



hp workstation zx2000



data sheet

powerful, economical, visionary

The HP Workstation zx2000 is your chance to ride the accelerated performance curve with what may be the most flexible workstation ever created.

No other workstation can support your choice from three major operating systems, all available with a full range of graphics. It can act as a powerful desktide workstation or run large datasets racked as a graphical compute node. It is priced similarly to a performance IA-32 workstation but has all the advantages of a 64-bit workstation, plus the benefits of the next generation Intel® Itanium® 2 microarchitecture, including wide parallelism and astounding floating point performance. It also supports your choice of Ultra SCSI and Ultra ATA hard disks.

This workstation is built around a powerful 900MHz Intel Itanium 2 processor, enabled by our custom-built HP zx1 Chipset. This combination gives it amazing price performance. It is a great solution for Computer Aided Engineering, Life Sciences visualization, scientific and research codes, software development, Digital Content Creation, and Mechanical Computer Aided Design.

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feature	benefit	advantage
single 900MHz Intel Itanium 2 processor with 1.5MB on-chip L3 cache	the latest 64-bit architecture from Intel can execute multiple instructions in parallel; has leading floating point throughput, and has fast low-latency cache to ensure data availability when required by the processor	excellent uniprocessor performance, particularly in floating point intensive applications, ensuring faster time-to-market
HP zx1 Chipset offers 6.4GB/sec of system bus bandwidth; 78ns open page memory latency; and AGP graphics	able to meet the data demands of a high performance parallel processor without being a bottleneck; high bandwidth, low latency data transfer; and professional, fast graphics	Ultra ATA/100 IDE drives for up to 160GB as maximum storage; 10k rpm Ultra160 SCSI drives for up to 146GB; 15k rpm Ultra160 SCSI drives for up to 72GB
able to address up to 4GB of DDR SDRAM today, 8GB when 2GB DIMMs become available	can run very large sets in memory—up to 6GB more than is possible with a 32-bit architecture running Microsoft Windows; DDR gives excellent price performance	ability to run the largest sets transcends the boundaries of 32-bits; the system is priced extremely economically without making a compromise on speed and throughput
supports three operating systems: <ul style="list-style-type: none">• HP-UX 11i v1.6• Microsoft® Windows®• 64-bit Linux®	unconstrained choice of operating environment, you pick what best suits your needs; allows you the ability to repurpose your workstation's role over time	a change in OS no longer requires a change in hardware; you have the additional flexibility to task your workstation according to your specific needs
very flexible mass storage options	Ultra ATA/100 IDE drives for up to 160GB as maximum storage; 10k rpm Ultra160 SCSI drives for up to 146GB; 15k rpm Ultra160 SCSI drives for up to 72GB	provides the widest range of hard disk space and performance with no need to compromise in your choices
compatibility with 32-bit and 64-bit HP-UX 11 & 11i binaries, 32 and 64-bit Microsoft Windows binaries; and 32-bit and 64-bit Linux binaries	your 32-bit Windows applications will run unchanged and with better performance than on the previous generation of the Intel Itanium processor, as will your HP-UX binaries, and any Intel Itanium processor applications available today on any OS	the widest ranging backwards compatibility in the industry allows you to run today's applications unchanged while you take advantage of the performance offered by applications natively ported to the Intel Itanium 2 processor
tower or rack configuration	designed with both needs in mind, you can rack it as a uniprocessor 4U system and then later repurpose it as a vertical tower workstation	the HP Workstation zx2000 is versatile, first in the rack and then on the desktide
full set of graphics from entry-level 2D to high-end 3D across all three operating systems	leading edge, fully supported graphics cards from ATI and NVIDIA are available for 2D and 3D work	over 20 years of HP's graphics experience are leveraged to bring you the most flexible graphics story ever on a single workstation

hp workstation zx2000 technical specifications

central processor

type	Intel Itanium 2 processor
clock frequency	900MHz
number of processors	1
system bus bandwidth	6.4GB/sec

cache (on-chip)

L1: 16KB instruction 16KB data
L2: 256KB
L3: 1.5MB

performance

Itanium-based workstation performance results can be found at:
www.hp.com/go/itaniumperformance

main memory & chipset

memory bandwidth	4.3GB/sec
RAM type	PC2100 ECC DDR 266
capacity	expandable to 4GB*
memory slots	4 DIMMs
open page memory system latency	78ns
aggregate I/O bandwidth	2.8GB/sec
graphics bandwidth	1.0GB/sec

* 8GB when 2GB DIMMs become available

operating systems supported

HP-UX 11i v1.6
Microsoft Windows 64-bit
64-bit Linux

internal storage devices (2 storage bays)

integrated Ultra ATA/100 controller	
Ultra ATA/100 IDE hard drives	40GB (7200 rpm)
up to 2 devices, 160GB maximum	80GB (7200 rpm)

requires optional controller

Ultra160 SCSI hard drives	36GB (10k rpm)
up to 2 devices 146GB maximum	73GB (10k rpm)
up to 2 devices 72GB maximum	36GB (15k rpm)

expansion slots

AGP 4X Pro 50 (1 slot)	32-bit 66MHz 1.5V 1.06GB/sec*
PCI-X (1 half length, 3 full length slots)	64-bit 66MHz 532MB/sec
PCI-X (full length, 1 slot)	64-bit 133MHz 1.06GB/sec*

* slot is on an independent bus, bandwidth is not shared

removable media

IDE optical drives/up to 2 devices	DVD-ROM CD-RW DVD+RW*
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*available 4Q02

networking (integrated, supported on Windows & Linux only*)

Intel 82540EM (Kenai32) Wake-on-LAN	
LAN data rate	10/100/1000Mbps

* a LAN card must be purchased with HP-UX

IEEE-1394 (Optional)

IEEE-1394A, OHCI	3 ports (2 rear, 1 internal)
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built-in I/O

serial interface, DB9P	2 ports
USB 2.0, style A (USB 1.1 compatible)	4 ports (2 front, 2 rear)

power

power supply output	450W
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audio (integrated)

type	16-bit stereo full-duplex
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remote management features

baseboard management controller (integrated)
Power & reset management, health management, event logging
& reporting, hardware & data protection, always available
management console

monitors

18" flat panel LCD
19" flat screen CRT
21" flat screen CRT
24" flat screen CRT

environmental specifications

altitude	
operating	3000 m (10000 ft) max
storage	4600 m (15000 ft) max
temperature	
operating	+05°C to +35°C (+41°F to +95°F)
non-operating	-40°C to +70°C (-40°F to +158°F)
humidity	
operating	15% to 80% (relative)

physical dimensions, tower configuration

height	50.3 cm (19.8 in)
width	26.4 cm (10.4 in)
depth	50.5 cm (19.9 in)

physical dimensions, rack configuration (4U)

height	17.5 cm (6.9 in)
width	48.3 cm (19.0 in)
depth	50.5 cm (19.9 in)

net weight

minimum tower configuration	22.0 kg (48.4 lb)
maximum tower configuration	24.8 kg (54.7 lb)
minimum rack configuration	17.8 kg (39.2 lb)
maximum rack configuration	20.6 kg (45.4 lb)

power requirements

input current	100-127V~ 6.4A/200-240V~ 3.2A (autoranging)
line frequency	50Hz to 60Hz
maximum power input	640W

professional 3D graphics (AGP)

extreme 3D ATI Fire GL4™	hp-ux IBM® raster and geometry engines 128MB unified graphics memory
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NVIDIA® Quadro™4 900 XGL*	Windows, Linux NV25GL graphics processing unit 128MB unified graphics memory
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mid-range 3D ATI Fire GL™ 8800*	Windows, Linux ATI R200 graphics controller 128MB unified graphics memory
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entry 3D NVIDIA Quadro2 EX*	Windows, Linux single, integrated geometry engine 32MB unified SDR graphics memory
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professional 2D graphics (AGP)

ATI RADEON™ 7000**	hp-ux, Windows, Linux RADEON 7000 graphics controller 32MB DDR SDRAM memory
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www.hp.com/workstations/programs/leadership_graphics/index.html

* 64-bit Windows and Linux availability set by OS release schedule

** currently available on HP-UX; 64-bit Windows and Linux availability set by OS release schedule

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