Just the Facts

The product information contained in Just the Facts will be announced to the general public March 29, 1994. Until that time, this information is considered Sun confidential. It may be used with customers who have signed nondisclosure agreements.

SPARCstation™ 5 System: The Value Leader for the Enterprise Network Desktop

Designed for the Enterprise Network Desktop

The SPARCstation™ 5 system delivers the rapid application performance that today's network desktop user needs. Its fully balanced hardware design includes

- New microSPARC II processor available in 70 and 85 MHz
- State-of-the-art graphics
  - Low-priced entry 8-bit graphics
  - TurboGX™ high-performance 8-bit graphics
  - TurboGXplus™ high-resolution (1280 x 1024) double-buffered 8-bit graphics
  - ZX powerful 3-D 24-bit graphics

The SPARCstation 5 system supplies access to state-of-the-art technologies that are crucial to the enterprise desktop user's success

- High-speed networking
- Collaborative multimedia

The SPARCstation 5 system's new innovative package provides the foundation for the growth and innovation that the enterprise desktop user needs

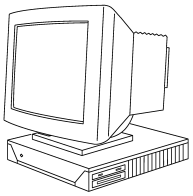
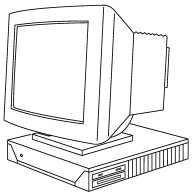
- Configurability
- Expandability
- Flexibility

Through a simple, cost-effective, board swap upgrade to the multiprocessing SPARCstation 20, the SPARCstation 5 system supplies outstanding investment protection.

The SPARCstation 5 system empowers the enterprise network desktop user by standardizing on the Solaris® open enterprise computing solution — the first choice for the development and deployment of client-server applications.

SPARCstation 5 System: The Value Leader for the Enterprise Network Desktop *(cont.)*

Desktop Feature Comparisons

			
	SPARCclassic™	SPARCstation 5	SPARCstation 20
Positioning	Price Leader	Value Leader	Performance Leader
Processor	50-MHz microSPARC™	70- or 85-MHz microSPARC II	50- or 60-MHz SuperSPARC™
Base memory	16 MB	16 MB	32 MB
Maximum memory	96 MB	256 MB	512 MB
Internal disk capacity	207 – 535 MB	535 MB – 2.1 GB	535 MB – 2.1 GB
External disk capacity	42 GB	40 GB[1]	71 GB
SBus I/O slots	Two 32-bit	Three 32-bit	Four 64-bit
Network	Twisted pair AUI opt.	Twisted pair AUI opt.	Twisted pair AUI opt.
Audio	8 bit	16 bit	16 bit
Graphics	8-bit color	8-bit color, TurboGX, TurboGXplus, ZX	SX, TurboGX, TurboGXplus, ZX
Monitors	15-, 17-, 20-in. color 20-in. gray	15-, 17-, 20-in. color 20-in. gray	17-, 20-in. color 20-in. gray
Software	Solaris 2.1 or 1.1.1	Solaris 2.3 Edition II or 1.1.1 Version B	Solaris 2.3 or 1.1.1 Version B

1. Graphics board occupies one SBus slot.

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SPARCstation™ 5 System: Fast Application Performance

Technology Overview

Through a fully balanced hardware design, the SPARCstation™ 5 system delivers the very fast application that enterprise desktop users need today.

microSPARC™ II Processor

- **Features**
  - Choice of 70- or 85-MHz processor
  - 16 KB of instruction cache
  - 8 KB of data cache
  - Improved floating-point unit
  - New memory management unit with 256 context switches
  - Access to up to 256 MB of memory
- **Benefit**
  - More than twice the performance of microSPARC processor

High-Speed Memory Bus

- **Feature**
  - 64-bit high-speed memory bus
- **Benefit**
  - High-performance access to memory

Entry 8-Bit Frame Buffer

- **Feature**
  - 8-bit color 1152 x 900 resolution (FCC Class A and VCCI Class I)
- **Benefit**
  - Low-cost unaccelerated color graphics

TurboGX™ Accelerator

- **Feature**
  - 8-bit color 1152 x 900 resolution with 762 K 2-D in 405 K 3-D vectors/sec.
- **Benefit**
  - Low-cost accelerated color graphics

TurboGXplus™ Accelerator

- **Feature**
  - 8-bit color 1280 x 1024 resolution with more than 1.4 million 2-D in 500 K 3-D vectors/sec.
- **Benefit**
  - Accelerated high-resolution, double-buffered color graphics

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SPARCstation 5 System: Fast Application Performance *(cont.)*

ZX Graphics

- **Feature**
  - 24-bit 1280 x 1024 resolution for complex 3-D modeling
- **Benefit**
  - Low-priced, industry-leading 3-D color graphics with 24-bit high resolution and double buffering

SBus

- **Feature**
  - 32-bit SBus
- **Benefit**
  - High-performance industry-standard bus for fast graphics and I/O performance

Fast SCSI II

- **Feature**
  - 10-MB/sec. SCSI II
- **Benefit**
  - Fast access and retrieval of mass storage

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SPARCstation 5 System: New Low-Cost Expandable Package

Low-Cost Expandable Package

The SPARCstation 5 system's new innovative package furnishes the foundation for the growth and innovation that the network needs and saves desktop space as well.

• **Features**	• **Benefits**
– 409 mm x 416 mm x 78 mm	– New design saves valuable desktop space through industry-leading internal expansion; monitor can be placed on the box
– Supports four internal devices, including one or two 10-MB/sec. 535- or 1.05-GB pluggable internal disk drives	– Fast access to more than 2 GB of data
– Optional internal CD-ROM	– Support for current and future multimedia and other application requirements
– Optional internal floppy disk	– Support for current and future application requirements such as Wabi™ and SunPC™ software products
– Support for up to 256 MB of memory	– Easy to add memory as requirements grow
– Three 32-bit SBus slots	– Industry standard bus for expansion allowing for requirements such as SunVideo™, SunATM, and SunFastEthernet adapters
– Two synchronous serial ports	– Fast serial support for modems, printers, and other I/O devices
– One parallel port (optional cable required)	– Bidirectional parallel port for I/O requirements
– Twisted-pair Ethernet	– Choice of network connection strategy
– AUI Ethernet (optional cable required)	– Choice of network connection strategy
– 16-bit audio, line in/out, headphone, and microphone	– High-quality audio for telephony and multimedia applications

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SPARCstation 5 System: Investment Protection for the Future

Upgradeable to a SPARCstation 20 System

One of the unique features of the SPARCstation 5 system is that it offers excellent investment protection. Through a simple board swap, the SPARCstation 5 system can be upgraded to the SPARCstation 20 power desktop.

- **Features**
  - Identical package used for the SPARCstation 5 and SPARCstation 20 systems
  - Simple board swap upgrade to a SPARCstation 20 system
- **Benefits**
  - Offers excellent investment protection; uses the same power supply, internal disk drives, internal CD-ROM, and internal floppy drive
  - Provides a very low-cost path to SuperSPARC™ multiprocessing technologies

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The SPARCstation 5 System: New 17-inch Premium Color Monitor

Color Monitor

The SPARCstation 5 system will be introduced with a new 17-inch premium color monitor.

- **Features**
  - 17-inch CRT, 406 mm x 450 mm x 414 mm
  - Up to 1280 x 1024 at 76-Hz resolution
  - Strict regulatory requirements met
    EMI/RFI standards
    MPR 1990 emissions
    X-Ray emissions
    Safety and ergonomics standards
- **Benefits**
  - Compact monitor that can be placed on the SPARCstation 5 system
  - High resolution and high performance
  - In compliance with all the latest international standards and emission requirements

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SPARCstation™ 5 System: Optimized for the Solaris® Operating Environment

Solaris Operating Environment

The key to the successful enterprise network, the Solaris® operating environment supplies a scaleable architecture, incorporating industry standards and support for multiprocessing and multithreading. The SPARCstation™ 5 system takes full advantage of Solaris system software.

- **Features**
  - Solaris 2.3 Edition II license is included with every system
  - Solaris 1.1.1 Version B license is available as an option
  - JumpStart™ software is standard. One set of media is required per site
- **Benefits**
  - State-of-the-art network enterprise operating environment is standard on the SPARCstation 5 system
  - Support for those applications not yet ported to the Solaris 2.x operating environment
  - Ease of installation and administration

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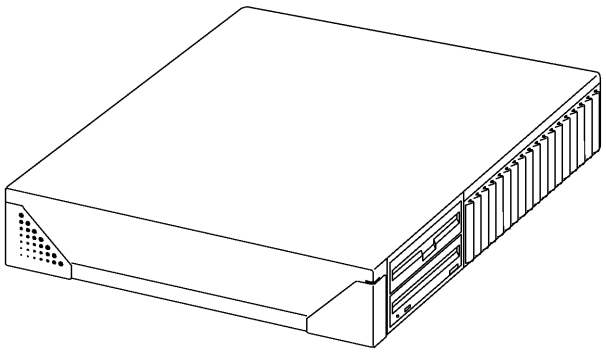
SPARCserver™ 5 System: File Server and LAN Server for the Workgroup

File Server and LAN Server for the Workgroup

The SPARCserver™ 5 is Sun's new workgroup file server and LAN server with high performance and great value.



- The SPARCserver 5 offers the same great performance, capacity, and scaleable package design as the SPARCstation 5 system. A simple board swap enables you to upgrade it to the SPARCserver 20 system.

- The SPARCserver 5 system becomes the ideal *file server* by adding the preconfigured File Server Option Pack. This package provides the necessary storage, tape backup, and software that allows PCs and workstations to share and access files.

  The SPARCserver 5 is designed with a fast 64-bit memory bus and the new microSPARC™ II processor. With twice the performance of microSPARC and larger on chip caches, microSPARC II (112.5 MIPS at 85 MHz) offers greater power and efficiency for data intensive applications.

- The SPARCserver 5 becomes the ideal *LAN server* when you add the preconfigured LAN Server Option Pack. In addition to the necessary storage and tape backup, you get NetWare® SunLink® software. NetWare is the most widely accepted network operating system in PC LAN environments. This means a painless adoption of the SPARCserver 5 system as the gateway between the workgroup local-area network and the rest of the enterprise.

  As a workgroup LAN, the SPARCserver 5 system enables PC and workstation clients to access and share files. It also offers internal LAN communication and LAN administration and the ability to share other network resources, such as printers.

- For file server and LAN server applications, entry configurations on the SPARCserver 5 system start with 32 MB. In addition, the SPARCserver 5 system features three SBus slots for adding powerful disk controllers, network interfaces, and other I/O options. (The SPARCclassic™ server has two SBus slots.)

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SPARCstation™ 5 System Configurations

SPARCstation 5 Systems

• 70-MHz configurations	• Part number
– 15-inch color monitor, 8-bit unaccelerated frame buffer, 16 MB, 535-MB drive	S5DC–70–16–P44
– 20-inch grayscale monitor, TurboGX™ frame buffer, 16 MB, 535-MB drive	S5MX1–70–16–P44
– 17-inch color monitor, TurboGX frame buffer, 16 MB, 535-MB drive	S5FX1–70–16–P44
– 17-inch color monitor, TurboGXplus™ frame buffer, 16 MB, 535-MB drive	S5FX4–70–16–P44
– 20-inch color monitor, TurboGX frame buffer, 16 MB, 535-MB drive	S5TX1–70–16–P44
– 20-inch color monitor, TurboGXplus frame buffer, 16 MB, 535-MB drive	S5TX4–70–16–P44
• 85-MHz configurations	• Part number
– 20-inch color monitor, TurboGX frame buffer, 32 MB, 1.05-GB drive	S5TX1–85–32–P46
– 20-inch color monitor, TurboGXplus frame buffer, 32 MB, 1.05-GB drive	S5TX4–85–32–P46
– 20-inch color monitor, ZX frame buffer, 1.05-GB drive	S5ZX–85–32–P46

SPARCserver 5 Workgroup Servers

• 70-MHz configurations	• Part number
– microSPARC™ II 32 MB, 1.05-GB internal SCSI-2 disk	S5S–70–32–P46
– microSPARC II 32 MB, 2x1.05-GB internal SCSI-2 disk	S5S–70–32–P70
• 85-MHz configurations	• Part number
– microSPARC II 32 MB, 1.05-GB internal SCSI-2 disk	S5S–85–32–P46
– microSPARC II 32 MB, 2x1.05-GB internal SCSI-2 disk	S5S–85–32–P70

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SPARCstation™ 5 and SPARCserver™ 5 Options

Part number	Option description	Maximum number supported per system
Memory		
X108M	8-MB 60ns SIMM memory expansion	8
X132M	32-MB 60ns SIMM memory expansion	8
Monitors		
X359A	20-inch color monitor, TurboGX frame buffer, cable	1
X367A	20-inch color monitor, TurboGXplus frame buffer, cable	1
Mass storage		
X589A	535-MB internal disk	2 *
X649A	1.05-GB internal disk	2 *
X580A	535-MB external desktop disk pack	19 *
X545A	1.05-GB external desktop disk pack	19 *
X547A	4.2-GB external multidisk pack	4
X567A	2.1-GB external desktop disk pack	19 *
X569A	4.2-GB external multidisk pack	4
X570A	8.4-GB external multidisk pack	4
X557A	Desktop SunCD™ Plus pack	1
X660A	150-MB 1/4-inch tape desktop back pack	1
X822A	5-GB 4mm DAT desktop backup pack	10
X814A	5-GB 8mm tape desktop backup module	10
X827A	20-GB 4mm tape autoloader desktop storage	1
SBus cards		
X453A	SBus Ethernet controller	3
X1053A	SBus fast SCSI-2/buffered Ethernet card	3
X1055A	SBus SCSI host adapter	3
X1012A	SunISDN-BRI/SBI expansion kit	3
X1004A	Token-ring interface/SBus (TRI/S)	3
X1014A	Token-ring interface/SBus (TRI/S)	3
X1009A	High-speed serial interface/SBus (HSI/S)	3
X1019A	High-speed serial interface/SBus (HSI/S)	3
X1008A	Serial parallel controller (SPC/S)	3
X1021A	Sun SBus Prestoserve	1
X1056A	SunFastEthernet adapter	3
X1050A	SunATM-155/MFiber adapter	3
X1051A	SunATM-155/UTP5 adapter	3
X1072A	SBus expansion subsystem (SES/C)	3
X1120A	SunPC™ accelerator SX (also incl. X1124A, X1126A)	1
X1121A	SunPC accelerator DX (also incl. X1125A, X1127A)	1
X1094A	ZX frame buffer	1

* Graphics board occupies one SBus slot.

SPARCstation 5 and SPARCserver 5 Options *(cont.)*

Options

Part number	Option description	Maximum number supported per system
Server packs		
X2023A	1.05-GB file server option pack	1
X2033A	1.05-GB file server option pack	1
X2028A	1.05-GB LAN server option pack	1
X2024A	4.2-GB database server option pack	1
X2025A	4.2-GB database server option pack	1
X2034A	4.2-GB database server option pack	1
X2035A	4.2-GB database server option pack	1
X2036A	8.4-GB database server option pack	1
NPRN–20	Print server option pack – NeWSprinter™ 20	1
SPRN–400	Print server option pack – SPARCprinter™	1
CPRN–360	Print server option pack – NeWSprinter CL+	1
Other options		
X560A	3.5-inch 1.44 internal floppy drive	1
X578A	644-MB internal Slim SunCD Plus	1
Input devices		
X180A	SunButtons™ 32-key function I/O device	1
X190A	SunDials™ 8-dial interactive graphics I/O device 3-D	1
Adapter cables		
X981A	AUI adapter cable	1
X975A	IBM®-compatible parallel port adapter cable	1
X976A	Centronics-compatible parallel port adapter cable	1
Video/Multimedia		
X218A	VideoPix™ image capture board	1
X1085A	SunVideo™ real-time video board	1
X487A	Multimedia kit, SunVideo, camera	1
X485A	Color video camera	1

Configuration Guidelines

- Licenses: The Solaris® 2.3 Edition II license comes standard with every SPARCstation™ 5 system. The Solaris 1.1.1 Version B license can be ordered separately
- Media: The SPARCstation 5 system is preloaded with JumpStart™ software. One copy of the media is required per site (Solaris 2.3 Edition II, part no. SOLD-2.3-Sup C or Solaris 1.1.1 Version B, part no. SX-21)
- Total of eight memory slots available. The 16-MB base memory configuration uses two 8-MB single in-line memory modules (SIMMs) consuming two slots, leaving six slots vacant. The 32-MB memory configuration uses one 32-MB SIMM consuming one slot, leaving seven slots vacant. SIMMs can be added one at a time and capacities can be mixed

SPARCstation 5 System: Options *(cont.)*

Unsupported SBus Options

Part number	Option description
X1003A * X1005A *	FDDI single-attach SBus interface card FDDI single-attach SBus interface card

* This FDDI SBus card does not comply with the SBus specification. A new FDDI card will be available shortly. Please contact the SMCC Networking Product Manager for more information.

SPARCstation™ 5 Upgrades

Upgrade Paths

Upgrade	Customer receives	Customer returns
SPARCstation™ SLC™, SPARCstation ELC™ to SPARCstation 5 system	SPARCstation 5 full system	SPARCstation SLC or SPARCstation ELC full system
SPARCclassic™, SPARCstation IPC™, or SPARCstation 1 / 1+ to SPARCstation 5 system	SPARCstation 5 system chassis	SPARCclassic, SPARCstation IPC, or SPARCstation 1 / 1+ chassis
SPARCstation LX, SPARCstation IPX™, or SPARCstation 2 to SPARCstation 5 system	SPARCstation 5 system chassis	SPARCstation LX, SPARCstation IPX, or SPARCstation 2 chassis

Configuration Guidelines

- Licenses: Solaris® 2.3 Edition II license comes standard with every SPARCstation 5 system upgrade. Solaris 1.1.1 Version B license can be ordered separately
- Media: The SPARCstation 5 system is preloaded with JumpStart™ software. One copy of the media is required per site (Solaris 2.3 Edition II, part no. SOLD-2.3Sup-C or Solaris 1.1.1 Version B, part no. SX–21)
- Total of eight memory slots available. 16-MB base memory configuration uses two 8-MB single in-line memory modules (SIMMs) consuming two slots, leaving six slots vacant. 32-MB memory configuration uses one 32-MB SIMM consuming one slot, leaving seven slots vacant. SIMMs can be added one at a time and capacities can be mixed
- Internal disk: SPARCstation 5 systems have new internal disk drives and do not support internal drives from SPARCstation 2, SPARCstation IPC, or SPARCstation IPX systems
- Memory: SPARCstation 5 memory (60ns) required; SPARCstation 2, SPARCstation IPX, SPARCstation LX, SPARCstation IPX, SPARCstaion ELC, and SPARCstation SLC memory not supported

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SPARCstation 5 Upgrades *(cont.)*

Upgrades to SPARCstation 5 System

• Upgrades to 70-MHz configurations	• Part number
– Full system upgrade from SPARCstation SLC SPARCstation ELC to SPARCstation 5 system, 17-inch color, TurboGX frame buffer, 16 MB, 535-MB disk	UG–ELC–S5FX1–P44
– Chassis upgrade from SPARCclassic, SPARCstation IPC, or SPARCstation 1 / 1+ to SPARCstation 5 system, TurboGX frame buffer, 16 MB, 535-MB disk	UG4/15/40/6X–S5P44
– Chassis upgrade from SPARCstation 2, SPARCstation LX, or SPARCstation IPX to SPARCstation 5 system, TurboGX frame buffer, 16 MB, 535-MB disk	UG4/30/50/75–S5P44
• Upgrades to 85-MHz configurations	• Part number
– Chassis upgrade from SPARCclassic, SPARCstation IPC, or SPARCstation 1 / 1+ to SPARCstation 5 system, TurboGX frame buffer, 32 MB, 1-GB disk	UG4/15/40/6X–S5P46
– Chassis upgrade from SPARCstation 2, SPARCstation LX, or SPARCstation IPX to SPARCstation 5 system, TurboGX frame buffer, 32 MB, 1-GB disk	UG4/30/50/75–S5P46
– Competitive full-system upgrade to SPARCstation 5 system, 20-inch color, TurboGX frame buffer, 32 MB, 1-GB disk	CUS5TX–85–32–P46
– Competitive HP®/Apollo® upgrade to SPARCstation 5 system, 20-inch color, TurboGX frame buffer, 32 MB, 1-GB disk	SUG–S5TX–85–32–P46

SunSpectrum℠ Customer Service Program

SunSpectrum℠ support programs are designed to meet customers' complete system needs, from total business support to self-maintenance and any level in-between. The SunSpectrum program supports a flexible range of services, allowing customers complete systems coverage for hardware, software, network applications, and network interoperability problems. A single fee covers the support for customers' entire systems — no matter what the configuration — making ordering and support administration easy and painless. Customers should check with their local customer support representative for program/feature variance and availability in their area.

Services	SunSpectrum Platinum℠ program	SunSpectrum Gold℠ program	SunSpectrum Silver℠ program	SunSpectrum Bronze℠ program
Telephone assistance, unlimited	Seven day, 24 hour	Seven day, 24 hour	8AM-8PM, M-F	8AM-5PM, M-F
On-site response	Seven day, 24 hour	8AM-8PM, M-F	8AM-5PM, M-F	
Customer defined priority	✓	✓	✓	
Urgent (phone/on site)	Live/two hour	Live/four hour	Live/four hour	Four hour/NA
Serious (phone/on site)	Two hour/ four hour	Two hour/ next day	Two hour/ next day	Four hour/NA
Non-critical (phone/on site)	Four hour/ customer convenience	Four hour/ customer convenience	Four hour/ customer convenience	Four hour/NA
Remote dial-in analysis	✓	✓	✓	✓
Replacement hardware parts	On-site technician	On-site technician	On-site technician	Courier, two business days
Solaris® enhancement releases	✓	✓	✓	✓
Patches and maintenance releases	✓	✓	✓	✓
SunSolve™ license	✓	✓	✓	✓
EarlyNotifier™ service	✓	✓	✓	✓
Seven-day, 24-hour telephone coverage	✓	✓	Option	
Seven-day, 24-hour on-site coverage	✓	Option	Option	
Two-hour on-site response	✓	Option	Option	
Self-paced education library	✓	✓	Option	
Personal technical account support	✓	✓	Option	
On-site technical support reviews	Quarterly	Semiannual	Option	
Technical support plan	✓			
99% server uptime guarantee	✓			
Site activity log	✓	✓		
Coaching and training service	15 days per year			

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Materials Abstract

All materials will be available on SunWIN March 29, except where noted otherwise.

Collateral	Description	Purpose	Distribution	Token # or Hibbert order #
Power Pack				
– *The Clear Choice for Enterprise Network Desktop Systems* customer presentation	Presentation on Sun's desktop product line Slide notes for presentation	Sales tool	SunWIN, Reseller Resource CD	32035 32221 32037
– *Just the Facts*	Reference guide for SPARCstation 5 system	Training	SunWIN, Reseller Resource CD	32112
References				
– *Sun Intro*	Introduction e-mail	Training	SunWIN, Reseller Resource CD, e-mail	32114
– *SPARCstation Desktop Product Line Overview*	Quick reference cards (available end of April)	Training	SunWIN, Reseller Resource CD, e-mail	10826
– *SPARCserver™ Desktop Product Line Overview*				24517
– *Competitive Summary – Workstations*				12259
– *Desktop Upgrades Product Line Overview*				24513
– *SPARCstation Graphics Overview*				24507
– *Family-at-a-Glance*	SPARCstation desktop family	Sales tool	SunWIN, Reseller Resource CD	20858
– *S/M/L*	Small/Medium/Large	Marketing tool	SunWIN, Reseller Resource CD	32116
– *Customer Service Transfer of Information (CS TOI)*	Customer service training video	Training	Solid Color Productions 1/510-505-0666 (order# SEVT3–2013)	

Materials Abstract *(cont.)*

Collateral	Description	Purpose	Distribution	Token # or Hibbert order #
Guides				
– *SPARCstation 5 Product book*	Complete electrical, mechanical, and environmental product specifications	Technical information	SunWIN, Reseller Resource CD	32186 32188 32190 32192 32194 32196
– *Configuration guide*	Internal details of SPARCstation 5 system	Sales tool	SunWIN, Reseller Resource CD	32198
Intro to Go training kit				
– Training video	Training video for system engineers on the SPARCstation 5 features and technical review of product	Training	Mail	
– Facilitator's guide	Guide to planning a training seminar	Training	Mail	
Product literature				
– SPARCstation 5 datasheet	Datasheet	Sales tool	Mail, Order	DE552–0
– SPARCserver 5 and SPARCserver 20 datasheet	Datasheet	Sales tool	Mail, Order	DE547–0
Performance brief				
– *Desktop SPARCstation Performance Overview*	System performance comparisons on SPARCstation product line	Sales tool	SunWIN, Reseller Resource CD	31674
– *SPARCstation 5 Performance Brief*	System performance information	Sales tool	SunWIN, Reseller Resource CD	32200
White papers				
– *microSPARC™ II Architecture*	Internal details of product	Training	SunWIN, Reseller Resource CD	32203
– *SPARCstation 5 Architecture*	Internal details of product	Training	SunWIN, Reseller Resource CD	32205
Competition				
– Competitive brief	Competitive analysis	Sales tool	SunWIN, Reseller Resource CD	32207