

# Dell Precision™ 390 Workstation

Your work isn't entry level, so why consider a workstation that delivers anything less than advanced levels of performance? With the Dell Precision 390 you don't have to. Experience the power, scalability, and reliability you've been dreaming about with a system that's specifically designed for professionals as demanding as their complex applications.

## Powerful, Reliable, Affordable

Key architectural advancements on the Dell Precision 390 workstation are designed to enable groundbreaking performance, rock-solid reliability, and ultimate scalability to design, create, analyze and animate without compromise. Break performance barriers, without breaking the bank, on an optimized workstation that lets you power through complex tasks and complete your projects fast.

- Revolutionary new Intel® Core™ processor microarchitecture redefines performance with features that help to deliver performance gains of up to 54% in compute performance over comparable Intel® Pentium® D and Extreme Edition processors¹
- Up to 2TB² of fast local storage with flexible options that include economical Serial ATA or highly reliable Serial Attached SCSI
- Support for up to 8GB³ of high speed DDR2 ECC or non-ECC memory enabling high performance by reducing the need to swap large amounts of data to disk
- Innovative chassis with additional venting over previous generations provides enhanced cooling to internal components without compromising acoustics

## Big Changes in a Micro-architecture

The Dell Precision 390 builds upon the revolutionary new Intel Core processor microarchitecture to deliver an optimized workstation that breaks performance barriers when compared with the NetBurst architecture of previous generations. What's the difference? Advanced features that combine to deliver a computing experience that's incredibly rich, incredibly powerful, and incredibly fast.

- Wide Dynamic Execution—More data can be processed per clock cycle
- Advanced Smart Cache—Optimises memory to help improve performance running complex applications
- Smart Memory Access—Designed to lower memory latency and improve data access
- Advanced Digital Media Boost—Allows one complete 128-bit execution step in a single clock cycle rather than two for fast multimedia performance
- Intelligent Power Capability—Designed to improve power management

## Visual Realism with High-Performance OpenGL Graphics

Dell Precision offers an intelligent selection of ISV certified workstation-class graphics cards that can satisfy a range of customer needs from superb OpenGL 3D performance to dependable and affordable 2D performance.

## Power to Scale

With a choice of ECC or non-ECC memory, optional RAID capability and a flexible dual-orientation chassis, the Dell Precision 390 provides a highly scalable architecture that delivers outstanding speed and reliability to the cost-conscious professional. Imagine having the freedom to work the way you've always wanted. With Dell Precision you can. Plus, with ISV application certification, you know your system is performance tuned to help ensure that your applications will run smoothly.

## Peace of Mind Through ISV Application Certification

Dell partners with leading Independent Software Vendors (ISVs) to certify system and application compatibility to help ensure flawless compatibility and optimized performance in demanding workstation environments. And, to assure access to the latest productivity enhancing technology solutions, Dell invests in the workstation ISV community by providing the hardware platforms needed to further multithreaded application development. By maintaining strong relationships with software developers, Dell engineers can provide you with ongoing optimization and support, should you need them.



# Dell Precision™ 390 Workstation

## Penang, Malaysia

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## Thailand

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Bangkok 10120 Thailand

Processors	Dual-core Intel® Core™ 2 Extreme with 1066MHz FSB, 4MB L2 cache, XD, VT, EIST Dual-core Intel Core 2 Duo with 1066MHz FSB, up to 4MB L2 cache, XD, VT, EIST Single-core Intel Pentium® 4 with 800MHz FSB, 2MB L2 cache, HT, XD, EIST (6xx series) All processors support 64-bit computing with Intel EM64T
Operating systems	Dell recommends Microsoft® Windows® XP Professional for Business Genuine Windows XP Professional; Genuine Windows XP Professional x64 Edition; Windows Vista™ capable* Red Hat® Enterprise Linux WS v.4 (IA32); Red Hat Enterprise Linux WS v.4 (Intel EM64T)
Chipset	Intel 975X Express chipset
Memory	Four DIMM slots support up to 8GB <sup>3</sup> dual-channel <sup>2</sup> DDR2 533 or 667MHz non-ECC and ECC memory
Flash BIOS	8MB flash memory for system BIOS; SMBIOS 2.3.1 support
Graphics	Support for PCI Express x16 graphics cards up to 150 watts and with up to 512MB graphics memory including: NVIDIA Quadro® FX 4500; NVIDIA Quadro FX 3500; NVIDIA Quadro FX 3450; ATI™ FireGL™ 7200; NVIDIA Quadro FX550; ATI FireGL V3400; NVIDIA Quadro NVS 285. All graphics cards support dual monitor configurations
Hard drives	SATA 3.0Gb/s: 7200RPM with 8MB DataBurst Cache™ up to 750GB <sup>2</sup> , 10K RPM with 16MB DataBurst Cache up to 160 GB <sup>2</sup> SAS: 10K RPM up to 300GB <sup>2</sup> , 15,000RPM up to 146GB <sup>2</sup> (requires SAS 5/iR controller card) Chassis supports up to four internal SATA drives (2.0TB <sup>2</sup> storage maximum) or three SAS drives
Removable Storage	Optional: DVD±/-RW <sup>6</sup> ; CD-RW/DVD Combo; CD-RW; DVD-ROM <sup>4</sup> ; CD-ROM; USB media card reader; USB Floppy Drive; Dell USB Memory Keys up to 512MB <sup>8</sup>
Hard drive controller	Int. SATA 3.0Gb/s controller with support for RAID 0, 1, 5 and 10; optional SAS 5/iR controller card for SAS RAID 0, 1
Network controller	Integrated Broadcom® 5754 Gigabit Ethernet <sup>9</sup> controller with Remote Wake Up and PXE support
Audio controller	Integrated High Definition Audio (Rev 1.0 Specification) with Sigmatel STAC9200 High Definition Audio CODEC and Intel ICH7R AC97/ High Definition digital controller
Optional Audio	Sound Blaster® X-Fi™ XtremeMusic (D) <sup>10</sup> with Dolby® Digital 5.1
Optional Modem	Dell 56K <sup>11</sup> v.92 Data/Fax PCI modem
<b>CHASSIS</b>	
Dual-orientation desktop	Mini-tower orientation: (HxWxD) 17.6" x 6.8" x 18.4"; 44.7 cm x 17.1 cm x 46.8 cm
Slots & Bays	Internal - Two 3.5" HDD bays; External - Two 5.25" optical bays, one 3.5" flex bay with an additional 3.5" bay in mini-tower; One PCIe x16 graphics slot, One PC-e x8 slot wired as x4, One PCIe x1 slot; Three 5v PCI 32bit/33Mhz slots
Standard I/O ports	Eight USB 2.0: two front, five back, one internal; One serial (2nd serial optional); One parallel; Two PS/2; One RJ-45; Microphone and headphone connector on front panel; Two rear connectors for line-in and line-out
Optional I/O	IEEE 1394a available with add-in card; connector located on front panel
Power Supply	375 watts Power Factor Correcting (PFC) power supply
Security	Trusted Platform Module 1.2; WAVE Embassy Trust Suite; Setup/BIOS Password; I/O Interface Security; Chassis intrusion switch; Biometric Fingerprint Reader; Kensington lock
<b>EXTERNAL PERIPHERALS</b>	
Monitors	Performance flat panel displays, Dell UltraSharp™ widescreen and standard flat panel displays from 17" viewable to 30" viewable; Analog flat panel displays and CRT monitors also available
Keyboard	USB: Dell QuietKey, Enhanced Multimedia, Smartcard Reader keyboard; Bluetooth Keyboard and Mouse
Mouse	USB: Dell two-button mechanical with scroll, Dell two-button optical with scroll
Optional Speakers	Internal chassis speaker; Dell two and three piece stereo system; Dell sound bar available for flat panel displays
<b>ENVIRONMENTAL &amp; REGULATORY</b>	
Standards	TCO99, Blue Angel, Green PC, BSMI, C-TICK, CE, FCC, IRAM, NEMKO, NFPA 99, SABS, SASO, TCO, TUV, UL, VCCI, WEEE
Lead Free	Environmentally conscious design is RoHS Compliant <sup>12</sup> /Lead Free <sup>13</sup>
<b>SERVICE &amp; SUPPORT</b>	
Base	3-Year Limited Warranty (Next Business Day onsite service <sup>14</sup> )

NOTE: Some applications and peripherals are not compatible with a 64-bit operating system environment. Be sure to verify with all of your current application vendors that your full application suite is compatible before purchasing a Dell Precision workstation with a 64-bit operating system. Dell PCs use genuine Microsoft Windows. [www.microsoft.com/privacy/howtotell](http://www.microsoft.com/privacy/howtotell). Dell's Terms and Conditions of Sales and Service apply and are available upon request. Dell cannot be held responsible for errors in typography or photography.

- Up to 54% faster compute performance: Gains based on the SPECint\_rate2000 single threaded benchmark test performed by Dell Labs in July 2006 on the Dell Precision 390 with Intel Core 2 Duo E6400 2.13GHz, E6600 2.4GHz and Extreme X6800 2.93GHz processors, all with 1066MHz FSB as compared to the Dell Precision 380 with Intel Pentium D 940 3.2GHz and 950 3.4GHz processors with 800MHz FSB and the Intel Extreme Edition 965 3.73GHz processor with 1066MHz FSB. All systems were configured with 4GB DDR2 533 NECC memory, NVIDIA Quadro® FX 4500 512MB OpenGL graphics, 80GB SATA 7200RPM HDD and Microsoft® Windows® XP Pro SP2. Actual performance will vary based on configuration, usage and manufacturing variability.
- For hard drives, one GB means 1 billion bytes and one TB equals one trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.
- The total amount of usable memory available will be less, depending on the actual system configuration. To utilize more than 4GB of memory requires a 64-bit OS.
- Based on currently available information from Microsoft. Requirements subject to change. All Dell systems meet Microsoft's minimum requirements to run Windows Vista, provided they have a minimum of 512MB RAM. Systems that meet only minimum requirements will not have the full benefit of all Windows Vista features. Please visit [dell.com/vista](http://dell.com/vista) for more information.
- Dual-channel memory requires two each of the same capacity memory DIMMs.
- Discs burned with this drive may not be compatible with some existing drives and players; using DVD-R media provides maximum compatibility.
- DVD-ROM drives may have write-capable hardware that has been disabled via firmware modifications.
- For writable storage devices, MB means 1 million bytes; total accessible capacity varies depending on operating environment.
- This term does not connote an actual operating speed of 1 GB/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.
- Certain system components may differ from the retail version.
- Download speeds are limited to 53Kbps. Upload speeds are less (about 30Kbps). Speeds can vary by line condition and modem manufacturer. Analog phone line and service required.
- Meets the requirements of the EU Directive on the Restriction of the use of certain Hazardous Substances dated January 27, 2003.
- Per the EU Directive on the Restriction of the use of certain Hazardous Substances directive, this system (chassis and factory installed components) or configuration contains less than 0.1% lead by weight.
- Technician, replacement part or unit (depending on service contract) will be dispatched if necessary following phone-based troubleshooting. Subject to parts availability, geographical restrictions (on site and/or next business day service not available in some locations) and terms of service contract. Service timing dependent upon time of day call placed to Dell. Defective unit must be returned or paid for. Replacements may be refurbished. For Dell projectors, bulbs have a 90-day limited warranty.

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