse
- Application certified

**HP xw4600 Workstation**
- Genuine Windows Vista® Business 32-bit
downgrade to Genuine Microsoft® Windows® XP Professional 32-bit
- Intel® Core™ 2 Duo® Processor 3.0 GHz E6850
- 1333 MHz Front Side Bus®
- Intel X38 Express chipset
- 4 GB DDR2 677 MHz ECC memory
- NVIDIA Quadro FX570
- HP LP2065 20-inch diagonal LCD Monitor
- 160 GB8 SATA 3 Gb/s
- DVD-ROM SATA®
- HP Performance Tuning Framework
- HP Scroll Mouse
- Application certified

**HP xw6600 Workstation**
- Genuine Windows Vista® Business 32-bit
downgrade to Genuine Microsoft® Windows® XP Professional 32-bit
- If model sizes are large (120MB or larger) consider
  Genuine Windows Vista® Business 64-bit
downgrade to Genuine Microsoft® Windows®
  XP Professional 64-bit
- Dual-Core® Intel® Xeon™ Processor 5260/3.33
  GHz® or if predominantly Revit Rendering use
  Quad-Core Intel Xeon Processor 5450/3.00 GHz
  1333 MHz Front Side Bus®
- 4 GB DDR2-667 ECC memory for 32-bit system
  or 8 GB DDR2-667 ECC memory for 64-bit System
- NVIDIA Quadro FX1700
- HP LP3065 30-inch diagonal Widescreen
  LCD Monitor
- 146 GB7 15k rpm SATA 3 Gb/s
- CD-RW/DVD-ROM Combo8
- HP Performance Tuning Framework
- HP Scroll Mouse
- HP SpacePilot
- Application certified

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**HP Recommended Configurations for Autodesk Manufacturing Solutions**

(ALL APPLICATIONS CERTIFIED)

**HP xw4600 Workstation**
- Genuine Windows Vista® Business 32-bit
downgrade to Genuine Microsoft® Windows® XP Professional 32-bit
- Intel® Core™ 2 Duo® Processor 3.0 GHz E6850
- 1333 MHz Front Side Bus®
- Intel X38 Express chipset
- 4 GB DDR2 677 MHz ECC memory
- NVIDIA Quadro FX570
- HP LP2065 20-inch diagonal LCD Monitor
- 160 GB7 SATA 3 Gb/s
- DVD-ROM SATA®
- HP Performance Tuning Framework
- HP Scroll Mouse
- HP SpacePilot
- Application certified

**HP xw4600 Workstation**
- Genuine Windows Vista® Business 32-bit
downgrade to Genuine Microsoft® Windows® XP Professional 32-bit
- Intel® Core™ 2 Duo® Processor 3.0 GHz E6850
- 1333 MHz Front Side Bus®
- Intel X38 Express chipset
- 8 GB DDR2 677 MHz ECC memory
- NVIDIA Quadro FX1700
- HP LP2465 24-inch diagonal Widescreen
  LCD Monitor
- 146 GB8 15K rpm SATA 3 Gb/s
- DVD-ROM SATA®
- HP Performance Tuning Framework
- HP Scroll Mouse
- Application certified

**HP xw6600 Workstation**
- Genuine Windows Vista® Business 32-bit
downgrade to Genuine Microsoft® Windows® XP Professional 32-bit
- If model sizes are large (120MB or larger) consider
  Genuine Windows Vista® Business 64-bit
downgrade to Genuine Microsoft® Windows®
  XP Professional 64-bit
- Dual-Core® Intel® Xeon™ Processor 5260/3.33
  GHz® or if analysis run simultaneously use
  Quad-Core Intel Xeon Processor 5450/3.16 GHz
  1333 MHz Front Side Bus®
- 4 GB DDR2-667 ECC memory for 32-bit system
  or 8 GB DDR2-667 ECC memory for 64-bit System
- NVIDIA Quadro FX1700
- HP LP3065 30-inch diagonal Widescreen
  CD Monitor
- (2) 146 GB7 15K rpm SATA 3 Gb/s
- CD-RW/DVD-ROM Combo8
- HP Performance Tuning Framework
- HP Scroll Mouse
- HP SpacePilot
- Application certified
HP Recommended Configurations
(ALL APPLICATIONS CERTIFIED)

Mobility (for all Autodesk applications)
HP Compaq 8710w Mobile Workstation
Genuine Microsoft® Windows® XP Professional 32-bit
1.33 GHz4 2 MB L2 cache
800 MHz Front Side Bus5
17 inch diagonal WXGA display
NVIDIA Quadro FX1600m with 512 MB memory
2 GB DDR2-667 GDDR3 memory
DVD/CD RW Combo8
7.5 pounds10
HP Performance Tuning Framework
Application certified
3–year limited warranty

AutoCAD Civil 3D
AutoCAD Map 3D

Autodesk AliasStudio
Autodesk Showcase
Autodesk 3ds Max
Autodesk VIZ

HP xw6600 Workstation
Genuine Windows Vista® Business 32-bit
downgrade to Genuine Microsoft® Windows® XP Professional 32-bit6
If model sizes are large (120GB or larger) consider
Genuine Windows Vista® Business 64-bit
downgrade to Genuine Microsoft® Windows® XP Professional 64-bit
Dual-Core® Intel® Xeon® Processor 5260/5360/5560/7460/7560
1333 MHz Front Side Bus5
4 GB DDR2-667 ECC memory for 32-bit system
or 8 GB DDR2-667 ECC memory for 64-bit system
NVIDIA Quadro FX1700
HP LP3065 30-inch diagonal Widescreen LCD Monitor
(2) 146 GB7 15K rpm SATA 3 Gb/s RAID9
CD-RW/DVD-ROM Combo9
HP Performance Tuning Framework
HP Scroll Mouse
Application certified

For more information about HP and Autodesk solutions, please visit www.hp.com/go/autodesk.

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Screen shot Images courtesy of Autodesk.

1. 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/amd64 for more information.
2. Dual-Core and Quad-Core are new technologies designed to improve performance of multithreaded software products and hardware-aware multithreading operating systems and may require appropriate operating system software for full benefit. Not all customers or software applications will necessarily benefit from use of this technology.
3. Intel’s numbering is not a measurement of higher performance.
4. GHz refers to internal clock speed of the processor. Other factors beside clock speed may impact system and application performance.
5. Certain Windows Vista product features require advanced or additional hardware. See http://www.microsoft.com/windowsvista/getready/hardwaresreq.mspx and http://www.microsoft.com/windowsvista/getready/capable.mspx 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 http://www.windowsvista.com/upgradeadvisor. Available for end user customers that are businesses (including governmental or educational institutions) expected to annually order at least #3 Customer Systems with the same Custom Image.
6. Actual bus speed is less. Listed bus speed represents the equivalent effective data transfer rate.
7. 1 GB equals 1 billion bytes. Actual formatted capacity is less. Up to 8 GB of hard drive (or system disk) is reserved for the system recovery software.
8. 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. Double Layer discs can store more data than single layer discs. Double-layer discs burned with this drive may not be compatible with many existing single-layer DVD drives and players.
9. Hardware RAID is not supported on Linux systems. The Linux kernel, with built-in software RAID, provides excellent functionality and performance. It is a good alternative to hardware-based RAID. Please visit http://h20000.www2.hp.com/bc/docs/support/SupportManual/c00060684/c00060684.pdf for RAID capabilities with Linux.
10. AMD’s numbering is not a measurement of clock speed.
11. This system requires a separately purchased 64-bit operating system and 64-bit software products to take advantage of the 64-bit processing capabilities of the AMD Opteron 64 processor. Given the wide range of software applications available, performance of a system including a 64-bit operating system will vary.
12. Weight will vary by configuration.
13. Up to 1 GB may not be available with 32-bit operating systems due to system resource requirements.
HP provides more to Autodesk customers
- HP thoroughly tests and certifies each HP Personal Workstation for more Autodesk applications than anyone else.
- HP submits workstations to Autodesk for its complete testing.
- Autodesk uses HP workstations internally to develop and test their applications.
- HP workstation graphics are thoroughly tested to support Autodesk products.
- HP Performance Tuning Framework has special features to optimize the performance of Autodesk applications.
- HP’s experts are available to support customers and recommend configurations.

HP and Autodesk together
HP has a unique relationship with Autodesk, working as its top hardware partner. This allows HP and Autodesk to offer a comprehensive portfolio of solutions that addresses the needs of our joint customers with innovative hardware and software that is tuned and integrated. Our close relationship and engineering expertise assure solutions that perform not only today, but for the long run.

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. Using patented HP compression technology, RGS minimizes network usage and enables remote access without compromising performance or image quality. The technology enables real-time sharing of high-resolution imagery, allowing creative teams from multiple remote sites to function like they are all in the same room. Engineers and designers find immense value in the technology because communication is instantaneous and more people can participate. It speeds the design process.

HP Performance Tuning Framework
This exclusive HP tool—pre-installed on all HP Personal Workstations—makes it a snap to configure and update HP workstations, improving their stability and performance. HP Performance Tuning Framework (PTF) has many features to help you work faster and more productively, while reducing hassles. HP PTF can:
- Provide a detailed configuration report so you can easily see what’s on your system.
- Organize graphics driver certification information to help you make informed decisions when loading the latest drivers.
- Track memory use and graphically display how applications and processes use physical and virtual memory.
- Measure subsystem performance using Vista Performance monitoring.

HP PTF offers numerous other features, some of which are application specific. The Autodesk support staff is trained on HP PTF, so just send your PTF configuration file when there is a problem—it’s as simple as that. Best of all, HP PTF is free.

HP Two-handed CAD
Two-handed CAD provides substantial personal productivity boosts for most users. HP’s 3D motion controller complements a traditional mouse to deliver the advantages of two-handed CAD to Autodesk. Users can easily change the center of rotation and quickly pan, zoom and animate assemblies. HP’s 3D motion controller allows you to work faster with less movement, and significantly fewer mouse clicks.

“One of the main differences that we’ve found with HP is that they are a business partner and they’re thinking about what Bill Case and Peter Basso want to accomplish. And they know it’s a long-term relationship and it’s going to work out for them. And I’m glad it’s a long-term relationship for us because I want them to be there. It works brilliantly.”

Bill Case, Senior Associate and Manager of Technical Support, Peter Basso Associates, Inc.
Go Autodesk website
HP maintains a dedicated website for all users of Autodesk applications at www.hp.com/go/autodesk. The website helps with your workstation selection, providing the latest in recommended configurations for Autodesk, as well as certification and other useful information.

HP workstation or PC?
For Autodesk professionals, the answer is easy! Engineering and design professionals require high-performance systems to support their complex 2D and 3D applications. HP workstations offer advanced features that deliver more power, stability, and dependability than standard PCs, including:

- Workstations are designed to process the data sets and execute the instructions of complex applications for the CAD, AEC and GIS market.
- Full testing and certification for most CAD, CAE, AEC and GIS applications.
- Enhanced processing power using AMD and Intel processors.
- More memory capacity and expandability than PCs.
- Advanced chipsets, not typically offered on PCs, for high performance.
- Professional-level graphics cards and advanced chipsets for high performance (not typically found on PCs).
- Disk drives that ensure high performance and reliability.

For more information about HP and Autodesk solutions, please visit www.hp.com/go/autodesk.

1. 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.
2. Dual-Core and Quad-Core are new technologies designed to improve performance of multithreaded software products and hardware-aware multithreading operating systems and may require appropriate operating system software for full benefit. Not all customers or software applications will necessarily benefit from use of this technology.
3. Performance subject to network speed.