Electronic Design



IntelliStation





The silicon challenge

The question is no longer "How many gates can you fit on the head of a pin?" but "How fast can you get it to market and at what cost?" At the 50th anniversary of the transistor, EDA is a discipline in transition. Among the trends well underway is the migration from UNIX to the new industry standard epitomized by the IBM IntelliStation professional workstation. Powered by Intel's most advanced processors and running the software essential to your job-now optimized for Microsoft[®] Windows[®] NT—the IBM IntelliStation is the standards-based successor to proprietary platforms. The impressive integer performance, responsive graphics, generous expandability and seamless integration with current and evolving work environments equips you with a tool that is both an expression—and a conduit of elegant electronic design.

Achieve more—better and faster with the IBM IntelliStation

The IBM IntelliStation combines the most advanced Intel® Pentium® II processors with Microsoft Windows NT 4.0 for 32-bit speed and muscle. Like its UNIX peers,



IntelliStation

the IBM IntelliStation delivers a robust multitasking, multiprocessor design solution. Add to the bargain enhanced personal productivity, as well as more seats for your IT dollar, and you're ready to run your demanding EDA tools in harmony with everyday business applications. Command tasks with ease from the familiar Windows NT toolbar, switching on the fly from scripting to netlist verification to researching the Web for component specs or simulation models. Plug-and-go Ethernet 10/100 is standard, making the connection with UNIX environments a convenient cross-platform reality. For critical applications that have yet to migrate to Windows NT, the Hummingbird "Try-and-Buy" Software Suite is included for efficient UNIX emulation on your IntelliStation. From input to output, the IBM IntelliStation is the integrated solution for simplifying your increasingly complex world.

Application-focused performance

IBM has the precision tool you need to move your design through the development cycle in record time. The IBM IntelliStation burns through design iterations fueled by industrial-duty Intel Pentium II processors with MMX[™] technology. In single- or dual-processor configurations up to 400MHz,¹ these IBM dynamos offer multitasking performance rivaling—even surpassing—proprietary workstations. For marathon simulations, the IntelliStation is fortified with massive 100MHz SDRAM memory configurations expandable up to 1GB, available 10,000rpm hard drives and dual-channel Ultra Wide SCSI enabled with RAIDport for throughput up to 40MBps per channel. With balanced integration of these advanced standards-based technologies, the IBM IntelliStation sets the pace for technical application performance.

Application-focused graphics

To keep momentum flowing, IntelliStation offers leading graphics engines from 3Dlabs, Matrox and Intergraph for supercrisp screen response. For demanding EDA projects, the Matrox Millennium II adapter is the rock-steady reference, with high refresh rates and expansive resolutions up to 1920x1200 pixels in true color. Or choose the sterling performance of the Permedia 2 enhanced graphics accelerator. This hybrid 2D/3D screamer—based on 3Dlabs GLINT technology-offers advanced graphics features including OpenGL support, 100MHz SGRAM and 16-bit Z-buffering. Tapping into the dedicated Accelerated Graphics Port, the PERMEDIA 2 enhanced takes advantage of pipelined access to system memory for fast 2D and 3D response. Either way, the IBM IntelliStation's real-time graphics eliminate the wait and let you create.

Application certification

Your specialized applications—from schematics capture to auto-routing to simulation—are the ultimate test of the IntelliStation's award-winning design.² With ever-narrowing time-to-market windows, the criteria for your next workstation can be nothing less than potent performance, faultless reliability and worry-free software compatibilitythe very standards the IBM IntelliStation meets through certification by leading EDA software vendors. Their rigorous testing confirms the application-focused performance and compatibility of the IBM IntelliStation, as well as giving you the assurance of expert, coordinated support, encompassing both hardware and software issues. For the real-world challenge you face every day, IBM is ready to assist you with vast cross-platform experience, world-class service and a long tradition of collaboration with the electronics industry. Visit the IBM Web site for the current list of supported applications at www.ibm.com/pc/us/intellistation



Cadence: Allegro



Cadence: Spectra



Zuken-Redac matrix





Cadence: Concept



The IntelliStation advantage

IBM is committed to helping you deploy. manage and protect your workstation investment. For example, IBM's Asset ID³ technology can identify and track the movement of IntelliStations "branded" with radio frequency ID tags to streamline deployment, inventory and security measures. Monitor hard drive performance with IBM's SMART Reaction™ proactive failure tools featuring customized client/ manager alerts and automatic backup to ensure the safety of your valuable data. IBM introduced standards-based remote system management to the industry with Wake on LAN (WOL), enabling IS managers to power on systems over the network to perform off-hours tasks such as configuration and software updates. WOL is now supplemented by Alert on LAN technology that monitors and reports on heat, voltage, chassis intrusion, component removal, disconnection to power or the LAN-even when the computer is powered off! Alert on LAN works as a stand-alone application or in conjunction with IBM's Netfinity Manager

and Intel's LANDesk Client Manager® both software clients⁴ are included with IntelliStation—providing unprecedented control over your domain.

Relief for your IT headaches

IBM SystemXtra is designed to make the most of your IT investment by combining a host of technologies, services, and flexible financing to make your job easier. These services include training, on-site recovery assistance and network maintenance. Combined with IBM's Technology Exchange— a flexible and affordable way to upgrade your leased computers after only two years—for a single monthly invoice.

Visit your IBM Business Partner

To view the intelligent performance of the IBM IntelliStation series or get a preview and the full list of supported EDA applications at our Web site *www.ibm.com/pc/us/intellistation*



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- ¹ MHz only measures microprocessor internal clock speed, not application performance. Many factors affect application performance.
- ² M Pro model 6888 Best of Byte award winner Comdex Spring 97 and M Pro model 6898 PC Week Best of Comdex Fall 1997.
- ³ Asset ID allows your IntelliStation to be "scanned" by various radio frequency devices supplied by independent companies. Asset ID is intended for use only with radio Frequency equipment that meets ANSI/IEEE C95.1 1992 RF Radio Frequency Limits.
- ⁴ Diskettes and hard copy documentation available at extra charge.
- ⁵ GB means billions of bytes when referring to hard drive capacity. Accessible capacity may vary.

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IBM IntelliStation M Pro Technical Specifications

Processor	350MHz or 400MHz Pentium II processor, dual capable, 512KB L2 cache
Memory std/max Type/speed/total sockets	64, 128 or 256MB/1GB SDRAM/ECC/100MHz/4 DIMMs
Hard drives ⁴	Up to 9.1 GB 10,000 rpm Wide Ultra SCSI with SMART
Slots O Bays	6 slots: 4PCl, 1 shared PCl/ISA, 1 AGP (5 open slots) 6 bays: (2) 3.5" internal; (2) 3.5" external; (2) 5.25" external
Graphics engines	Matrox Millennium II, 8MB/16MB max PERMEDIA 2 enhanced with 8MB flexible allocation video RAM Intergraph Intense 3D Pro 3400 with 16MB memory Intergraph geometry and lighting accelerator available