

SGI UNVEILS GENERIC X86 WORKSTATIONS

By Peter N. Glaskowsky {5/29/00-04}

For the first time in its history, SGI has introduced workstations made entirely of commodity parts sourced from other companies. The new systems replace SGI's 320 and 540 workstations, introduced last year with proprietary integrated-graphics core logic designed

by SGI (see [MPR 2/15/99-02](#), "SGI Chip Set Powers NT Workstations").

Two of the new machines, the 230 and 330, are based on the VIA Apollo Pro 133A chip set. The 330 supports one or two Pentium III processors at 733 or 800MHz and comes with SGI's VR3 graphics card, which uses what SGI calls a "custom" version of NVIDIA's Quadro chip and 64M of local DDR memory. (We believe the VR3 simply uses a faster version of the same Quadro chip available to other OEMs.) The 230 comes with one Pentium III processor at 667 or 733MHz and does not support a second CPU. The 230 is available with the VR3 card or the less expensive V3 card, which uses NVIDIA's GeForce 256 chip and 32M of DDR memory. Both machines have five PCI slots and can accept up to 1.5G of PC133 SDRAM. Two hard disk choices are offered—a 20G IDE drive and a 9.1G Ultra2 SCSI drive.

The high end of SGI's new product line is held down by the 550, which is available with one or two Pentium III Xeon processors at 733 or 800MHz and is equipped with the VR3 graphics card. The 550 uses Intel's 840 chip set (see [MPR 10/25/99-07](#), "Intel 840 Brings RDRAM to Workstations"), which controls two channels of PC800 RDRAM and two PCI buses. The 550 motherboard is configured with two 64-bit slots and four 32-bit PCI slots. One of the 64-bit slots is occupied by an Ultra160 SCSI card connected to a 9.1G or 18.2G hard disk; extra drives are optional. All three systems have 10/100Base-T Ethernet interfaces.

These new machines start out well behind the leading edge of the workstation market, where performance and features are crucial to success. Faster Intel CPUs and bigger hard disks are offered by other system makers. Though SGI and NVIDIA are strategic partners in developing next-generation professional 3D chips, the new systems do not even include NVIDIA's recently introduced GeForce2 GTS graphics chip (see [MPR 5/15/00-02](#), "WinHEC Sees Great 3D"), which is currently available in systems from competing OEMs. SGI plans to roll out GeForce2 GTS-based cards later this year, but these cards were not ready in time for initial shipments of the new systems. The VIA chip set used in the 230 and 330, while serviceable, is slower than Intel's 820 chip set or its forthcoming 815.

SGI will offer these systems with Windows NT, Windows 2000, or Linux. SGI has announced pricing for only one configuration, the entry-level 230 with Windows 2000, which will cost \$2,895—at the high end of the price range for systems with these features.

SGI's Linux strategy, at least, is differentiated from those of other vendors; the company offers its own set of Linux drivers for 3D (OpenGL) and digital multimedia (OpenML). This is a very small hook upon which to hang a workstation business, however. In its transition from a workstation designer to a workstation manufacturer, SGI has certainly reduced its R&D expenses—but it may see an even greater reduction in revenue. ♦

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