Dell Precision™ Workstation 450

Performance-Optimized
Dual Processor Workstation
for Space-Constrained or Rackable Environments.

Dell Precision 450

The Performance You Need…

Business critical applications need the extra edge:
The Dell™ Precision Workstation 450 incorporates the latest technology advancements designed to deliver the maximum performance needed for your demanding applications, but in a chassis that is small enough to accommodate even the most challenging of work environments. Purchasing a Dell Precision workstation which is not only optimized for your high performance environments, but which is certified and optimized for your software applications, can help increase user productivity and allow for more time to increase the quality of the work. And for users in business-critical jobs, that performance edge can make the difference between making the trade or hitting the production deadline and not.

Latest Workstation Performance Architecture

The 450 includes support for the new Intel® Xeon™ processors which bring the benefit of 533MHz Front Side Bus (FSB) and a 512KB Level 2 cache technology. With the addition of Intel’s new core logic chip, the E7505, the Dell Precision 450 also delivers support for up to 4GB of dual-channel Double Data Rate memory, running at 266MHz. This balanced architecture helps eliminate the bottlenecks associated with slower, single-channel memory solutions that cannot harness the full power of the Xeon processor. The ability to transfer large amounts of data quickly is also of significant value to workstation users. To meet the needs of these bandwidth-hungry users, the 450 delivers Intel’s Gigabit networking technology, which greatly increases the speed at which they can transfer large files over a Gigabit network. Moreover, the 64-bit PCIx slot is perfectly suited for an add-in Gigabit Ethernet card for users in truly business-critical roles who need the speed and the fail-safe redundancy dual Gigabit can provide. The 64-bit PCIx slot can provide substantial performance enhancements for other add-in cards, such as the latest U320 SCSI and RAID adapters, which are used in a number of applications from digital content creation to complex financial modeling. The PCIx slot is even built on an independent bus from the other standard system I/O and 32-bit PCI slots to help deliver users maximum performance for their highest-end PCI cards.

... in a Compact, Flexible Chassis

While many users require the performance a Dell Precision workstation can deliver, they may also work in complex environments where space is a precious commodity. For users such as stock brokers working on a packed trading floor or video editors requiring high-density workstation clusters for complex video compositing, the Dell Precision 450 offers a small, rackable chassis to suit even the most challenging of dual-processing needs. At 3.8U (6.5”/165mm), the Dell Precision 450 is among the smallest (and quietest!) dual processing workstations available.

Workstation-Class Graphics and Audio

The Dell Precision 450 includes the latest generation of high-performance workstation-class AGP 8X Pro50 graphics cards, all of which support dual monitor configurations. The new 128MB ATI Fire GL X1 provides exceptional OpenGL 3D performance with unprecedented features. The nVidia Quadro4 mid-range card delivers an excellent price/performance solution for the demanding 3D user, while the new 64MB ATI Fire GL E1 delivers quality 3D performance at an entry-level price. Rounding out the 450 graphics offerings, the ATI’s 32MB Radeon VE is available for customers who desire a low-cost card that provides great 2D performance with optional dual monitor capability.

ISV Application Certification

Dell partners with leading workstation Independent Software Vendors (ISVs) to certify system and application compatibility, align product roadmaps to ensure future system requirements are met and to improve the customers’ experience. Precision’s ISV partners include: ADOBE – Premiere; ALIAS WAVEFRONT – Maya; ANSYS – Multiphysics, DesignSpace; AutoDesk – AutoCAD, Inventor; Discreet – 3ds max; AVID – Softimage XSI, Softimage 3D; Bentley – Microstation; Dassault – Catia V5; Enovia DMU, SolidWorks; EDS – Unigraphics, I-deas, Solid Edge; ESRI – Arc/INF, Arc/View; FLUENT; LANDMARK GRAPHICS; MSC – Nastran, Patran; Newtek – Lightwave; PTC – Pro/Engineer Wildfire; Mechanica.

Scalable Design

The Dell Precision 450’s scalable architecture allows the user to configure the machine to best meet their specific workstation requirements. From a minimum single processor solution with ISV certifications to a dual processor performance powerhouse configured for the most demanding applications, the Dell Precision 450 can easily scale to your unique workstation needs. In addition to the ability to select from multiple graphics options, the 450 supports high-performance PCIx cards and up to three hard drives to tackle even the most demanding storage requirements. The 450 also supports numerous removable storage options, from the versatile DVD+RW drive to standard Zip 250 devices.

Rich and Reliable Manageability Features

Dell follows open industry standards for system management and network administration, like ASF, WIM and CIM, to help ensure that your new system integrates seamlessly with other open industry-standard systems on your existing network. The Dell OpenManage™ suite of products delivers software and hardware management features designed to help lower your TCO and keep your workforce productive and current by enabling mass system updates, providing system alerts and allowing for after-hours software updates/imaging.

3 Years’ Service

Award-winning service and support with a dedicated workstation phone queue and 3-year Next Business Day On-site service.

Visit www.euro.dell.com for more information.
Processor ........................................... Intel® Xeon™ processor with 533MHz front side bus and 512KB L2 cache
Chipset ............................................. Intel E7501 chipset
Memory ............................................. 256MB non-ECC 266MHz DDR memory standard; 4 DIMM slots – 6GB maximum; 128MB DIMM (non-ECC or ECC), 256MB DIMM (non-ECC or ECC), 512MB DIMM (non-ECC or ECC), 1GB DIMM (non-ECC only)
Flash BIOS ........................................... 4MB flash memory for system BIOS, setup, Plug-and-Play DMI 2.0 (optional) and SMBIOS 2.3.1 support
Graphics Support .............................. ATI Radeon VE 2MB, AGP 4X, available in Dual VGA and Dual DVI configurations
ATI FireGL E1 64MB, AGP 4X, Dual Monitor (VGA and DVI or two VESA nVIDIA Quadro4, 900XGL AGP 4X, 128MB, Dual Monitor (VGA and/or DVI)
ATI Fire GL X1, AGP 8X, 128MB, Dual Monitor (VGA and/or DVI)
Hard Drives* ........................................ Enhanced IDE 3.5" M.A.R.T. II ATA/100, 7,200 RPM 26GB, 40GB, 60GB, 120GB (includes IBM DataBurst Cache)
Hard Drive Controller ......................... Integrated dual channel/connector, bus mastering ATA/100
Optional Ultra 320 SCSI PCI Controller
Network Controller ............................ PCIe 64-bit Intel 10/100/1000 Gigabit Ethernet
Audio Controller .................................. Integrated Analog Devices AC’97 Audio
Optional Sound Blaster audio card
Standard I/O Ports ............................... USB 2.0 (4), serial (2), parallel (2), keyboard, PS/2 mouse, RJ-45, 1.44MB floppy, stereo line-in (minijack), microphone-out (minijack), speakers-line-out (minijack) and headphone (minijack – front)
Optional I/O Ports ............................... IEEE-1394 PCI Controller (3 port)
Multiple Orientation Desktop ................. Desktop mode: 6.5’’ 6.6’’ H x 17.5’’ W x 18.0’’ D (165mm-168mm H x 445mm W x 457mm D)
Two internal 3.5’’ drive bays, two external 5.25’’ drive bays, one external 3.5’’ floppy bay, one AGP 4X Pro50 slot, two PCI 2.2 slots (3V, 32 bit) – one PCI slot (62-bit/100MHz). At 4.2’’ x 11’’ PCI and one at 4.2’’ x 9’’, 250 watts Power Factor Correcting (PFC) power supply
Performance Monitors ........................ Dell P130 21’’ (19.8’’ viewable) Flat Display UltraScan Display Monitor
Dell P920 19’’ (17.6’’ viewable) Flat Display UltraScan Flat Monitor
Keyboard (105 Keys) ............................ Dell PS/2 Entry Quiet Key; Dell USB Hot Key Programmable Keyboard; Dell Smart Card Reader Keyboard
Mouse ............................................. Dell PS/2 2-button mouse; Microsoft® IntelliMouse® PS/2 2-button scroll mouse; Logitech USB Optical 2-button scroll mouse
speakers ......................................... harman/kardon® HK 206 external speakers harman/kardon HK 396 external speakers
Optical 2-button scroll mouse
Optional Removable Storage .................. 1.44MB FDD; CD-ROM; CD-RW; DVD-ROM; CD-R/RW/DVD-Rom Combo drive; DVD+RW; 250MB Zip Drive
Modem ............................................. V.90, PCI ID internal controller-less Data/Fax modem
Operating Systems ......................... Microsoft Windows® XP Professional; Microsoft Windows 2000 Professional; Red Hat® Linux® Office Application Suites .......... Microsoft Office XP SP; Microsoft Office XP Pro; Microsoft Office XP Standard Management Tools ....... Dell OpenManage™ IT Assistant, LegacySelect (control of I/O ports), OpenManage Client Instrumentation Standard Manageability Features ........ Desktop Management Interface (DMI) 2.0, CMI, WBM, Wired for Management (WMI) 2.0, PXE, SMS, SNMP, SM BIOS 2.1.1, Advanced Control, Power Interface 1.0 (ACPI), DDC2b and Diagnostic LEDs: Four yellow and/or green LEDs on back of system
Key Support Features ......................... S3/4 sleep state support, Remote System Alerts, Remote BIOS flash, Remote BIOS configuration, Remote Wake-up capabilities, DIMM information export to SMS, DIMM Pre-Failure Alert, Asset Tag, Property Ownership Tag, Chassis Intrusion Alert, DIMM Configuration Change Alert, Enhanced S.M.A.R.T. II HDD Alerts
Standard ....................................... TC599, Blue Angel, Energy Star BSM capable, C-TEC, CE, FCC, IRAM, NEMKO, NIPA 99, SABS, SASO, TCO, TUV, UL, VCCI
Optional ........................................... 3-Year Same-day 4-hour Response Service, 5 days x 10 hours a day 3-Year Same-day 4-hour Response Service, 7 days x 24 hours a day

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Dell recommends Microsoft® Windows® XP Professional for Business

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1. Desktop systems use a 32-bit PCI interface, which limits Gigabit performance to about 500 Megabits per second. Servers and high end workstation systems (such as the Dell Precision 530) with 64-bit PCI interface can achieve speeds exceeding 1GB Megabits per second. The performance indicated is obtained using the Hardware O/D for Gigabit Ethernet server and network infrastructure is required. 2. Distractions with this drive may not be compatible with some existing drives and players; using DVD+R media provides maximum compatibility. 4. Service may be provided by third-party. 5. For hard drives, GB means 1 billion bytes; total accessible capacity server and network infrastructure is required. 6. Updated speeds are limited to 533ops. Download speeds are limited to 1536kops. For high speed transmissions, connection to a Gigabit Ethernet server and network infrastructure is required.