

Dell Precision™ 490 Workstation



Introducing the Dell Precision™ 490 workstation, a productivity machine where lightning-fast Dual-Core Intel® Xeon® processors, impressive graphics, and exceptional memory capacity work together in a flexible and innovative compact chassis to deliver performance, scalability and reliability.

Big Performance. Small Footprint.

Looking for a high-end workstation that delivers groundbreaking performance and exceptional processing power to space-constrained environments? Then look no further. Developed in close collaboration with hardware and software partners, the next-generation Dell Precision 490 workstation combines a flexible, compact chassis and intelligent power management to deliver an ideal solution for financial trading floors, performance clusters, render farms and other crowded, power-sensitive environments. Optimized for performance, reliability and scalability in environments where space is at a premium, the Dell Precision 490 lets you power through complex tasks and complete your projects faster than the previous generation.

- New Dual-Core Intel Xeon processors deliver performance gains over the previous generations of up to 45% in single-threaded applications* and up to 155% on multithreaded applications*
- New memory architecture increases memory bandwidth by 500% to deliver no-compromise compute performance in a compact, rackable form factor
- Up to 32GB¹ quad channel DDR2 fully buffered DIMM ECC memory
- New SAS (Serial attached SCSI) hard disk storage delivers up to 50% higher performance than SATA 10K
- Innovative, new, dual-orientation chassis, with added slots for expandability

Visual Realism with High-Performance OpenGL Graphics

Dell Precision offers an intelligent selection of high-performance graphics cards that can satisfy a range of customer needs from unprecedented OpenGL 3D performance to dependable 2D performance with optional dual monitor capability.

Optimal Scalability in a Compact Chassis

With additional DIMM slots to expand memory capacity up to 32GB¹, and an innovative new chassis designed for flexibility, the Dell Precision 490 provides a highly scalable, cost-effective architecture with performance capabilities that can fundamentally change the way you work. If you're looking to optimize efficiency and power usage with a platform ready to scale to higher performing, lower wattage multi-core processors of the future, the Dell Precision 490 is the ultimate choice. And with ISV application certification, you can be sure your applications will run efficiently on Dell Precision workstations, today and tomorrow.

Peace of Mind Through ISV Application Certification

Dell partners with leading Independent Software Vendors (ISVs) to certify system and application compatibility to ensure 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 and 64-bit application development. By maintaining strong relationships with ISV application developers, Dell engineers can provide ongoing optimization and support, should you need it.



GET MORE PERFORMANCE AND FLEXIBILITY. GET MORE OUT OF NOW.



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SYSTEM

Processors	Up to two Dual-Core Intel® Xeon® 64-bit processors with up to 1066MHz front side bus and 2MB L2 cache per core, with XD, HT, VT and EIST; All Intel® Xeon® 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; Red Hat® Enterprise Linux WS v.4 (IA32); Red Hat Enterprise Linux WS v.4 (Intel EM64T)
Chipset	Intel® 5000X chipset
Memory	Up to 32GB ¹ quad-channel ² DDR2 Fully Buffered DIMM (FBD) 533MHz ECC memory; Eight DIMM slots
Flash BIOS	4MB 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; 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 250GB ³ ; SATA 3.0Gb/s 10K RPM with 16MB DataBurst Cache™ up to 500 GB ³ ; SATA 10K RPM with 8MB DataBurst Cache™ up to 160GB ³ ; SAS 10K RPM up to 300GB ³ ; SAS 15K RPM up to 146GB ³ ; Chassis supports up to three internal drives (1.5TB ³ storage maximum)
Hard drive controller	Integrated SATA 3.0Gb/s controller with support for RAID 0, 1, and 5; SAS RAID 0, 1 with optional SAS 5i/r PCI-E card; SAS RAID 0, 1, 5, 10 with optional PERC 5/i PCI-e card
Network controller	Integrated Broadcom® 5752 Gigabit ⁴ Ethernet controller
Audio controller	Integrated High Definition Audio (Rev 1.0 Specification) with Sigmatel STAC9200 High Definition Audio CODEC and Intel ESB2's AC97/ High Definition digital controller
Standard I/O ports	Eight USB 2.0: two on front panel, five on back panel, one internal on motherboard; Two serial; One parallel; Two PS/2; One RJ-45; Stereo line-in and headphone line-out on back panel; Microphone and headphone connector on front panel
Optional I/O	IEEE 1394a connector available on front panel with add-in card

CHASSIS

Dual-orientation desktop	Desktop orientation with feet: (WxHxD) 17.64" x 6.73" x 18.54" (maximum including badge); 44.8 cm x 17.1 cm x 47.1 cm (maximum including badge) Mini-Tower orientation with feet: (WxHxD) 6.73" x 17.64" x 18.54"; 17.1 cm x 44.8 cm x 47.1 cm (maximum including badge) Two internal 3.5" HDD bays; Two external 5.25" optical bays, one of which can accommodate a third HDD in mini-tower orientation. One external 3.5" flex bay for floppy or media card reader, one of which can accommodate a third HDD in desktop orientation; One PCI-e x16 graphics slot, Two PCI-e x8 slots wired as x4, Two PCI-X 64bit/100MHz slots with support for 3.3v or universal cards, One PCI 32bit/33Mhz slot; 750 watts Power Factor Correcting (PFC) power supply
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PERIPHERALS

Monitors	Performance flat panel displays, Dell UltraSharp™ widescreen and standard flat panel displays from 17" viewable to 24" viewable; Analog flat panel displays and CRT monitors also available
Keyboard	Dell Enhanced QuietKey USB; Enhanced Multimedia USB; Smart Card keyboard USB
Mouse	Dell USB two-button mouse and Dell USB optical two-button scroll mouse
Optional Speakers	Internal chassis speaker; Dell two and three piece stereo system; Dell sound bar available for all flat panel displays

STORAGE DEVICES

Optional Removable Storage	USB Floppy Drive; CD-ROM, CDRW ⁵ ; CD-RW/DVD Combo; DVD-ROM ⁵ ; DVD+/-RW ⁵ ; and USB media card reader and Dell USB Memory Key up to 512MB ⁶
Optional Modem	Dell 56K ⁷ v.92 Data/Fax PCI modem

SECURITY

Software	Trusted Platform Module 1.2 (TPM 1.2); Chassis intrusion switch; Setup/BIOS Password; I/O Interface Security
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ENVIRONMENTAL & REGULATORY

Standards	TCO99, Blue Angel, Green PC, Energy Star, BSMI, C-TICK, CE, FCC, IRAM, NEMKO, NFPA 99, SABBS, SASO, TCO, TUV, UL, VCCI, USB 2.0; WEEE
Lead Free	Environmentally conscious design is RoHS Compliant ¹⁰ /Lead Free ¹¹

SERVICE & SUPPORT

Base	3-Year Limited Warranty ⁸ with 3 years standard Next Business Day (NBD) onsite ⁹ parts replacement and 3 years NBD onsite ⁹ labor (US Only)
Recommended	3-Year Same Business Day 4 hour On-site Service ⁹ – 5 days a week, M-F 10 hours a day (8-6PM) 3-Year Same Business Day 4 hour On-site Service ⁹ – 7 days a week, 24 hours a day 3 & 4-year Gold Technical Support, expert support via phone, e-mail and online chat - 7 days a week, 24 hours a day

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/piracy/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. 1 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. To expand memory to more than 32GB requires a Dell Precision 490 1KW system with memory risers. 2 Quad-channel memory requires 4 each of the same capacity memory DIMMs. 3 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. 4 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. 5 Discs burned with this drive may not be compatible with some existing drives and players; using DVD+R media provides maximum compatibility. 6 For writeable storage devices, MB means 1 million bytes; total accessible capacity varies depending on operating environment. 7 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. 8 For a complete copy of our guarantees and limited warranties, please write Dell U.S.A. L.P., Attention: Warranties, One Dell Way, Round Rock, TX 78682. For more information, visit http://www.dell.com/us/en/gen/misc/policy_010_policy.htm. 9 Service may be provided by third-party. Technician will be dispatched if necessary following phone-based troubleshooting. Subject to parts availability, geographical restrictions and terms of service contract. Service timing dependent upon time of day call placed to Dell. U.S. only. 10 Meets the requirements of the EU Directive on the Restriction of the use of certain Hazardous Substances dated January 27, 2003. 11 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. Dell, the Dell logo, Dell Precision, OpenManage, and UltraSharp are trademarks of Dell Inc. Intel and Xeon are registered trademarks of Intel Corporation. Microsoft and Windows are registered trademarks or trademarks of Microsoft Corporation in the U.S. and other countries. Dell Inc. disclaims any proprietary interest in trademarks and trade names other than its own. © Copyright 2006 Dell Inc. All rights reserved. Legal ad# 69971813

*Dual-core performance gains (Woodcrest): 45% performance gain based on the SPEC CPU2000 (integer-speed base) benchmark test performed by Dell Labs in January 2006 on the Dell Precision 690 with two Intel Xeon 5150 2.66GHz processors with dual-core, 4MB L2 cache and 1333MHz FSB (No HT available), 8GB DDR2 533 ECC FBD memory, 160GB SATA 7200RPM HDD, Microsoft Windows XP Pro SP2 as compared to the Dell Precision 670 with two Intel Xeon 3.8GHz processors with 2x 2MB L2 cache & 800MHz FSB (HT off), 2GB DDR2 ECC memory, 160GB SATA 7200RPM HDD, Microsoft Windows XP Pro SP2. Actual performance will vary based on configuration, usage and manufacturing variability. 155% performance gain based on the SPEC CPU2000 (integer-speed base) benchmark test performed by Dell Labs in January 2006 on the Dell Precision 690 with two Intel Xeon 5150 2.66GHz processors with dual-core, 4MB L2 cache and 1333MHz FSB (No HT available), 8GB DDR2 533 ECC FBD memory, 160GB SATA 7200RPM HDD, Microsoft Windows XP Pro SP2 as compared to the Dell Precision 670 with two Intel Xeon 3.8GHz processors with 2x 2MB L2 cache and 800MHz FSB (HT off), 2GB DDR2 ECC memory, 160GB SATA 7200RPM HDD, Microsoft Windows XP Pro SP2. Actual performance will vary based on configuration, usage and manufacturing variability