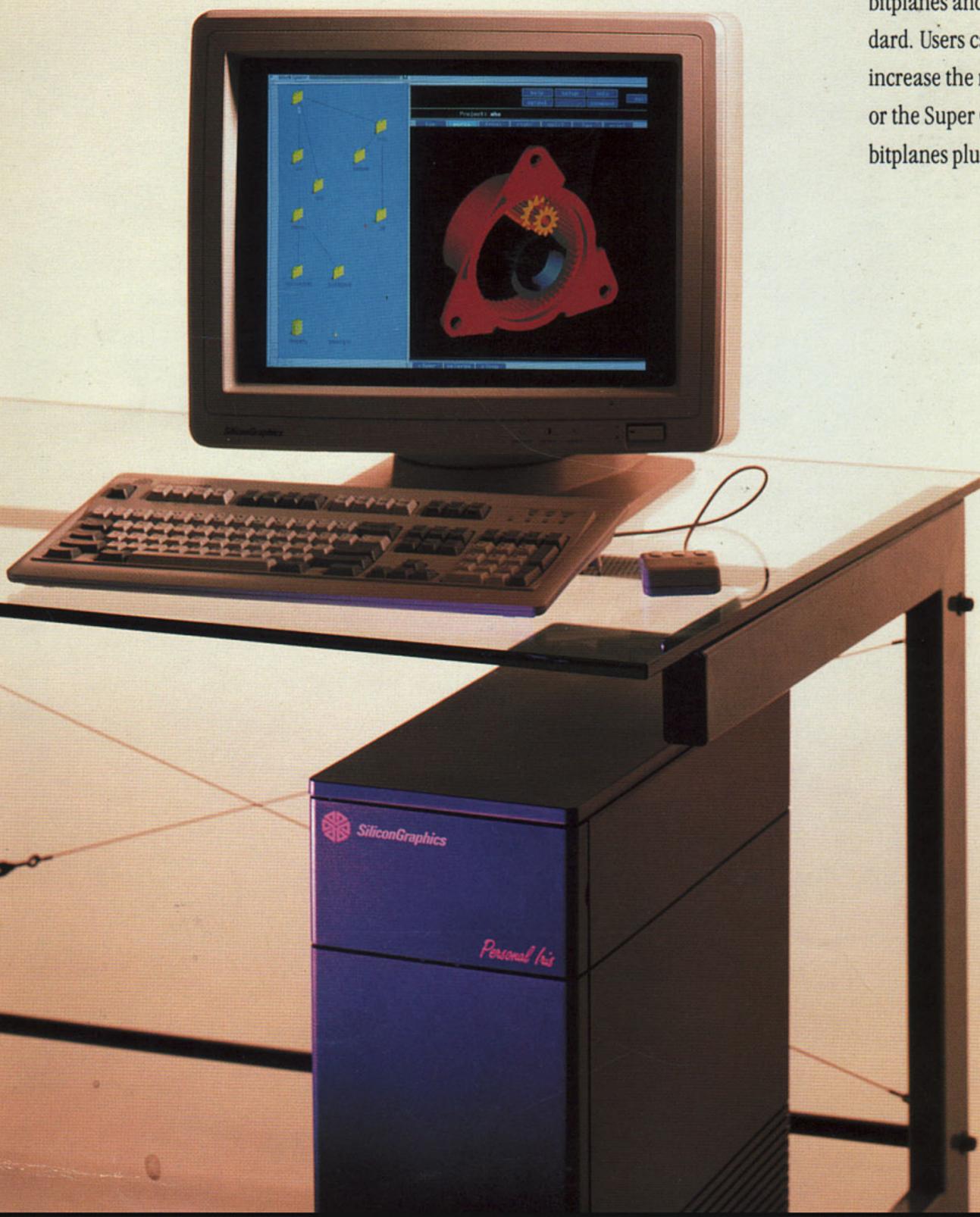


**Personal IRIS
System Data Sheet***Personal IRIS***Personal 3D Workstation**

Silicon Graphics has combined advanced 3D graphics, powerful computing and ease of operation to create the Personal IRIS, the 3D workstation that is ideal for personal use. The quality, value and features of the Personal IRIS make it a superb platform for engineers, scientists, creative designers and all types of visual professionals.

Advanced Graphics

Capitalizing on a rich technology tradition, Silicon Graphics engineers packaged the features and performance of real time 3D graphics into an economical IRIS system. Breakthroughs in component design and optimization of Silicon Graphics' Geometry Pipeline permit a high level of integration and a corresponding reduction in physical size and cost. The result is a single graphics board that provides 8 color bitplanes and 4 administration planes standard. Users can install the Full Color Option to increase the number of color bitplanes to 24, or the Super Graphics Option to obtain 24 color bitplanes plus a 24-bit Z buffer.



The standard Personal IRIS renders 5,000 polygons per second and manipulates 90,000 3D vectors per second.** For applications that need faster performance, the Turbo Graphics Option increases graphics rates to 20,000 polygons per second and 200,000 3D vectors per second.** Anti-aliasing and depth cueing capability are standard as is support for Silicon Graphics' comprehensive Graphics Library software.

Performance Computing

To power demanding applications at your desk, the single board Personal IRIS CPU runs the MIPS 32-bit RISC processor. A floating point co-processor is standard on every system. You have a choice of two CPU configurations: a 12.5Mhz CPU that produces 10 mips and 0.9 mflops of performance, or a 20 Mhz CPU that produces 16 mips and 1.6 mflops of performance.**

Each system includes a large number of standard features, including Ethernet with TCP/IP, two serial ports, a Centronics port, a SCSI port, audio ports and a VME slot. Standard RAM is 8MB, expandable to 32MB.

Visual Desktop

The Personal IRIS is more than an affordable 3D graphics workstation: it is a complete visual system. The 4Sight™ integrated windowing environment enables you to display multiple windows containing X, NeWS and Graphics Library client programs simultaneously. Silicon Graphics WorkSpace® and System Manager® software are intuitive icon-driven tools that harness the power of the UNIX operating system. They simplify file and system management and are included as part of the standard software that is pre-loaded on each system disk.

Fits Your Workgroup

Multiple Personal IRISes, with or without disks, may be combined with Silicon Graphics POWER Series workstations or high performance compute and file servers. This visual workgroup permits users to efficiently share files and computing or graphics resources, and to reduce the average cost of a visual workstation seat.

The Personal IRIS fits easily into your existing workgroup or office environment. Ethernet is standard, and optional communications packages include NFS, IBM 3270, 3770, SNA, 5080 and LU 6.2, DEC communications and a supercomputer interface. SoftPC® lets you run MS-DOS compatible programs while you simultaneously run 3D applications in other windows.

Low Cost of Ownership

Owning and using the Personal IRIS is simple. You can unpack and install the system and be running an application in less than 20 minutes. User-installable options include SCSI cartridge tape and additional disk drives, external I/O peripherals, additional memory and some graphics options. Diagnostics and documentation are simple and straightforward. Design efficiencies, a rigorous quality assurance program and a world class manufacturing facility make the Personal IRIS a reliable, high-quality product. The result is immediate and continuous uptime and a very low cost of ownership. Silicon Graphics offers a variety of service and support programs to cover every type of customer need.

Binary Compatibility

As a member of the Silicon Graphics 4D product family the Personal IRIS is binary code compatible with the entire IRIS-4D family of workstations and servers. Since all 4D systems run the same Graphics Library and UNIX V.3 operating system, applications run on the entire 4D product line. Thus, the Personal IRIS is the entry point to the broadest range of compatible 3D workstations available anywhere.

The Solution You Need

The Personal IRIS is the breakthrough you've been waiting for. With superior 3D graphics, performance computing, integrated visual tools, low cost of ownership and 4D family compatibility, the Personal IRIS is your path to the future.

Performance Chart

CPU	Standard Graphics	Turbo Graphics
4D/25 (20 Mhz)	16 mips	16 mips
	1.6 Mflops	1.6 Mflops
	90K 3D vectors	200K 3D vectors
	5K polygons	20K polygons
4D/20 (12.5 Mhz)	10 mips	10 mips
	0.9 Mflops	0.9 Mflops
	90K 3D vectors	200K 3D vectors
	5K polygons	20K polygons

Available on all above systems: 12, 32 or 56 planes (Entry, Color or Super). Diskless, 155MB or 344MB internal disk (formatted). 14" or 19" color monitor.

Specifications

Standard features	CPU	4D/20:	Processor: 12.5 Mhz 32-bit RISC CPU with 12.5 Mhz floating point coprocessor Cache: 8KB data, 16KB instruction Performance: 10 mips, 0.9 mflops*	Graphics	Turbo graphics upgrade performance: 200,000 3D vectors/second, 20,000 four sided polygons/second** Color graphics upgrade (increases color bitplanes from 8 to 24) Super graphics upgrade (increases total planes from 12 to 56)	
		4D/25:	Processor: 20 Mhz 32-bit RISC CPU with 20 Mhz floating point coprocessor Cache: 32KB data, 64KB instruction Performance: 16 mips, 1.6 mflops*			
	CPU Memory		8 MB dynamic RAM	Peripherals	Dials and buttons image control modules 11 x 11 digitizing tablet with stylus or cursor Video I/O card with genlock NTSC or PAL encoder (VME) High resolution color printer with cables IEEE-488 interface board (VME) 6-port serial I/O board (VME)	
	Storage		Internal 155MB or 344 MB formatted 5.25" Winchester disk drive (SCSI) Diskless model available Standalone systems require a tape drive			
	Display		Tilt/swivel RGB color monitor, 60 Hz non-interlaced 19" 1280 x 1024 resolution or 14" 1024 x 768 resolution	Communications	Networking Software Package with NFS IBM connectivity: SNA, 3270, 3770, 5080, and LU6.2 packages DEC communications software Supercomputer interface package (VME)	
	Graphics	<i>Entry Models</i>	8 color bitplanes plus 2 additional bitplanes for window ID plus 2 additional bitplanes for overlay/underlay (total of 12 bits/pixel)		Productivity Software	Software Developer's Package with C compiler FORTRAN, Pascal, PL/1, ADA compilers POWER FORTRAN parallelizing compiler PC-DOS emulation software EMACS text editor FrameMaker™ software PHIGS software Relational database management software Mathematica™ software One SCSI port with synchronous mode Audio port with LINE IN, MIC and loudspeaker connectors
		<i>Super Models</i>	24 color bitplanes plus four additional bitplanes for window ID plus four additional bitplanes for overlay/underlay, plus 24 bit Z buffer (total of 56 bits/pixel)			
		<i>Standard graphics performance**</i>	90,000 3D vectors/second 5,000 four sided polygons/second Optional turbo available			
	Color range		Color map mode—256 colors displayable (Entry); 4096 colors displayable (Super) RGB mode—16.7 million colors displayable (Super)	Productivity Software	UNIX System V.3 operating system with SGI enhancements SGI WorkSpace user interface software SGI System Manager system administration tools SGI Graphics Library 4Sight Windowing System (NeWS, GL windows, X Windows) Diagnostics Software QuickPaint and QuickModel software Personal Visualizer software	
	Peripherals		Optical 3-button mouse with pad, 200 cpi resolution 101-key sculpted keyboard with numeric keypad and user definable keys			
	Communications		Ethernet port with TCP/IP Two RS-232 serial ports with modem control, up to 38.3K baud (includes RS-423 support) One Centronics port One single-wide, double-high VME slot			
Options			See your Silicon Graphics sales representative for complete listing of options.			
	CPU		20 Mhz upgrade for 4D/20 (12 Mhz) systems Memory expansion to 12MB, 16MB, 24MB or 32MB	Physical and Environmental	19" Monitor	19.2"w x 18.2"h x 19.4"d (48.8 x 46.2 x 49.4 cm) 68 pounds (30.6kg)
	Storage (SCSI)		190MB formatted half height disk 344MB formatted full height disk External 344MB to 1GB formatted disk drive system with power supply and cables (connects to SCSI port)		14" Monitor	13.43"w x 13.98"h x 16.18"d (34.8 x 35.5 x 41.1 cm) 44.4 pounds (20kg)
	Backup (SCSI)		150MB or 60MB ¼" half height cartridge tape drive External 150MB ¼" cartridge tape drive with power and cables 1.2MB full height 5.25" floppy disk drive for 4D SoftPC DOS emulation software ½" SCSI quad density 9-track tape drive			

**Vector rate: 3D 10-pixel connected-vectors/second

Polygon rate: Z-buffered, Gouraud-shaded, four-sided 10 x 10 pixel polygons/second. Triangular polygon rates are significantly higher. Specs are approximations and may vary with computing performance.

*Figures quoted are: MIPS VAX Dhrystone. Mflops: double precision Linpack coded blas.

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