Dell™ PowerEdge™
*SC*1430 Systems

Getting Started With Your System

Notes, Notices, and Cautions

NOTE: A NOTE indicates important information that helps you make better use of your computer.

NOTICE: A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

⚠ **CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.**

System Features

The major hardware and software features of your system include:

- One or two Dual-Core Intel® Xeon® Processors 5000 Sequence

- Support for symmetric multiprocessing (SMP), which is available on systems with two Intel Xeon microprocessors. SMP greatly improves overall system performance by dividing microprocessor operations between independent microprocessors. To take advantage of this feature, you must use an operating system that supports multiprocessing.

  NOTE: If you decide to upgrade your system by installing a second microprocessor, you must order the microprocessor upgrade kits from Dell. Not all versions of the Intel Xeon microprocessor will work properly as additional microprocessors. The upgrade kit from Dell contains the correct version of the microprocessor. Both microprocessors must have the same internal operating frequency and cache size.

- A minimum of 512 MB of 533 or 667 (when available) MHz Fully Buffered DIMMs (FBD), upgradable to a maximum of 8 GB by installing combinations of 256-MB, 512-MB, 1-GB, or 2-GB memory modules in the four memory module sockets on the system board

- Support for up to two 3.5-inch internal Serial-Attached SCSI (SAS) or SATA hard drives using the internal hard drive bays. A third hard drive may be installed in the flex bay. A fourth hard drive may be installed using a hard drive carrier. A controller expansion card is required for SAS hard drives or for more than two SATA hard drives.

- One 3.5-inch flex bay for a diskette drive or a third hard drive and two 5.25-inch bays for the following supported drives: CD, DVD, combination CD-RW/DVD, tape backup device (second bay only), or fourth hard drive (second bay only, hard drive carrier required)

  NOTE: DVD devices are data only.

  NOTE: A tape backup device or a second optical drive may not be installed if a fourth hard drive is installed.

- Support for USB 2.0

- Chassis intrusion alert

The system board includes the following built-in features:

- Dual-channel IDE controller that supports up to two of the following supported IDE devices: CD, DVD, combination CD-RW/DVD, or tape backup device

- SATA controller that supports up to two cabled SATA hard drives, and up to two of the following supported SATA devices (when available): CD, DVD, combination CD-RW/DVD, or tape backup device

- Two 64-bit, 100-MHz PCI-X expansion slots, two x8 lane (electrically wired for x4 lanes) PCI Express (PCIe) expansion slots, and one 32-bit, 33-MHz legacy PCI expansion slot

- An integrated VGA-compatible video subsystem with an ATI ES1000, 33-MHz PCI video controller. This video subsystem contains a minimum of 16MB of graphics memory with support for 2D graphics. Maximum resolution is 1600x1200 with 65,536 colors; true-color graphics are supported in the following resolutions: 640 x 480, 800 x 600, 1024 x 768, 1280 x 1024

- An integrated Gigabit Ethernet NIC, capable of supporting 1000-Mbps, 100-Mbps, or 10-Mbps data rates, with support for PXE and Wake-on-LAN

- Seven USB 2.0-compliant connectors (two on the front and five on the back) capable of supporting a diskette drive, a CD-ROM drive, a keyboard, a mouse, or a USB flash drive

- Back-panel connectors include serial, video, parallel, five USB connectors, and one NIC connector

- Front-panel connectors include two USB connectors

- Four front-panel system diagnostic LEDs for pre-POST and POST failure messaging and notification.

For more information about specific features, see "Technical Specifications" on page 7.

Supported Operating Systems

Your system supports the following operating systems:

- Microsoft® Windows Server™ 2003, Standard Edition
- Microsoft Windows Server 2003, Standard x64 Edition
- Microsoft Windows® Small Business Server 2003 Standard and Premium Editions
- Red Hat® Enterprise Linux (version 4) for Intel Extended Memory 64 Technology (Intel EM64T)
- SUSE® LINUX Enterprise Server 9

Other Information You May Need

⚠ **CAUTION: The *Product Information Guide* provides important safety and regulatory information. Warranty information may be included within this document or as a separate document.**

- The *Hardware Owner's Manual* provides information about system features and describes how to troubleshoot the system and install or replace system components.

- CDs included with your system provide documentation and tools for configuring and managing your system.

- Updates are sometimes included with the system to describe changes to the system, software, and/or documentation.

    📝 **NOTE:** Always check for updates on **support.dell.com** and read the updates first because they often supersede information in other documents.

- Release notes or readme files may be included to provide last-minute updates to the system or documentation or advanced technical reference material intended for experienced users or technicians.

Obtaining Technical Assistance

If you do not understand a procedure in this guide or if the system does not perform as expected, see your *Hardware Owner's Manual*.

Dell Enterprise Training and Certification is available; see **www.dell.com/training** for more information. This service may not be offered in all locations.

Installation and Configuration

⚠ **CAUTION: Before performing the following procedure, read and follow the safety instructions and important regulatory information in your *Product Information Guide*.**
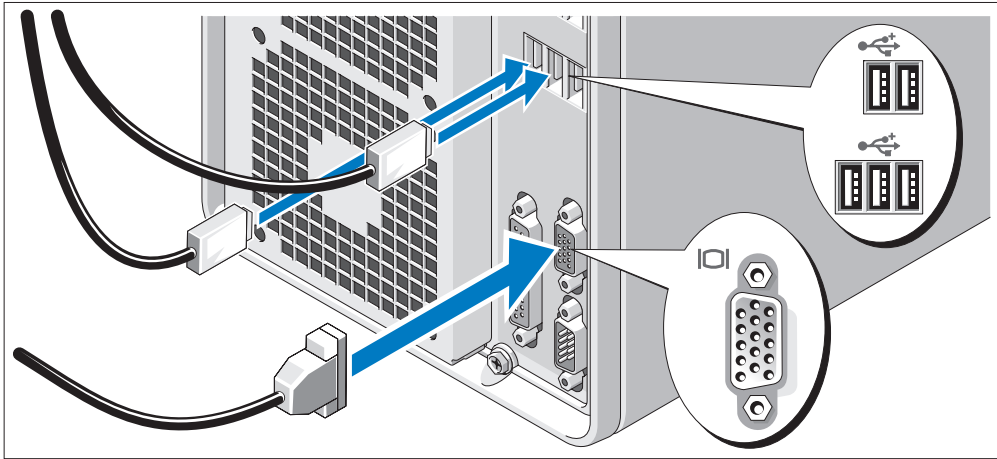
This section describes the steps to set up your system for the first time.

Unpacking the System
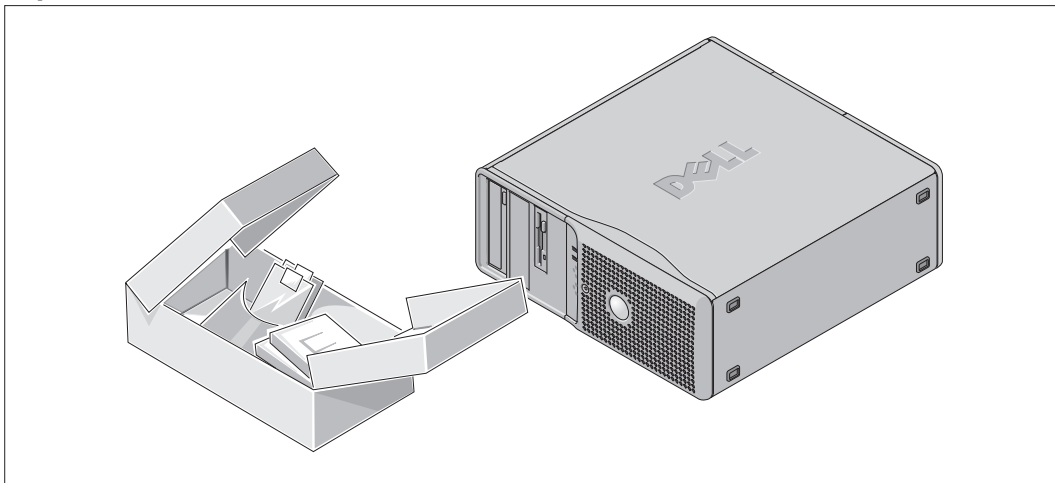
1 Unpack your system and identify each item.

Keep all shipping materials in case you need them later.

Connecting the Keyboard, Mouse, and Monitor

2 Connect the keyboard, mouse, and monitor (optional).

The connectors on the back of your system have icons indicating which cable to plug into each connector.

Be sure to tighten the screws (if any) on the monitor's cable connector.

Connecting the Power
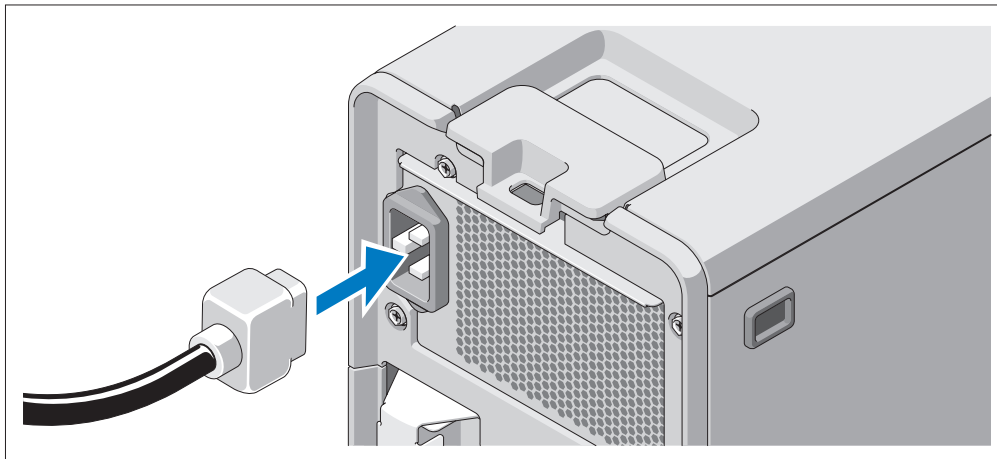
3 Connect the monitor power cable to the monitor (optional), and connect the system's power cable to the system.

4 Plug the other end of the power cables into a grounded electrical outlet or a separate power source such as an uninterrupted power supply (UPS) or a power distribution unit (PDU).

Turning on the System

5 Turn on the system and monitor (optional).

Press the power button on the system and the monitor. The power indicators should light.
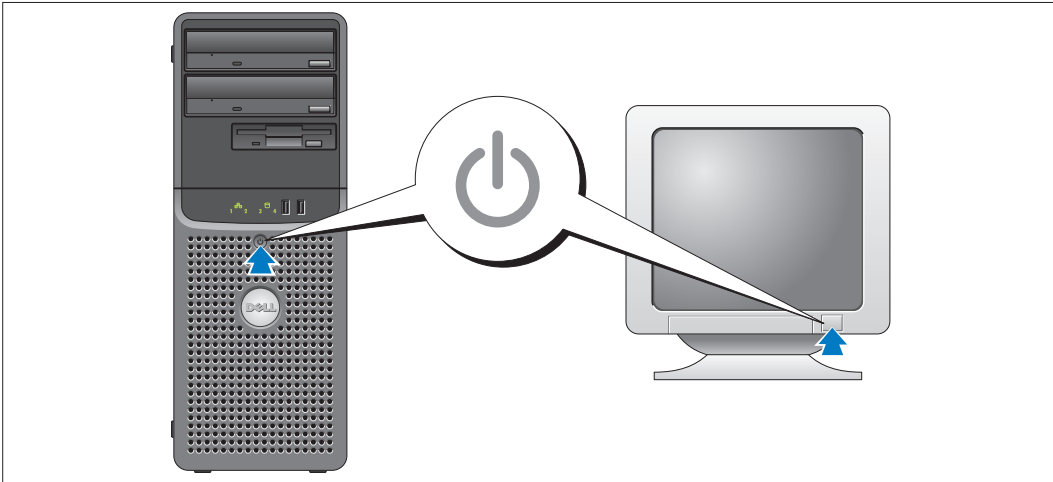Adjust the monitor's controls until the displayed image is satisfactory.

Complete the Operating System Setup

If you purchased a preinstalled operating system, see the operating system documentation that ships
with your system. To install an operating system for the first time, see the *Quick Installation Guide*.
Be sure the operating system is installed before installing hardware or software not purchased with
the system.

Technical Specifications

Processor	
Processor type	one or two Dual-Core Intel Xeon Processors 5000 Sequence

Expansion Bus	
Bus type	PCIe, PCI-X, PCI
Expansion slots	
PCIe	one half-length, full-height, x4 lane-width, x8 connector, 3.3-V (slot 1)
	one full-length, full-height, x4 lane-width, x8 connector, 3.3-V (slot 3)
PCI-X	one full-length, full-height, 3.3-V, 64-bit, 100MHz (slot 5)
	one half-length, full-height, 3.3-V, 64-bit, 100MHz (slot 6)
PCI	one full-length, full-height, 5-V, 32-bit, 33-MHz legacy (slot 4)

Memory	
Architecture	533 or 667 (when available) MHz Fully Buffered DIMMs (FBD)
Memory module sockets	four 240-pin
Memory module capacities	256 MB, 512 MB, 1 GB, or 2 GB
Minimum RAM	512 MB (two 256-MB modules)
Maximum RAM	8 GB (four 2-GB modules)

Drives

Hard Drives	up to four 3.5-inch internal SAS or SATA drives using one of the following configurations:
	– one or two SATA drives using internal hard drive bays and integrated controller
	– one or two SAS drives using internal hard drive bays and controller expansion card
	– three SAS or SATA drives using internal hard drive bays, flex bay, and controller expansion card
	– four SAS or SATA drives using internal hard drive bays, flex bay, hard drive carrier, and controller expansion card
	NOTE: Your hard drive configuration must consist of all SATA hard drives or all SAS hard drives.
	NOTE: If you decide to install a third hard drive in the flex bay, you may not install an internal diskette drive.
	NOTE: If you decide to install a fourth hard drive, see the Dell Support website at **support.dell.com** for information on hard drive cooling requirements.
Diskette drive	one optional 3.5-inch, 1.44-MB external optional USB 3.5-inch, 1.44-MB
Optical drives	up to two optional IDE CD, DVD, or combination CD-RW/DVD drives (SATA drives when available) **NOTE:** DVD devices are data only. **NOTE:** A second optical drive may not be installed if a fourth hard drive is installed. external optional USB CD
Tape drive	one optional internal half-height, 5.25-inch SCSI or IDE (for use in second 5.25-inch bay only) (SATA drive when available) **NOTE:** A tape backup drive may not be installed if a fourth hard drive is installed.
Flash drive	external optional USB

Connectors

Back	
NIC	one RJ-45 (for integrated 1-Gigabit NIC)
Serial	9-pin, DTE, 16550-compatible
USB	five 4-pin, USB 2.0-compliant
Video	15-pin VGA
Parallel	25 pin
Front	
USB	two 4-pin, USB 2.0-compliant

Video

Video type	ATI ES1000 video controller; VGA connector
Video memory	16 MB

Power

AC power supply (per power supply)	
Wattage	750 W
Voltage	auto-sensing power supply—90 V to 265 V at 50/60 Hz
Heat dissipation	1150 BTU/Hour
CMOS Backup Battery	CR 2032 3.0-V lithium ion coin cell

Physical

Height	44.68 cm (17.59 in)
Width	16.99 cm (6.69 in)
Depth	46.84 cm (18.44 in)
Weight (maximum configuration)	19.5 kg (43 lb)

Environmental

NOTE: For additional information about environmental measurements for specific system configurations, see www.dell.com/environmental_datasheets.

Temperature

Operating	10° to 35°C (50° to 95°F)
Storage	–40° to 65°C (–40° to 149°F)

Relative humidity

Operating	8% to 85% (noncondensing) with a maximum humidity gradation of 10% per hour
Storage	5% to 95% (noncondensing)

Maximum vibration

Operating	5 to 350 Hz at 0.0002 G2/Hz
Storage	5 to 500 Hz at 0.001 to 0.01 G2/Hz

Maximum shock

Operating	40 G +/- 5% with pulse duration of 2 msec +/- 10% (equivalent to 20 in/sec [51 cm/sec])
Storage	105 G +/- 5% with pulse duration of 2 msec +/- 10% (equivalent to 50 in/sec [127 cm/sec])

Altitude

Operating	–15.2 to 3048 m (–50 to 10,000 ft)
Storage	–15.2 to 10,600 m (–50 to 35,000 ft)