

*Powerful 4-way 64-bit SMP design and  
analysis workstation*



## IBM RS/6000 44P Model 270 Workstation

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### Highlights

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**Outstanding value in a symmetric multiprocessor (SMP) workstation with up to four processors**

**Up to 16GB of memory for the performance and capacity to tackle memory- and compute-intensive analysis tasks**

**Support for the GXT2000P, GXT3000P, GXT4000P and GXT6000P graphics accelerators**

**Excellent performance for 3D CAD/CAM and visualization applications**

**Up to 8MB of L2 cache for enhanced performance on large models**

**Powerful analysis workstation for complex computational chemistry, structural analysis and computational fluid dynamics applications**

**Enhanced performance with state-of-the-art IBM POWER3-II copper microprocessors**

**Built-in service processor for enhanced availability/reliability**

**Powered by the award-winning IBM AIX®**

### More for your money

The RS/6000® 44P Model 270 workstation lowers the cost of a high-end design and analysis solution while significantly raising levels of performance. It is ideal for complex mechanical computer analysis and design, mechanical computer aided engineering and geophysical visualization. It is also an excellent development and testing platform for 64-bit SMP applications.



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<b>Feature</b>	<b>Benefit</b>
<b>POWER3-II processor/8MB L2 cache</b>	<ul style="list-style-type: none"> <li>• Provides greater processing speed and reliability through copper technology</li> <li>• Greatly enhances performance of floating-point applications</li> </ul>
<b>64-bit system architecture</b>	<ul style="list-style-type: none"> <li>• Improves physical memory use for applications requiring faster access to large amounts of data</li> </ul>
<b>Tightly coupled IBM graphics accelerator technology</b>	<ul style="list-style-type: none"> <li>• Enhances graphics performance for increased design productivity</li> <li>• Supports the GXT300P, GXT2000P, GXT3000P, GXT4000P, GXT6000P graphics accelerators</li> </ul>
<b>Concurrent 32-bit and 64-bit application support</b>	<ul style="list-style-type: none"> <li>• Allows migration to 64-bit applications at a company's own pace</li> </ul>
<b>Built-in service processor</b>	<ul style="list-style-type: none"> <li>• Designed to monitor system operations and take preventative or corrective action for quick problem resolution and high system availability</li> <li>• Allows diagnostics and maintenance to be performed remotely</li> </ul>
<b>High performance Ultra2 SCSI disk</b>	<ul style="list-style-type: none"> <li>• Provides data transfer rates of up to 80MB/sec</li> </ul>
<b>SSA RAID disk attachment</b>	<ul style="list-style-type: none"> <li>• Provides higher disk capacity with externally attached units</li> <li>• Provides bandwidth up to 160MB/sec</li> <li>• Helps improve data availability and device reliability</li> </ul>
<b>AIX operating system</b>	<ul style="list-style-type: none"> <li>• Supports concurrent execution of 32- and 64-bit applications on 64-bit RS/6000 systems in their full range of scalability</li> <li>• Provides an AIX binary compatibility environment that helps assure continuing application availability across AIX Version 4 releases</li> <li>• Maintains branded conformance to The Open Group's XPG4, UNIX® 95 and UNIX 98 specifications. Year 2000, Euro and Tivoli® ready</li> <li>• Offers vast portfolio of multiuser applications</li> </ul>

### **Supercharged application performance**

The Model 270 is designed for technical and graphics users who require high-performance and SMP capability. It incorporates state-of-the-art IBM copper chip technology. The 375 MHz POWER3-II processors offer a significant performance boost, with nearly three times improvement in floating-point performance compared to the RS/6000 43P Model 260!. Not only are the processors more powerful than the two-way Model 260, but twice as many processors are available.

The Model 270 can be expanded to a two-, three- or four-way SMP system, and upgrades can be accomplished simply by plugging in a new processor card. Available with a one-, two-, three- or four-way configuration is 4MB of Level 2 (L2) cache. A two- or four-way system may also be configured with 8MB of L2 cache. To assure balanced system performance, 8MB and 4MB L2 cache processor cards may not be mixed in a system.

With multiple POWER3-II processors, up to 8MB of L2 cache and up to 16GB of memory, the Model 270 is an excellent choice for running MCAD design and analysis applications such as the entire CATIA suite as well as Pro/ENGINEER 2000*i* and Deneb. The Model 270 brings new levels of performance to CAE applications from companies such as Ansys, HKS, MSC.Software, AVL, CD/adapco, Fluent, ESI, LSTC and Mecalog. In EDA, applications from Avant!, Cadance, FTL Systems and Synopsys take advantage of the large memory and exceptional compute power of the Model 270.

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**RS/6000 44P Model 270 at a glance**

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**Minimum configuration**

Microprocessor:	375 MHz POWER3-II with 4MB L2 cache
Level 1 (L1) cache:	64KB data/32KB instruction
RAM (memory):	256MB
Memory bus width:	128-bit
Internal disk drive:	9.1GB Ultra SCSI
Disk/media bays:	Five (two available)
Expansion slots:	Five PCI
PCI bus width:	32- and 64-bit
Standard features:	Integrated ports: Tablet, keyboard, mouse, Ethernet Thick and Twisted, internal Ultra SCSI, external Ultra2 SCSI, two serial, parallel and stereo audio CD-ROM drive, service processor, LED operator panel, 1.44MB 3.5-inch diskette drive

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**AIX operating system**Version 4.3.3 (unlimited user license)

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**System expansion**

Microprocessor:	375 MHz POWER3-II with 8MB L2 cache
Processors:	2-, 3-, or 4-way (4MB L2 cache) or 2- or 4-way (8MB L2 cache)
RAM:	Up to 16GB
Internal DASD:	Up to 109.2GB
External storage:	IBM 2104 Expandable Storage Plus, IBM 7133 Serial Disk System

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**Power requirements**Universal 110/220V power supply

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**System dimensions**23.6"H x 8.7"W x 28.1"D (600mm x 222mm x 713mm): 81lbs (37kg)

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**Warranty**On-site for one year (limited) at no additional cost

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In addition, the Model 270 can help companies manage the evolution of their workstation applications into 64-bit computing, while continuing to support existing 32-bit applications. The system can run 32- and 64-bit applications concurrently and most existing 32-bit applications can run unaltered, leveraging and protecting current information assets.

**Graphic advantages**

The Model 270 supports a wide variety of 2D and 3D graphics accelerators. The GXT300P offers affordable high-performance 16.7-million color (24-bit, double buffered) 2D for design and visualization applications and provides, via Softgraphics software, entry 3D support for CAD/CAM.

For high-performance 3D applications such as MCAD, MCAE and petroleum visualization, the GXT3000P or GXT6000P offer functionality and leading-edge performance in 3D texturing and lighting. Furthermore, the GXT2000P or GXT4000P offer more affordable high performance graphics accelerators. Providing a complete design solution, the Model 270 supports a full range of graphics input devices, including a Spaceball, Magellan controller and tablet.

### **There when you need it**

The Model 270 offers advanced reliability via a built-in service processor that is designed to continuously monitor operations. It also features error checking and correcting (ECC) memory that can detect and correct many errors. Also available are concurrent diagnostics that enable potential system malfunctions to be investigated without having to shut down the system.

The Model 270 with AIX 4.3 is an excellent choice for large, complex installations. It supports Web-based remote management tools that allow control or management of the system from any Java™ enabled browser. Included in the Model 270 is Tivoli Management Agent, which monitors key resources such as adapter and network availability, file system status and processor workload.

### **Packed with value**

The Model 270 workstation features a deskside design with excellent expansion capabilities. It offers five disk/media bays, permitting up to 109.2GB of internal disk storage, and products such as the IBM 2104 Expandable Storage Plus and the IBM 7133 Serial Disk System (SSA) provide even more large capacity, highly reliable and hot-swappable external storage. Integrated Ethernet, internal Ultra SCSI, external Ultra2 SCSI and tablet controllers leave all five PCI slots available for a company's use.

### **The AIX advantage**

The award-winning IBM UNIX operating system for Model 270 is AIX<sup>2</sup>. It provides real value in terms of reliability, availability and security. AIX is tuned to maximize graphics performance for the MCAD user and is widely recognized for providing state-of-the-art graphics performance solutions. Included with an AIX license is support for Java, OpenGL, graPHIGS and X-Windows.

### **For more information**

To learn more about the RS/6000 Model 270, contact your IBM marketing representative, IBM Business Partner, or visit the following Web sites:

- [ibm.com/servers/unix](http://ibm.com/servers/unix)
- [ibm.com/ibmlink](http://ibm.com/ibmlink)



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<sup>1</sup> Any performance estimates contained herein were determined in a controlled environment using development level systems. Actual results may vary.

<sup>2</sup> 1999-2000 Operating System Function Review, D. H. Brown Associates, Inc., March 2000