# TO WATCH

# IBM CLAIMS DESKTOP GRAPHICS LEAD

The latest news on IBM Corp.'s RISC System/6000 workstation line leaves little doubt that Big Blue is dead serious about taking the market-share lead in workstations by 1993.

For starters, IBM is claiming the price/performance lead in desktop 3-d graphics. By enhancing its PowerStation 320 with the PowerGraphics GTO accelerator, the 320 delivers 990,000 three-dimensional vectors/s for $53,152. That's double the performance of a comparably priced Sun Microsystems product, says the Armonk, N.Y., company. Until last month, PowerGraphics GTO was available only on the RS/6000's 5XX series deskside machines.

**The RS/6000 model 320 desktop workstation now renders 3-d graphics at a rate of almost 1 million vectors/s.**

IBM has also beefed up the 320 with a 25-MHz processor. At the high end, the rack-mountable PowerServer 950 gets a 41-MHz processor.

Providing granularity for the RS/6000 is a key to IBM's workstation strategy (see p. 43). At the low end, for example, maximum memory has gone from 32 to 126 Mbytes since 1990 while storage has jumped from 640 to 800 Mbytes. Similar leaps are true for rack-mounted platforms, which grew to 512 Mbytes memory and 25.2 megaflops performance. ❑

## MOTOROLA'S FDDI CHIP SET CUTS THE GLUE-LOGIC CHIP COUNT

Motorola Inc.'s long-awaited chip set implementing the Fiber Distributed Data Interface has landed, sporting more functionality than the competition and a low price.

Besides just executing the FDDI protocols, Motorola's four-chip set includes circuit modules that deliver lower part counts in key applications, say executives at the company's Austin, Texas, design facility. For example, an embedded pulse-code-modulation state machine cuts the glue logic needed to design a concentrator. Similarly, an on-chip stripping algorithm for reverse bit ordering of addresses makes implementing a bridge less costly.

Station management software codeveloped by Digital Equipment Corp. is also available. The chip set costs $300 in 100-unit purchases. ❑

## AMD'S 40-MHz 386 INCLUDES SLEEP MODE

Advanced Micro Devices Inc. has now begun volume shipments of a 40-MHz version of its Am386 microprocessor family.

A low-power version of the Sunnyvale, Calif., company's chip—the Am386DXL—is aimed at the notebook computer market. In sleep mode, the device consumes less than 1 mA, compared with the current minimum of 133 mA for Intel Corp.'s chip.

The Am386DXL comes in four clock speeds: 20, 25, 33, and 40 MHz. The companion Am386DX, which does not include sleep-mode circuitry, comes in 20-, 25-, and 33-MHz versions.

The 40-MHz Am386DXL is priced at $306 each in 100-unit quantities. The other chips are available only to original equipment manufacturers and do not have published pricing. ❑

## MATROX DELIVERS MORE CAD PUNCH ON PCs

A new graphics controller board from Matrox Electronic Systems Ltd. brings workstation performance to personal computers used in CAD applications.

The Dorval, Canada, company's board uses two Matrox-designed ASICs and a Texas Instruments Inc. TMS320C30 DSP to draw 250,000 two-dimensional vectors/s (150,000 in 3-d) or 20,000 3-d Gouraud-shaded polygons/s for AutoCAD and other design packages. Matrox says the nearest competitor's $5,700 board draws 10,000 polygons/s. The Matrox MG-3D Ultra for the EISA is priced at $5,995; the MG-3D (PC/AT) is $3,495. ❑

## EXPERT SOFTWARE CHECKS QUOTES

System integrators who set up process or manufacturing control systems can get a leg up on the competition with an expert system program from Allen-Bradley Co.

The Abecos program helps prepare quotes for systems built around the Milwaukee company's line of programmable controllers. Running on an IBM Corp. personal computer, the package graphically builds a system from a data base of input/output modules, processors, racks, and related components. It is smart enough to warn users when they are specifying I/O, for example, that exceeds the physical limits of the chassis or the electrical current capabilities of the selected power supply. It also helps match the response time of the control system to design requirements. Users can export results to CAD programs. ❑