OCTANE™ CADduo

The Single High-Performance System for Simultaneous CAD/CAE Users

The OCTANE CADduo option unleashes the power and versatility of the OCTANE workstation from Silicon Graphics. OCTANE CADduo allows you to support two simultaneous users on a single OCTANE workstation, significantly lowering your hardware and administrative costs per seat.

In addition, OCTANE CADduo has the flexibility to adapt to your company's workflow. It can work as the ideal large assembly review station for a single user, providing access to dual CPUs and twice the memory and disk capacity of a standard CAD seat.

The OCTANE CADduo option is designed to run your most demanding CAD and CAE applications. For a complete list of supported applications, please visit *www.sgi.com/octane/duo*.

Leverage Your Hardware Investment

By dedicating a single system to two users, the OCTANE CADduo option redefines the way you measure system acquisition and support costs per seat. With only a single system to maintain, your system administration costs are significantly less than those incurred for two conventional single-user configurations.

In addition, the OCTANE CADduo option allows you to make better use of your hardware investment. By sharing a large memory pool between simultaneous users, each user has access to twice the amount of memory provided by a standard single-user CAD system. Depending on usage patterns, users will benefit from larger memory and less disk swapping.

Adapts to Your Workflow

OCTANE CADduo also leverages your investment by adapting to your workflow. For simultaneous users, OCTANE CADduo is the ideal low-cost, component-solid-modeling platform. For a single user, OCTANE CADduo becomes the ideal large assembly review station, capable of interactively handling the full assembly. Two engineers can use OCTANE CADduo to model components, and at the end of the day, bring the entire assembly together on the same machine for review.

Big Bandwidth Boosts Multiuser Performance

OCTANE CADduo performs well for two users because of the OCTANE system's robust architecture coupled with the IRIX® operating system's advanced capabilities.

The enormous throughput of the OCTANE system's crossbar architecture enables OCTANE CADduo to move even the largest models at interactive speeds. With peak throughput of up to 1.6GB per second, the crossbar architecture delivers nearly 10 times the bandwidth of traditional computer architectures. This advanced bandwidth combined with the symmetric multiprocessing capabilities of OCTANE allows both users to work at full speed without delay or interruption.

The unique multiuser capability of IRIX includes a sophisticated scheduler to efficiently allocate system resources between the two users. The operating system dynamically allocates memory and CPU capacity to whichever application or user requires it. The result is that the OCTANE CADduo user may feel a performance boost compared to a single CPU workstation with only half the memory.

Equipped to Work the Way You Do

The OCTANE CADduo option can be added to any two-processor OCTANE system. Its features include:
• OCTANE/SE graphics card
• 20-inch monitor
• PCI cardcage
• PCI card for a second keyboard
• 4GB internal option disk
• 256MB memory upgrade
• Keyboard
• Mouse

OCTANE CADduo comes with additional 30-foot cabling so you can set up your second workstation in a shared space, between two cubicles, or even between two adjacent offices. Extension solutions are available from third-party vendors to increase the distance between two users.

OCTANE CADduo
Technical Specifications

BASE SYSTEM FEATURES

Processor Support	1-2 MIPS® RISC 64-bit R12000® 2MB L2 cache
	1-2 MIPS RISC 64-bit R10000® 1MB or 2MB L2 cache
Memory Capacity	128MB–4GB synchronous DRAM (SDRAM)
System Graphics	Resolution (with double-buffered 32-bit color):
	• OCTANE/SE 1280x1024 at 72 Hz
	• OCTANE/SSE 1920x1035 at 60 Hz
	• OCTANE/MXE 1920x1035 at 60 Hz
	Formats:
	• 8-bit, 12-bit, 24-bit RGB single-buffered, z-buffered
	• 24-bit, 36-bit RGB double-buffered, z-buffered
	• 16-bit, 32-bit RGBA double-buffered, z-buffered, stereo
Graphics Features	Texture cache:
	• 4MB standard for OCTANE/MXE
	• 4MB optional upgrade on OCTANE/SE and OCTANE/SSE
	Alpha blending, accumulation buffer, anti-aliased RGB lines and points, texture mapping, fog, lighting features (spot lighting, eight light sources, two-sided lighting, ambient, diffused, and specular), arbitrary clipping planes, depth cueing, soft shadow and depth of field, subpixel positioning, stenciling, stereo graphics, pan and zoom, X11 pixel operations
Storage and I/O	Crossbar: 1.6GB/sec/port (6 ports)
	Internal single-ended SCSI controller
	External single-ended SCSI controller
	4 XIO board slots
	3 internal 3.5" storage bays
	Single half-height, dual full-height PCI slots with optional PCI cardcage
Communication	Single 10Base-T/100Base-TX port
	Dual serial RS422/RS423 DB-9 ports
	Single bidirectional parallel port
	Six audio I/O ports

DISPLAY OPTIONS

Monitors	20" color monitor standard
	24" color monitor optional with OCTANE/SSE and OCTANE/MXE
Graphics	CADduo configurations:
	• OCTANE/SE and OCTANE/SE
	• OCTANE/SE+texture and OCTANE/SE+texture
	• OCTANE/SE and OCTANE/SSE
	• OCTANE/SE and OCTANE/MXE

DIGITAL MEDIA FEATURES

Analog Audio (Standard)	Mono-microphone, self-powered stereo desktop loudspeakers with headphone output, stereo analog—10dBV line level (18-bit A to D and D to A)
Digital Audio (Standard)	16-bit analog stereo I/O (two channels), 24-bit AES-3id I/O (two channels), and 24-bit ADAT optical I/O (eight channels)
OCTANE Personal Video (Optional)	S-Video, composite, Silicon Graphics digital video input and output for NTSC and PAL standards; real-time graphics to video output

EXPANSION OPTIONS

XIO	4-port Ultra SCSI (4 differential)
	4-port 100Base-TX and 6 460Kb/sec serial ports
	2-port Fibre Channel
	OCTANE Channel Option
	OCTANE Personal Video (S-Video and composite)
PCI (Requires PCI Expansion Unit)	Single-port 1000Base-TX
	Single-port 100Base-TX
	Single-port differential Ultra SCSI
	Single-port single-ended Ultra SCSI
	Single-port Fibre Channel
	Single-attached FDDI
	Dual-attached FDDI
	ISDN basic rate interface

STORAGE OPTIONS

Internal	4GB Ultra Fast/Wide drive
	9GB Ultra Fast/Wide drive
	12GB 4 mm DAT drive
External	4GB Ultra Fast/Wide
	9GB Ultra Fast/Wide
	3.5" floppy drive
	12GB 4 mm DAT drive
	32X CD-ROM
	Digital linear tape

BUNDLED SOFTWARE

Collaboration	Outbox
	InPerson®
	IRIS Annotator™
	IRIS Showcase™
	Cosmo™ Player
	Netscape Communicator® 4.05
	InfoSearch
	Netscape® FastTrack Server
	Cosmo™ Create
	Adobe® Acrobat Reader™
	SGI Meeting
	Teleffect

Connectivity

Connectivity	NFS™
	ISDN/PPP support
	Novell NetWare™ Client
	Xinet AppleTalk®
	Samba
Digital Media	SoundEditor
	MovieMaker
	ImageWorks
	SoundTrack
	FX Builder
	MediaRecorder
	MediaPlayer
	CD/DAT Player
	Audio Panel
	Video Panel
	Synth Panel
	Media Convert
Run-Time Libraries	OpenGL Image Extensions
	OpenGL

PHYSICAL ENVIRONMENT

System	16.25" H x 11.0" W x 13.25" D
	14.75" D (depth in localized area of power supply)
	16.25" D (depth in localized area of optional PCI module)
	71.6 lb
	20" monitor
	18.7" H x 18.9" W x 19.9" D
Voltage and Frequency	100-120/200-240 VAC
Heat Dissipation	2400 BTU/hour
Ambient Temperature	+13°C to +35°C operating
	-10°C to +65°C nonoperating
Relative Humidity	10% to 80% operating, no condensation
	10% to 95% nonoperating, no condensation
Altitude	10,000 ft operating
	40,000 ft nonoperating
Vibration	0.02", 5-19 Hz; 0.35G, 19-500 Hz

REGULATORY AGENCY

Electromagnetic Emission	FCC Class A
	Canada DOC Class A
	CISPR22 Class A
	VCCI Class A

OCTANE is part of the Silicon Graphics visual workstation product family, which includes the O2™, OCTANE, and Onyx2™ systems for UNIX® and the Silicon Graphics 320™ and Silicon Graphics 540™ workstations for Windows NT.

SiliconGraphics
Computer Systems