



**hp workstation
x4000
with Linux**



data sheet

hp delivers dual processor capable Linux...ready to use right out of the box

The HP workstation x4000 with Linux[®] was designed with the demanding DCC, EDA or CAE technical user in mind. Configurable to meet present and future needs, the HP x4000 with Linux offers optional dual processing, the latest Intel[®] 860 chipset with 400MHz front side bus, up to 4GB of memory and preloaded, preconfigured and fully supported Red Hat[®] Linux 7.1.

With more than 15 years of UNIX[®] workstation experience, HP has a unique understanding of technical computing needs. With the HP workstation x4000, HP has integrated that understanding into our product solution infusing HP quality into the Linux domain.

**hp workstation x4000
with Linux**

	feature	benefit	advantage
	preloaded, preconfigured and certified	hp workstation x4000 with Linux is pretested as an integrated workstation	delivers a ready-to-use, high performance, quality Linux solution backed with full hp support
	1 or 2 Intel Xeon [™] 1.5, 1.7 or 2GHz processor	dual processor capable; next generation processor with Intel NetBurst [™] micro-architecture puts increased power and efficiency behind demanding applications	higher frequencies and improved processor design provide increased floating point performance and compute power
	hp quality infused into XFree86 [™]	hp collaboration with key customers results in real-world, hp certified solutions	unique color calibration extensions allows users to define a color-calibrated color table to X Server; hp quality "stamp of approval" ensures customer confidence
	up to 4GB capacity RDRAM [®]	large memory capacity for more demanding applications and complex designs.	more design options; increased interactivity for faster insight; applications and workloads demanding large memory get a boost in performance
	diag LEDs/e-diag tools	provides unique local net-based management and diagnostics; configurable to browse for BIOS or firmware	allows advanced administration and management of system components and settings; increases reliability and provides hardware self-diagnosis
leadership graphics	hp leadership graphics program	a wider range of graphics choices for applications that are fully supported on the platform	faster access to the best graphics in the industry at varying performance and price points; backed by more than 20 years of HP graphics expertise
extreme 3D	ATI [™] FireGL [™] 4	highly tuned, full-featured graphics engines; 128MB of memory	provides the industry's fastest 3D performance with dual display; ideal for use with the largest models
high-end 3D	ATI FireGL 2	full-featured industry leading geometry and rendering engines	provides the ability to create complex and visually realistic objects at interactive speeds
mid-range 3D	NVIDIA [®] Quadro2 Pro [™]	second generation NVIDIA geometry engine with 200MHz DDR memory; delivers excellent 2D and 3D graphics performance at a mid-range price point	provides excellent application performance and allows for interactive display of medium-sized to large-sized models
entry 3D	NVIDIA Quadro2 MXR [™]	dedicated hardware geometry engine and dual-display capability from a single card; delivers excellent 2D and 3D graphics performance at an entry price point	provides increased performance, greater visual realism, and allows users to add a digital display in addition to an analog display to double their display area
professional 2D graphics	Matrox [®] Millennium G450	delivers excellent 2D and dual-display graphics performance at an entry price point; 3D graphics are also supported	provides excellent application performance for dual-display applications using a second monitor

hp workstation x4000 with Linux technical specifications

central processor	
type	Intel Xeon
clock frequency	1.5, 1.7 or 2GHz
number of processors	1 or 2

cache (on-chip)	L1: 16KB code, 16KB data L2: 256KB
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main memory	
bus bandwidth	3.2GB/sec
RAM type	PC800 ECC RAMBUS®
capacity	3.5* 4GB*
memory slots	8 RIMMs (4 pairs, dual channel)

*available summer, 2001

operating system	
Red Hat Linux 7.1	hp supported

internal storage devices (2 storage bays)
dual channel U160 built into motherboard
Ultra 160 SCSI hard drives

Up to 2 devices, 146GB max*	18GB (10K rpm) 36GB (10K rpm) 36GB (15K rpm)* 73GB (10K rpm)*
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available summer, 2001

expansion slots	
PCI (full size - 5 slots available)	PCI 2.2 32b 33MHz (x3) PCI 2.2 64b 66MHz (x2)
AGP Pro 110 4x	110 watt limit

SCSI device connectivity
The integrated dual channel Ultra 160/m SCSI card has 2 connectors

connector 1	68-pin connector for 2 internal LVD SCSI devices
connector 2	68-pin connector for external LVD SCSI devices

removable media	
floppy drive	integrated 3.5" floppy drive
CD drive(s) up to 2 CD devices	48X CD-ROM 12X DVD* 12X/8X/32X CD-RW*

*additional application software needed for DVD multimedia and/or CD-RW capabilities

networking (integrated)	
RJ45	yes
LAN data rate	10/100Mbps

built-in I/O	
serial interface 9-pin DIN	2 ports
parallel interface 25-pin DIN	1 port
USB (Universal Serial Bus) Series A	2 ports

audio	
type	16-bit stereo full-duplex

monitors	18" Flat Panel LCD 19" Flat Screen 21" Flat Screen 24" Flat Screen
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environmental specifications	
altitude	
operating	3100m (10000 ft.) max
storage	4600m (15000 ft.) max

temperature	
operating	-5°C to +35°C (+23°F to +95°F)
non-operating	-40°C to +70°C (-40°F to +158°F)

humidity	
operating	15% to 80% (relative)

physical dimensions	
height	49cm (19.30 in)
width	21cm (8.26 in)
depth	47cm (18.50 in)

net weight	
minimum configuration	18.21Kg (40.2lbs)

power requirements	
input current	5.0 A @ 100V Vac
line frequency	50Hz to 60Hz
maximum power input	500W

professional 3D graphics	
extreme 3D	
ATI Fire GL4	IBM® raster and geometry engines 128MB unified graphics memory

high-end 3D	
ATI Fire GL2	IBM GT1000 geometry engine 64MB unified graphics memory

mid-range 3D	
NVIDIA Quadro2 Pro	Single, integrated geometry engine 64MB unified DDR graphics memory

entry3D	
NVIDIA Quadro2 MXR	Single, integrated geometry engine 32MB unified SDR graphics memory

professional 2D graphics	
Matrox Millennium G450	16MB DDR graphics memory

www.hp.com/workstations/programs/leadership_graphics/index.html

keyboard	
PS/2 keyboard with Windows StartKey (104-105 keys)	
plugs to connect headset and microphone directly to keyboard	
additional configurable hot keys	

mouse	
PS/2 3-button mouse (no scroll)	
or	

Invent the future with the HP workstation x4000 with Linux.

The latest information about HP workstations, including Linux, UNIX and Windows® systems, is available at:
www.hp.com/workstations

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