NEXTSTEP RELEASE 3.2 FOR INTEL PROCESSORS HARDWARE COMPATIBILITY GUIDE

NEXTSTEP DEVICE SUPPORT OVERVIEW

This document describes in general terms the types of PC-compatible hardware that is supported by NEXTSTEP Release 3.2 for Intel Processors.
This guide is divided into three general sections:

• *Certified Systems* - These are PC-compatible systems that have been thoroughly tested by NeXT for the highest level of compatibility with NEXTSTEP.

• *Listed Systems* - These are PC-compatible systems that have been tested by a third party and reported to be compatible with NEXTSTEP.

• *Other Devices and Adapters* - This section lists various devices, adapters and peripherals that have been tested with NEXTSTEP, or reported to be compatible with NEXTSTEP.

Please refer to the specific section for details on testing, compatibility and support of any of the listed items.

Each of these sections refers to specific NeXTanswers documents available for some listed items. To ensure the greatest possible compatibility and support, NeXT recommends reviewing any available NeXTanswers document before purchase.

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NeXTanswers™: This guide and many other kinds of information are available from NeXTanswers, NeXT's free information-retrieval system. For NeXTanswers documents by fax, call (415) 780-3990 from a touch-tone phone. For NeXTanswers by Internet mail, send e-mail to nextanswers@next.com with the two-word subject: INDEX HELP.

Driver Updates: NeXT and third parties continuously develop and enhance drivers for NEXTSTEP. New drivers or updates to existing drivers can be downloaded from the Internet via e-mail or ftp. NeXTanswers provides an easy method to obtain drivers by e-mail. As described above, follow the instructions for obtaining a document via return e-mail. (Note: You must be able to receive NeXT Mail in order to receive a driver through e-mail) To obtain drivers by ftp, use ftp to access ftp.next.com, log in as 'anonymous' with any password and cd to pub. In that directory, there is a README file that explains how to download drivers and other NeXTanswers information. The drivers are located under NeXTanswers/Files/Drivers. If you have any further questions about how to obtain a Driver Update contact NeXT Technical Support at 1-800-955-NeXT.

For current device support, please request the latest edition of this NEXTSTEP Hardware Compatibility Guide from NeXTanswers or by calling 1-800-TRY-NeXT (or your local NeXT representative).

Desktop System Requirements

OVERVIEW

GENERAL REQUIREMENTS FOR DESKTOP SYSTEMS

CPU

i486®-based or Pentium™-based PC compatible computer. NEXTSTEP requires a floating-point coprocessor. Systems using processors without a built-in floating-point coprocessor require an add-on floating-point coprocessor, or upgrade to a 486 or Pentium with built-in floating-point support.

EXPANSION BUS

ISA, EISA, VL-Bus or PCI expansion bus.

AVAILABLE HARD DISK SPACE

NEXTSTEP supports multiple partitioned hard disks, allowing the user to install and boot several operating systems from the same local hard disk. Larger local disks are recommended for stand-alone systems or for systems with a local non-NEXTSTEP partition.

User Environment 120 MB partition minimum, 200 MB recommended for stand-alone systems.

User + Developer Environments 330 MB partition minimum, 400 MB recommended.

RAM REQUIREMENTS

RAM requirements vary depending upon your selection of graphics adapter and imaging model.

Graphics System / Imaging Model	Minimum RAM Required	Recommended RAM
32-bit color	24 MB	32 MB
16-bit color	16 MB	24 MB
8-bit grayscale	12 MB	16 MB
2-bit grayscale	8 MB	12 MB

GRAPHICS ADAPTERS

See the “Graphics” section in this guide for details on graphics support.

DISK INTERFACES

IDE and several SCSI hard disk interfaces are supported.

Note: A SCSI adapter and SCSI CDROM are required for installation of NEXTSTEP.

POINTING DEVICES

Microsoft®- and Logitec®- compatible PS/2® and serial mice. Logitec bus mouse.

PRINTERS

Any PostScript printer connected via a serial or parallel port, including the NeXT Color Printer (connected via a SCSI port). NeXT recommends color PostScript printers with PostScript Level II for proper color support.

NETWORKING

Several Ethernet and Token Ring networking adapters are supported. A networking adapter is optional.

SOUND

NEXTSTEP can support certain PC sound cards for both playback and recording. A sound card is optional.

Portable System Requirements

OVERVIEW

GENERAL REQUIREMENTS FOR PORTABLE SYSTEMS

CPU

i486®-based or Pentium™-based PC compatible portable computer. NEXTSTEP requires a floating-point coprocessor. Systems using processors without a built-in floating-point coprocessor require an add-on floating-point coprocessor, or upgrade to a 486 or Pentium with built-in floating-point support.

AC-POWERED PORTABLES

AC-powered portables require at least one ISA or EISA slot for a SCSI adapter to install NEXTSTEP from CD-ROM.

BATTERY-POWERED PORTABLES AND DOCKING STATIONS

Battery-powered portables require a docking station with at least one ISA slot for a SCSI adapter to install NEXTSTEP from a SCSI CD-ROM drive. Once NEXTSTEP is installed, the portable may be used away from the docking station.

AVAILABLE HARD DISK SPACE

NEXTSTEP supports multiple partitioned hard disks, allowing the user to install and boot several operating systems from the same local hard disk. Larger local disks are recommended for stand-alone systems or for systems with a local non-NEXTSTEP partition.

User Environment 120 MB partition minimum, 200 MB recommended for stand-alone systems.

User + Developer Environment 330 MB partition minimum, 400 MB recommended.

RAM REQUIREMENTS

RAM requirements vary depending upon the user's selection of graphics adapter.

Graphics System	Minimum RAM Required	Recommended RAM
32-bit color	24 MB	32 MB
16-bit color	16 MB	24 MB
8-bit grayscale	12 MB	16 MB
2-bit grayscale	8 MB	12 MB

Note: Since 32-bit, 16-bit color and 8-bit grayscale support require LocalBus, VL-Bus, PCI, or EISA graphics adapters, only AC-powered portables with EISA slots can support 32-bit, 16-bit color or 8-bit grayscale.

GRAPHICS ADAPTERS

Current display technology in popular portable PC-compatibles does not yet support the linear frame buffer NEXTSTEP requires for color or 8-bit grayscale. Therefore, NEXTSTEP supports these systems with 2-bit grayscale at 640 x 480. Active matrix or plasma panels are recommended for better cursor tracking response. ISA systems (AC-powered or through a docking station) can support add-on, high-resolution 2-bit grayscale graphics adapters and EISA-based AC-powered portables can support 16-bit color or 8-bit grayscale graphics with an add-on EISA graphics adapter.

DISK INTERFACES

Both built-in IDE and add-on SCSI hard disk interfaces are supported. Battery-powered portables require a docking station to install a SCSI hard disk interface card.

Note: A SCSI adapter and SCSI CDROM are required for installation of NEXTSTEP.

POINTING DEVICES

Microsoft- and Logitec-compatible PS/2 and serial mice are supported.

PRINTERS

Any PostScript printer connected via a serial or parallel port, including the NeXT Color Printer (connected via a SCSI port). NeXT recommends color PostScript printers with PostScript Level II for proper color support.

NETWORKING

Ethernet and Token Ring networking adapters are supported. Battery-powered portables require a docking station to install a networking adapter. A networking adapter is optional.

SOUND

NEXTSTEP can support certain PC sound cards for both playback and recording. Battery-powered portables require a docking station to install a sound card. A sound card is optional.

Certified Desktop Systems

TABLE LEGEND

Vendor	Model	Expansion Bus	CPU	Graphics Architecture	Supported Graphics Modes																SoftPC Full-Screen Mode	NA #
					2-bit Grayscale		8-bit Grayscale					16-bit Color					32-bit Color						
					640 x 480	1024 x 768	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200		

VENDOR

Vendor, manufacturer, or system provider.

MODEL

Model number or name of system or series of systems tested with NEXTSTEP.

EXPANSION BUS

Standard expansion buses supported. ISA, EISA, VL-Bus (VESA LocalBus), and PCI. Note: EISA systems are compatible with ISA add-on cards.

CPU

Available CPUs (i486 or Pentium).

GRAPHICS ARCHITECTURE

Graphics architecture of the built-in or add-on graphics adapter. Includes interface (LocalBus, VL-Bus, PCI, EISA) and graphics controller. For systems tested with add-on graphics adapters, see “NEXTSTEP for Intel Processors Graphics” in this guide for additional information on supported adapters.

SUPPORTED GRAPHICS MODES

Supported resolution of the built-in or add-on graphics adapter. Gray areas indicate supported resolutions and number indicates video frame buffer size (in megabytes) required to support that resolution. In some cases, additional numbers indicate a specific supported resolution.

SoftPC FULL-SCREEN MODE

Insignia’s SoftPC will run in a seperate window on all supported configurations. For maximum performance, you can flip SoftPC into full-screen mode.

S=Supported; this configuration has been verified by NeXT to support SoftPC in full-screen mode.

NS=Not supported; this configuration has been verified by NeXT not to support SoftPC in full-screen mode.

If this entry is left blank, NeXT has not verified this configuration to support SoftPC in full-screen mode.

NeXTANSWER DOCUMENT NUMBER

NeXTanswer Document Number providing detailed setup and configuration information.

NEXTSTEP CERTIFIED SYSTEMS OVERVIEW

In order to ensure the highest level of compatibility and support, NeXT has developed a process to comprehensively test specific PC-Compatible system configurations with NEXTSTEP.

* Each specific system configuration has been subjected to a suite of compatibility tests by the NeXT Quality Assurance group.

* A detailed NeXTanswer support document is available listing the specific configuration tested, and any setup information required to configure the system for NEXTSTEP.

* Because of the detailed information available to customers and NeXT's Customer Support personnel, NeXT delivers the best technical support on certified configurations.

* A system platform is loosely referred to as “certified” if it has one or more certified configurations, but all the benefits of certification are available only to users of the specific certified configuration.

* Only the specific revisions of a system unit and its add-on cards listed in the NeXTanswer are certified. Always refer to the latest version of this guide, and the associated NeXTanswer to ensure the specific version of a system is fully certified by NeXT.

* NeXT certification does not necessarily mean “error free”. Certified systems may contain detected or undetected compatibility problems, please refer to the NeXTanswer for the latest information.

Certified Desktop Systems

PC MANUFACTURERS

Vendor refer to footnote below 1,2	Model	Expansion Bus	CPU	Graphics Architecture	Supported Graphics Modes																	SoftPC Full-Screen Mode	NA #
					2-bit Grayscale		8-bit Grayscale					16-bit Color						32-bit Color					
					640 x 480	1024 x 768	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280x 1024	1600 x 1200	640x 480	800x 600	1024x 768	1120x 832	1280x 1024		
Canon	object.station 41	VL-Bus ISA	486 DX4	LocalBus Wingine				2MB	2MB	2MB	2MB 1152x 900	2MB	see NA	2MB	2MB 1152x 900		2MB	2MB				S	1683
COMPAQ	XE 466	ISA	486	LocalBus QVision			2MB	2MB		2MB		2MB	2MB				2MB					S	1671
	XE 560	ISA	Pentium	LocalBus QVision			2MB	2MB		2MB		2MB	2MB				2MB					NS	1672
DEC	XL 560	ISA PCI	Pentium	PCI Diamond Viper PCI			1MB	1MB	1MB 1152x 900	2MB	2MB	1MB	2MB	2MB 1152x 900			2MB	2MB				NS	1559
	XL 590	ISA PCI	Pentium	PCI	Planned for certification by NeXT Computer, Inc for NEXTSTEP 3.3 ONLY																		
	XL EISA Server 66,90 MHz	EISA PCI	Pentium	PCI	Planned for certification by NeXT Computer, Inc for NEXTSTEP 3.3 ONLY																		
	MTE 466d2	EISA	486	LocalBus S3-805				1MB				2MB										S	1459
	MTE 466d2	EISA	486	LocalBus S3-928				1MB		2MB		2MB	2MB		4MB			4 MB	4MB			S	1459
	LPx 466	ISA	486	LocalBus S3-805				1MB														S	1581
	LPx+ 466	ISA	486	LocalBus S3-805	Planned for certification by NeXT Computer, Inc for NEXTSTEP 3.3 ONLY																		
Elonex	WS466		486		Planned for certification by NeXT Computer, Inc for NEXTSTEP 3.3 ONLY																		
	WS4100		486 DX4		Planned for certification by NeXT Computer, Inc for NEXTSTEP 3.3 ONLY																		
HEWLETT PACKARD	Vectra XM-Series	ISA	486	LocalBus S3-928				1MB		2MB		2MB	2MB									S	1464
	Vectra XP-Series	ISA PCI	Pentium	LocalBus S3-928			2MB	2MB	2MB 1152x 819	2MB	2MB	2MB	2MB	2MB 1152x 819	4MB		2MB	2MB	4MB			S	1665
	XM2				Planned for certification by NeXT Computer, Inc., for NEXTSTEP 3.3 ONLY																		

1. When considering a complete system or add-on card, please refer to any available NeXTanswers before purchasing equipment
. To contact NeXTanswers, see page one (1) for instructions.

Certified Desktop Systems (continued)

Vendor refer to footnote below 1,2	Model	Expansion Bus	CPU	Graphics Architecture	Supported Graphics Modes																SoftPC Full-Screen Mode	NA #
					2-bit Grayscale		8-bit Grayscale					16-bit Color					32-bit Color						
					640 x 480	1024 x 768	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280x 1024	1600 x 1200	640x 480	800x 600	1024x 768	1120x 832	1280x 1024		
Intel	Premiere	ISA PCI	Pentium	LocalBus ATI 68800	Planned for certification by NeXT Computer, Inc.																	
	Premiere	ISA PCI	Pentium	LocalBus CirrusLogic 5434	Planned for certification by NeXT Computer, Inc.for NEXTSTEP 3.3 ONLY																	
NEC	Image 466es	VL-Bus ISA	486	LocalBus ET4000 W32i			1MB	1MB	2MB	2MB		1MB	2MB interlaced								S	1466
	Image 4100es	VL-Bus ISA	486 DX4	LocalBus ET4000 W32i	Planned for certification from NeXT Computer, Inc.																	
	PowerMate	VL-Bus ISA	486	LocalBus Wingine	Planned for certification from NeXT Computer, Inc. for NEXTSTEP 3.3 ONLY																	
	Express/II P60ST	EISA PCI	Pentium	Diamond Viper PCI 2MB VRAM			1MB	1MB		2MB	2MB	1MB	2MB	2MB 1152x 900			2MB	2MB			S	1467

Certified Portable Systems

TABLE LEGEND

Vendor	Model	Power Source	Built-in Panel Type	Built-in Expansion	Docking Station Expansion	CPU	Max DISK/ RAM	Supported Graphics Resolution 2-bit Grayscale				NeXTanswer Document Number
								Built-in Panel	External Monitor			
								640 x 480	640 x 480	800 x 600	1024 x 768	

VENDOR

Vendor, manufacturer, or system provider.

MODEL

Model number or name of system (or series of systems) tested with NEXTSTEP.

POWER SOURCE

Standard power source: AC or battery.

BUILT-IN PANEL TYPE

Built-in display panel technology: passive matrix, active matrix, or plasma.

BUILT-IN EXPANSION

For AC-powered portables: Fax/Modem, etc., + ISA or EISA slots. For battery-powered portables: Fax/Modem, PCMCIA, etc. This is reference information only, and does not represent supported devices.

DOCKING STATION EXPANSION

For battery-powered portables, ISA, Mass Storage (MS), Keyboard + Mouse + Monitor Port (KMM). NA indicates not applicable to AC-Powered portables.

CPU

Available CPUs (486 or Pentium).

MAX DISK/RAM

Maximum hard disk and RAM supported by this system. Contact manufacturer for current sizes supported.

SUPPORTED GRAPHICS RESOLUTION 2-BIT GRAYSCALE

Supported resolution of the built-in graphics adapter. Gray areas indicate supported resolutions. “Built-in Panel” indicates resolution supported by built-in graphics display panel. “External Monitor” indicates resolution supported by the built-in graphics adapter when connected to an external monitor.

NeXTANSWER DOCUMENT NUMBER

NeXTanswer Document Number providing detailed setup and configuration information

NEXTSTEP CERTIFIED SYSTEMS OVERVIEW

In order to ensure the highest level of compatibility and support, NeXT has developed a process to comprehensively test specific PC-Compatible system configurations with NEXTSTEP.

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* A detailed NeXTanswer support document is available listing the specific configuration tested, and any setup information required to configure the system for NEXTSTEP.

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Certified Portable Systems

PC MANUFACTURERS

Vendor Refer to footnote below 1,2,3	Model	Power Source	Built-in Panel Type	Built-in Expansion	Docking Station Expansion	CPU	Max DISK/ RAM	Supported Graphics Resolution 2-bit Grayscale				NeXTanswer Document Number
								Built-in Panel	External Monitor			
								640 x 480	640 x 480	800 x 600	1024 x 768	
COMPAQ	LTE Lite4/25c	Battery	Active Matrix Color	Fax/Modem	ISA, MS, KMM	486SL	200/20					1472
NEC	UltraLite Versa C	Battery	Active Matrix Color	PCMCIA	ISA, MS, KMM	486SL	340/20					1477

Listed Desktop Systems

TABLE LEGEND

Vendor	Model	Expansion Bus	CPU	Graphics Architecture	Graphics Modes																Release Tested	SoftPC Full-Screen Mode	NA #
					2-bit Grayscale		8-bit Grayscale					16-bit Color					32-bit Color							
					640 x 480	1024 x 768	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200			

VENDOR

Vendor, manufacturer, or system provider.

MODEL

Model number or name of system or series of systems tested with NEXTSTEP.

EXPANSION BUS

Standard expansion buses supported. ISA, EISA, VL-Bus (VESA LocalBus), and PCI. Note: EISA systems are compatible with ISA add-on cards.

CPU

Available CPUs (i486 or Pentium).

GRAPHICS ARCHITECTURE

Graphics architecture of the built-in or included graphics adapter. Includes interface (LocalBus, VL-Bus, PCI, EISA) and graphics controller. For systems tested with add-on graphics, see “Graphics” in this guide for choice of supported adapters.

GRAPHICS MODES

The resolution of the built-in or included graphics adapter. Gray areas indicate supported resolutions and number indicates video frame buffer size (in megabytes) required to support that resolution. “Built-in VGA” indicates resolution supported by built-in standard VGA graphics; higher resolution support may require an add-on graphics adapter.

RELEASE TESTED

The Release of NEXTSTEP for Intel Processors used to test this system.

SoftPC FULL-SCREEN MODE

Insignia’s SoftPC will run in a seperate window on all supported configurations. For maximum performance, you can flip SoftPC into full-screen mode.

S=Supported; This configuration has been reported to support SoftPC in full-screen mode.

If this entry is left blank, this configuration has not been reported to support SoftPC in full-screen mode.

NA #

NeXTanswer Document Number providing detailed setup and configuration information.

NEXTSTEP LISTED SYSTEMS OVERVIEW

Listed systems are those whose NEXTSTEP compatibility has been reported by a third party, not determined by NeXT's Quality Assurance department. NeXT lists these systems for informational purposes only, as a convenience to our customers. NeXT does not warrant or monitor the accuracy or completeness of the information provided on *Listed* systems.

Listed Desktop Systems

PC MANUFACTURERS

Vendor refer to footnote below 1,2	Model	Expansion Bus	CPU	Graphics Architecture	Graphics Modes																Release Tested	SoftPC Full-Screen Mode	NA #
					2-bit Grayscale		8-bit Grayscale					16-bit Color					32-bit Color							
					640 x 480	1024 x 768	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280x1 024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200			
AST	Premmia 4/d	EISA	486	LocalBus ATI 68800								1MB										3.2	S	
CONTINENTAL COMPUTER	3800 NeXT EISA	EISA VL-Bus	486	VL-Bus ATI 68800								1MB	2MB									3.2	S	
	3800 NeXT ISA	ISA VL-Bus	486	VL-Bus ATI 68800								1MB	2MB									3.2	S	
Data Net	Eclipse 535e	ISA VL-Bus	486	Number 9 GXE Level 11									2MB									3.2		1572
	Eclipse 850e	ISA VL-Bus	Pent.	Number 9 GXE Level 12									2MB									3.2		1571
	Eclipse 850e	ISA PCI	P54C	Diamond Stealth 64									4MB									3.2		1673
Dell	OptiPlex MXV Series	ISA VL-Bus	486	Number 9 GXE Level 12									2MB									3.2		1462
IBM Please note that the IBM Systems require an Adaptec 1542B in order to install NEXTSTEP 3.2	6472-xxx 6482-xxx 6492-xxx	ISA VL-Bus	486 DX2	VL-Bus Number 9 GXE- Level 12									2MB									3.2		1611
		ISA VL-Bus	486 DX/33	VL-Bus Number 9 GXE -Level 12									2MB									3.2		1612
JCIS	JC/NX 466/2C	ISA VL-Bus	486	C&T Wingine									2MB									3.2		
	JC/NX 466/2N	ISA VL-Bus	486	C&T Wingine									2MB									3.2		
	JC/NX 480/2C	ISA VL-Bus	486	C&T Wingine									2MB									3.2		
LAN Computer Services, Inc.	Micro Intl. GA-486TA	EISA VL-Bus	486	VL-Bus ATI Ultra Pro									2MB									3.2		1663
StreetLight Software	ST486NX	ISA VL-Bus	486	ATI Graphics Ultra Pro										2MB								3.2		1569

1. When considering a complete system or add-on card, please refer to any available NeXTanswers before purchasing equipment. To contact NeXTanswers, see page one (1) for instructions.
2. A SCSI adapter and SCSI CDROM are required for installation of NEXTSTEP.

Listed Portable Systems

TABLE LEGEND

Vendor	Model	Power Source	Built-in Panel Type	Built-in Expansion	Docking Station Expansion	CPU	Max DISK/ RAM	Graphics Resolution 2-bit Grayscale				NeXTanswer Document Number
								Built-in Panel	External Monitor			
								640 x 480	640 x 480	800 x 600	1024 x 768	

VENDOR — Vendor, manufacturer, or system provider.

MODEL — Model number or name of system (or series of systems) tested with NEXTSTEP.

POWER SOURCE — Standard power source: AC or battery.

BUILT-IN PANEL TYPE — Built-in display panel technology: passive matrix, active matrix, or plasma.

BUILT-IN EXPANSION — For AC-powered portables: Fax/Modem, etc., + ISA or EISA slots. For battery-powered portables: Fax/Modem, PCMCIA, etc. This is reference information only, and does not represent supported devices.

DOCKING STATION EXPANSION — For battery-powered portables, ISA, Mass Storage (MS), Keyboard + Mouse + Monitor Port (KMM). NA indicates not applicable to AC-Powered portables.

CPU — Available CPUs (i486 or Pentium).

MAX DISK/RAM — Maximum hard disk and RAM supported by this system. Contact manufacturer for current sizes supported.

GRAPHICS RESOLUTION 2-BIT GRAYSCALE — The resolution of the built-in graphics adapter. Gray areas indicate supported resolutions. “Built-in Panel” indicates resolution supported by built-in graphics display panel. “External Monitor” indicates resolution supported by the built-in graphics adapter when connected to an external monitor.

NeXTANSWER DOCUMENT NUMBER — NeXTanswer Document Number providing detail setup and configuration information.

NEXTSTEP LISTED SYSTEMS OVERVIEW — *Listed* systems are those whose NEXTSTEP compatibility has been reported by a third party, not determined by NeXT's Quality Assurance department. NeXT lists these systems for informational purposes only, as a convenience to our customers. NeXT does not warrant or monitor the accuracy or completeness of the information provided on *Listed* systems.

Listed Portable Systems

PC MANUFACTURERS

Vendor Refer to footnote below 1,2,3	Model	Power Source	Built-in Panel Type	Built-in Expansion	Docking Station Expansion	CPU	Max DISK/ RAM	Graphics Resolution 2-bit Grayscale				NeXTanswer Document Number
								Built-in Panel	External Monitor			
								640 x 480	640 x 480	800 x 600	1024 x 768	
AST	PowerExec 4SL	Battery	Passive Mono or Color	Fax/Modem	ISA, MS, KMM	486SL	200/32					
	PowerExec 4SL	Battery	Active Matrix Mono	Fax/Modem	ISA, MS, KMM	486SL	200/32					
COMPAQ	Portable 486/M	AC	Passive Matrix Mono	Fax/Modem EISA	NA	486	525/32					
	Portable 486/C	AC	Active Matrix Color	Fax/Modem EISA	NA	486	525/32					
NEC	Prospeed 486C	AC	Active Matrix Color	Fax/Modem EISA	NA	486SX	200/20					
	UltraLite Versa M	Battery	Passive Matrix Mono	PCMCIA	ISA, MS, KMM	486SL	340/20					1477
TOSHIBA	T6400DX	AC	Passive Mono or Plasma	Fax/Modem ISA	NA	486	200/32					1116
	T6400DXC	AC	Active Matrix Color	Fax/Modem ISA	NA	486	200/32					1116
	T4400SX	Battery	Passive Mono or Plasma	Fax/Modem	ISA, MS, KMM	486SX	120/20					
	T4400SXC	Battery	Active Matrix Color	Fax/Modem	ISA, MS, KMM	486SX	120/20					
	T4400C	Battery	Active Matrix Color	Fax/Modem	ISA, MS, KMM	486	200/20					

1. When considering a complete system or add-on card, please refer to any available NeXTanswers before purchasing equipment. To contact NeXTanswers, see page one (1) for instructions.
2. A SCSI adapter and SCSI CDROM are required for installation of NEXTSTEP.
3. A docking station, SCSI adapter and SCSI CDROM are required for installation of NEXTSTEP.

NEXTSTEP GRAPHICS SYSTEM

NEXTSTEP's Display Postscript graphics system supports such advanced capabilities as scalable fonts, unified imaging model for both screen display and printing, image transparency (also known as alpha channel), Pantone color matching, and Pixar Interactive Renderman 3D imaging.

NEXTSTEP's window server composites multiple layers of images, and allows the user to work with images of any quality with any supported imaging model, in other words users can work with a 32-bit color image even on a 2-bit grayscale system!

In order to provide these sophisticated capabilities NEXTSTEP requires a “workstation”-style linear frame buffer graphics system and a high performance 32-bit data path to the frame buffer. The number of colors or shades of gray, depth of transparency, etc., varies depending on the image model supported.

Imaging Model	Colors or Shades of Gray	Transparency (alpha channel)
32-bit color	24-bit (16M colors)	8-bit (256 levels)
16-bit color	12-bit (4,096 colors)	4-bit (16 levels)
8-bit grayscale	8-bit (256 shades of gray)	8-bit (256 levels)
2-bit grayscale	2-bit (4 shades of gray)	2-bit (4 levels)

32-BIT COLOR

Overview NEXTSTEP supports 32-bit color on a variety of graphics controller chips that support linear frame buffer access. Due to the performance requirements of 32-bit color, these graphics adapters must be connected via LocalBus, VESA LocalBus (VL-Bus), PCI or EISA. The ISA expansion bus does not provide the 32-bit data path, or adequate performance to support NEXTSTEP 32-bit color. Refer to the Desktop Systems and Add-on Graphics Adapter charts for specific adapter support.

16-BIT COLOR

Overview NEXTSTEP supports 16-bit color on a variety of graphics controller chips that support linear frame buffer access. Due to the performance requirements of 16-bit color, these graphics adapters must be connected via LocalBus, VESA LocalBus (VL-Bus), PCI or EISA. The ISA expansion bus does not provide the 32-bit data path, or adequate performance to support NEXTSTEP 16-bit color. Refer to the Desktop Systems and Add-on Graphics Adapter charts for specific adapter support.

8-BIT GRAYSCALE

Overview NEXTSTEP supports 8-bit grayscale on a variety of graphics controller chips that support linear frame buffer access. Due to the performance requirements of 8-bit grayscale, these graphics adapters must be connected via LocalBus, VESA LocalBus (VL-Bus), PCI or EISA. The ISA expansion bus does not provide the 32-bit data path, or adequate performance to support NEXTSTEP 8-bit grayscale. Refer to the Desktop Systems and Add-on Graphics Adapter charts for specific adapter support.

2-BIT GRAYSCALE

Overview NeXT has developed a special driver that simulates the linear frame buffer required by NEXTSTEP's graphics system on segmented frame buffer graphics adapters such as standard VGA and Super VGA cards. This allows NEXTSTEP to support most standard VGA cards as well as certain Super VGA cards. Refer to the Desktop Systems and Add-on Graphics Adapter charts for specific adapter support. These graphics adapters can be connected via LocalBus, VESA LocalBus (VL-Bus), PCI, EISA or ISA.

Other Devices and Adapters - Graphics

TABLE LEGEND

Graphics Controller	Vendor	Model	Expansion Bus/Interface	Graphics Resolutions																	Driver Name	Avail.	NA #	Appr.
				2-bit Grayscale		8-bit Grayscale					16-bit Color					32-bit Color								
				640 x 480	1024 x 768	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200				

GRAPHICS CONTROLLER Graphics controller used by the add-on graphics adapter.

VENDOR Vendor, manufacturer, or system provider of the graphics adapter.

MODEL Model number or name of the add-on adapter.

EXPANSION BUS/ INTERFACE Expansion Bus or Interface used by this graphics adapter: LocalBus, VL-Bus (VESA Standard LocalBus), PCI, ISA, or EISA.

GRAPHICS RESOLUTIONS The resolution of the graphics adapter. Gray areas indicate supported resolutions and number indicates video frame buffer size (in megabytes) required to support that resolution.

DRIVER NAME Name of graphics driver used by NEXTSTEP for Intel Processor' Configure application (Video Devices section).

Avail. Availability indicates the current distribution status of any device driver. *CD-ROM* - indicates this driver is included on the latest release of NEXTSTEP for Intel Processors CD-ROM disc; *Planned* - Indicates this driver is planned by NeXT or a 3rd party (if available an approximate date is given for availability of the driver); *Avail.* - Indicates this driver is available from either NeXT or a 3rd party. For drivers available from NeXT, see page 1 for distribution of driver updates.

SoftPC FULL-SCREEN MODE Insignia's SoftPC will run in a seperate window on all supported controllers. For maximum performance, you can flip SoftPC into full-screen mode.

S=Supported; this controller has been verified by NeXT to support SoftPC in full-screen mode.

NS=Not supported; this controller has been verified by NeXT not to support SoftPC in full-screen mode.

If this entry is left blank, NeXT has not verified this controller to support SoftPC in full-screen mode.

NA # NeXTanswer Document Number providing detailed setup and configuration information.

APPROVED An add-on adapter or peripheral is said to be *approved* when it has been tested as a component of one or more NeXT certified configurations. Note that one piece of approved hardware may be incompatible with another; to ensure compatibility, chose a certified configuration and review any available NeXTanswers.

Other Devices and Adapters - Graphics

GRAPHICS ADAPTERS

Graphics Controller see footnote 1	Vendor	Model	Expansion Bus / Interface	Graphics Resolutions																	Driver Name	Avail.	SoftPC Full-Screen Mode	NA #	Appr.
				2-bit Grayscale		8-bit Grayscale					16-bit Color					32-bit Color									
				640 x 480	1024 x 768	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200					
ATI 68800 Rev 3, 6	ATI	Graphics UltraPro VL-Bus	VL-Bus				1MB		2MB		1MB	2MB	2MB Rev 6 only								**ATI Ultra Pro**	**CD-ROM**	**S**	**1122**	**YES**
	ATI	Graphics UltraPro EISA	EISA				1MB		2MB		1MB	2MB	2MB Rev 6 only								**ATI Ultra Pro**	**CD-ROM**	**S**	**1122**	**YES**
ATI 68800 AX	ATI		VL-Bus, PCI	See readme file included with the driver or a future version of this guide for supported modes.																		**Planned Q494**			**YES**
	ATI	Intel Premiere on-board	LocalBus			1MB	1MB	1MB	2MB		1MB	2MB	2MB								**Intel Premier Display Driver**	**BETA Avail.**		**1664**	**BETA**
ATI 88800GX	ATI		VL Bus	See readme file included with the driver or a future version of this guide for supported modes.																		**Planned Q4 94**			**YES**
Canon	Canon	Wingine	LocalBus				2MB	2MB	2MB	2MB 1152x 900	2MB	see cert. NA	2MB	2MB 1152x 900		2MB	2MB				**Canon object.stt ion Display driver**	**Nxt. Ans**	**S (see Cert. NA for details)**	**1632 1674**	**YES**
COMPAQ QVISION	Compaq	QVision 1024/E	EISA				1MB				1MB										**Compaq Qvision**	**CD-ROM**			**YES**
	Compaq	QVision 1280/E	EISA				1MB		2MB		1MB	2MB				2 MB 640 x 480					**Compaq Qvision Update**	**Nxt Ans.**		**1590 1591**	**YES**
	Compaq	Qvision 1280?E Update	EISA	Update will support AT&T RAMDAC. See readme file included with the driver or a future version of this guide for supported modes.																		**Q494**	**BETA for 3.2**		
CIRRUS LOGIC GD542X	STB	Horizon	ISA		.5 MB																**Cirrus Logic GDX542X**	**CD-ROM**	**S**		**YES**
Cirrus Logic 5434				See readme file included with the driver or a future version of this guide for supported modes.																	**Planned Q494**				
JAWS	DELL	450DE/2 DGX	LocalBus										2MB								**Dell Jaws DGX**	**CD-ROM**	**S**		**YES**
TSENG LABS ET-4000 AX			ISA		.5 MB									.							**Tseng Labs ET-4000**	**CD-ROM**			**YES**
TSENG LABS ET-4000 W32i	Several	Several	VL-Bus	See readme file included with the driver or a future version of this guide for supported modes.																	**Tseng Labs ET4000 W32i**	**Beta Avail.**	**S**	**1621 1622**	**BETA**
STANDARD VGA	Various	Various	ISA																		**Default VGA Adapter**	**CD-ROM**			**YES**

1. When considering a complete system or add-on card, please refer to any available NeXTanswers before purchasing equipment.

Other Devices and Adapters - Graphics (continued)

GRAPHICS ADAPTERS

Graphics Controller see footnote 1	Vendor	Model	Expansion Bus / Interface	Graphics Resolutions																Driver Name	Avail.	SoftPC Full-Screen Mode	NA #	Appr.
				2-bit Grayscale		8-bit Grayscale					16-bit Color					32-bit Color									
				640 x 480	1024 x 768	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	640x 480	800x 600	1024x 768	1120x 832	1280x 1024					
S3-805	miro Computer Products AG	miro Crystal 8S	VL-Bus ISA			1MB	1MB				1MB									**S3**	**CD-ROM**		**1485**	
S3-805i	ELSA	Winner 1000	ISA			1MB	1MB	1MB 1152x 864	2MB	2MB	1MB	2MB	2MB							**ELSA_ WINNER**	**ELSA GMbH**		**1660**	**Third Party**
S3-928	Number Nine	GXE-VL Level 11 or 12	VL-Bus			1 MB	1 MB	2 MB 1152 x 819	2 MB		1 MB	2 MB								**#9GXE**	**CD-ROM**	**S**		**YES**
		GXE-VL Level 14, 16	VL-Bus	See readme file included with the driver or a future version of this guide for supported modes.																	**Beta Avail.**		**1617 1618**	**BETA**
	STB	Pegasus-VL	VL-Bus	See readme file included with the driver or a future version of this guide for supported modes.																	**Beta Avail.**		**1619 1620**	**BETA**
	ELSA	Winner 1000	VL-Bus			1MB	1MB				1MB									**ELSA_ WINNER**	**ELSA GMbH**		**1657**	**Third Party**
		Winner 2000				2MB 4MB	2MB 4MB	2MB 4MB	2MB 4MB	2MB 4MB 1408x 1024	2MB 4MB	2MB 4MB	2MB 4MB	4MB		2MB	4MB		4MB 1152x 864		**ELSA_ WINNER**	**ELSA GMbH**		**1659**	**Third Party**
	miro Computer Products AG	miro Crystal 32S	PCI VL-Bus EISA			1MB	1MB	2MB 1152 x 864	2MB	2MB 1408 x 1024	1MB	2MB	2MB 1152 x 864	4MB	4MB 1408 x 1024		4MB				**miro928**	**miro Comp. Prod. AG**		**1486**	**Third Party**
	HP	Vectra XP-Series	Local Bus ISA PCI			2MB	2MB	2MB 1152x 819	2MB	2MB	2MB	2MB	2MB 1152x 819	4MB		2MB	2MB	4MB			HPXP Display	**NXTAns**		**1588 1589**	**YES**
S3 864	ELSA	Winner 1000 PRO				1MB 2MB	1MB 2MB	2MB	2MB 1408x 1024		1MB	2MB	2MB			2MB					**ELSA_ WINNER**	**ELSA GMbH**		**1656**	**Third Party**

Graphics Controller see footnote 1	Vendor	Model	Expansion Bus / Interface	Graphics Resolutions																Driver Name	Avail.	SoftPC Full-Screen Mode	NA #	Appr.
				2-bit Grayscale		8-bit Grayscale					16-bit Color					32-bit Color									
				640 x 480	1024 x 768	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	800 x 600	1024 x 768	1120 x 832	1280 x 1024	1600 x 1200	640x 480	800x 600	1024x 768	1120x 832	1280x 1024					
S3-964	Diamond	Stealth 64	VL-Bus PCI			2MB 4MB	2MB 4MB	2MB 4MB 1152x 864	2MB 4MB	2MB 4MB	2MB 4MB	2MB 4MB	2MB 4MB 1152x 864	4MB	4MB	2MB 4MB	2MB 4MB	4MB	4MB 1152 x864		**Diamond Stealth64**	**NXT Ans.**		**1586 1587**	**YES**
	ELSA GmbH 1-800-272-ELSA	Winner 2000PRO	PCI VL-Bus			2MB 4MB	2MB 4MB	2MB 4MB 1152x 864	2MB 4MB	4MB	4MB	2MB 4MB	2MB 4MB 1152x 864	4MB	4MB		2MB 4MB	4MB	4MB 1152x 864		**ELSA_ WINNER**	**ELSA GMbH**		**1658**	**Third Party**
	Number Nine	GXE 64 Pro	PCI			2MB 4MB	2MB 4MB	2MB 4MB 1152x 864	2MB 4MB	2MB 4MB	2MB 4MB	2MB 4MB	2MB 4MB 1152x 864	4MB	4MB	2MB 4MB	2MB 4MB	4MB	4MB 1152 x864		**Number9 GXE64**	**Nxt Ans.**		**1584 1585**	**YES**
Weitek Power 9000	Diamond	Viper-VL	VL-Bus, PCI			1MB	1MB	1MB 1152x 900	2MB	2MB (PCI only)	1MB	2MB	2MB 1152x 900			2MB	2MB				**Weitek P9000**	**1557, 1558**	**NS**	**1573**	**YES**
	Genoa	VideoBlitz 9200VL	VL-Bus			1MB	1MB	1MB 1152x 900	2MB	2MB	1MB	2MB	2MB 1152x 900			2MB	2MB				**Weitek P9000**	**1557, 1558**	**NS**	**1560**	
Weitek Power9100	Diamond	Viper Pro	PCI	See readme file included with the driver or a future version of this guide for supported modes.																	**Planned Q4 94**			

Other Devices and Adapters

ADDITIONAL DEVICE SUPPORT

NEXTSTEP DEVICE SUPPORT

NEXTSTEP supports a variety of additional devices and add-on adapters.

DISK INTERFACES	Both IDE and several SCSI hard disk interfaces are supported.
POINTING DEVICES	Microsoft®- and Logitec®-compatible PS/2® and serial mice. Logitec bus mouse.
PRINTERS	Any PostScript printer connected via a serial or parallel port, including the NeXT Color Printer (connected via a SCSI port). NeXT recommends PostScript printers with PostScript Level II for proper color support.
NETWORKING	Several Ethernet and Token Ring networking adapters are supported. A networking adapter is optional.
SOUND	NEXTSTEP can support certain PC sound cards for both playback and recording. A sound card is optional.
ADDITIONAL DEVICES	Other popular PC peripherals such as FAX/Modems are supported.

DRIVERKIT

NEXTSTEP for Intel Processors incorporates a newly developed object-oriented driver architecture called DriverKit. DriverKit allows the quick development of device drivers for new peripherals and add-on cards for Intel-based PCs running NEXTSTEP. DriverKit's architecture allows drivers to be loaded at run-time, thereby allowing users to add additional cards or devices to their systems without re-installing the main operating system. Loadable device drivers also allow NeXT and third parties to easily distribute additional drivers as they become available. In order to promote the availability of drivers for NEXTSTEP, NeXT includes the Driver Kit development tools, and source code examples of several drivers on the NEXTSTEP Developer CDROM. NeXT is actively working with hardware manufacturers and third parties to provide additional drivers for NEXTSTEP for Intel Processors.

Developers interested in becoming a registered driver developer, should contact NeXT Developer Relations (1-800-TRY-NeXT) and join the registered developer program.

Other Devices and Adapters

ADDITIONAL DEVICE SUPPORT LEGEND

Device Type	Vendor	Model	Expansion Bus/Interface	Features	Driver Name	Avail.	NA #	Approved

DEVICE TYPE — Class of device or adapter supported.

VENDOR — Vendor, manufacturer, or system provider of the supported device or adapter.

MODEL — Model number or name of the supported device or adapter.

EXPANSION BUS/ INTERFACE — Expansion Bus or Interface used by this device: CPU Board (built onto the systems CPU board), LocalBus, VL-Bus (VESA Standard LocalBus), PCI, ISA, or EISA. Note: EISA expansion bus slots are compatible with ISA adapters.

FEATURES — Features of the device, or class of devices. This includes additional capabilities and/or protocols supported by this device or adapter. It also includes any limitations of the use of the device.

DRIVER NAME — Name of driver used by NEXTSTEP's Configure application.

NA # — NeXTAnswer Document Number providing detailed setup and configuration information.

APPROVED — An add-on adapter or peripheral is said to be *approved* when it has been tested as a component of one or more NeXT certified configurations. Note that one piece of approved hardware may be incompatible with another; to ensure compatibility, chose a certified configuration and review any available NeXTAnswers.

Other Devices and Adapters

ADDITIONAL DEVICE SUPPORT PRODUCTS

Device Type refer to footnote below 1	Vendor	Model	Expansion Bus/Interface	Features	Driver Name	Avail.	NA #	Approved
FLOPPY DISK		3.5in 1.44MB Floppy			Floppy Disk Controller	CD-ROM		
IDE HARD DISK INTERFACE		IDE			IDE Disk Controller	CD-ROM		
	Maxtor, Conner	Maxtor Model No's 7135A 135 MB 7270A 270 MB 7273A 270 MB 7405A 405 MB 7540A 540 MB 7546A 540 MB		Update to support Adaptec 8265	IDE8265Driver	Nxt Ans.	1693 1694	**BETA**
SCSI HARD DISK INTERFACE	Adaptec	1540 B, C or CF	ISA		Adaptec 1542B	CD-ROM 1520, 1521-update	1107 - B 1108 - C	**YES**
		1542 B, C or CF	ISA	Includes a floppy controller.	Adaptec 1542B	CD-ROM 1520, 1521-update	1107 - B 1108 - C	**YES**
		1740	EISA	Supported in 1540 compatibility mode only	Adaptec 1542B	CD-ROM 1520, 1521-update	1475	**YES**
		1742	EISA	Includes a floppy controller. Supported in 1540 compatability mode only	Adaptec 1542B	CD-ROM 1520, 1521-update	1475	**YES**
		274x/284x	EISA VL-Bus	The 2742 has a floppy drive interface	Adaptec 2740 Adaptec 2742 (floppy) Adaptec 2840	Nxt Ans.	1691 1692	BETA
		2940	PCI	This will be a NEXTSTEP 3.3 driver ONLY	Adaptec 2940	Planned Q494		3.3
		6x60	EISA		Adaptec 6x60	NeXTAns.	1675 1676	YES
		7770	EISA		Adaptec 7770	Planned		

1. When considering a complete system or add-on card, please refer to any available NeXTanswers before purchasing equipment.

Note: Floppy controllers on add-on SCSI adapters are not currently supported.

Other Devices and Adapters

ADDITIONAL DEVICE SUPPORT PRODUCTS (CONTINUED)

Device Type refer to footnote below 1	Vendor	Model	Expansion Bus/Interface	Features	Driver Name	Avail.	NA #	Approved
	Bus Logic	542B	ISA		Adaptec 1542B	CD-ROM 1520, 1521-update	1362	**YES**
		747S	EISA		Adaptec 1542B	CD-ROM 1520, 1521-update	1118	**YES**
		445S	VL-Bus		Adaptec 1542B	1520, 1521-update		**YES**
		44xC	VL-Bus, ISA, EISA	PCI support will not be availble until NS 3.3	Bus Logic 44xC	Nxt. Ans	1685 1686	**YES**
	DPT	2021/90	ISA	1MB-64MB Cache upgradable.	DPT 2012-B EISA	CD-ROM	1476	**YES**
		2021/95	ISA	1MB-64MB Cache upgradable. Includes a floppy controller.	DPT 2012-B EISA	CD-ROM	1476	**YES**
		2012/90	EISA	512K-16.5MB Cache upgradable.	DPT 2012-B EISA	CD-ROM	1358	**YES**
		2012/95	EISA	512K-16.5MB Cache upgradable. Includes a floppy controller.	DPT 2012-B EISA	CD-ROM	1358	**YES**
		2022 /90	EISA	1MB-64MB Cache upgradable.	DPT 2012-B EISA	CD-ROM	1457	**YES**
		2022 /95	EISA	1MB-64MB Cache upgradable. Includes a floppy controller.	DPT 2012-B EISA	CD-ROM	1457	**YES**
		2122/90	EISA	1MB-64MB Cache upgradable	DPT 2012-B EISA	CD-ROM		**YES**
		2122 /95	EISA	512K-16.5MB Cache upgradable. Includes a floppy controller.	DPT 2012-B EISA	CD-ROM		**YES**
		2000 Series Driver Update	EISA		DPT 2000	Nxt. Ans.	1625 1626	**YES**
		3xxx	PCI	will be available for NS 3.3 ONLY		Planned Q494		
	NCR	8xx	PCI			Planned Q494		
SCSI TAPE		SCSI Tape			SCSI Tape Driver	CD-ROM		
PARALLEL PORT		Standard Parallel Port			On-Board Parallel Port	CD-ROM	1330	
SERIAL PORTS		Standard Serial Ports		Supports COM1 & COM2	On-Board Serial Ports	CD-ROM	1208	

1. When considering a complete system or add-on card, please refer to any available NeXTanswers before purchasing equipment.

Other Devices and Adapters (continued)

Device Type refer to footnote below 1	Vendor	Model	Expansion Bus/Interface	Features	Driver Name	Avail.	NA #	Approved
LOCAL AREA NETWORK ADAPTERS	3COM	EtherLink III (3C509)	ISA	Thick and Thin Ethernet, and twisted pair support	3COM EtherLink III Ethernet Adapter	CD-ROM	1482	YES
		EtherLink III(3C579)	EISA	Thick and Thin Ethernet and Twisted Pair support	3COM EtherLink III Ethernet Adapter	Nxt. Ans	1653, 1654	YES
	Cogent	EM935, EM932	EISA	Thick coax and thin coax, and thick coax and twisted pair cabling	Cogent EM935, EM932	NXT Ans	1564, 1565	YES
		EM960	PCI	32-bit	CogentEM960	Beta Avail.	1667,1668	BETA
		PCMCIA	PCMCIA	NEXTSTEP 3.3 ONLY		Planned Q494		
	SMC	EtherCard PLUS Elite 16 (8013)	ISA	Thick and Thin Ethernet and Twisted Pair support	SMC 16 Ethernet Adapter	CD-ROM	1110	YES
		SMC EtherCard Elilte Ultra16	ISA			Planned Q4		
	Canon	AMDPCnet-32	Local Bus	Twisted Pair support, thick and thin ethernet	AMDPCnet32_ NetworkDrivewr	NXT Ans	1687 1688	YES
	HP	Vectra XP and XM	ISA	HP Vectra XP and XM support of AMD 79C960 chipset	HPVectra_XM_XP_LANDriver	NXT Ans	1623, 1624	YES
	Intel	EtherExpress 16 (TP, Coax or Combo)	ISA	Ethernet Coax or Twisted Pair	Intel EtherExpress Ethernet Adapter	CD-ROM	1206	YES
		Intel TokenExpress ISA Token Ring Adapter Update	ISA	Token Ring	Intel TokenExpress ISA Token Ring Adapter UPDATE	NXTAns	1613 1614	YES
		Intel Ether Express Flash 32	EISA	32-bit Bus Master EISA		Planned		
		Intel EtherExpress PRO	ISA	16-bit Bus Master ISA adapter		Planned		
		Intel EtherExpress PRO/100	EISA PCI	10/100 Mbps fast Ethernet PCI and EISA adapters. Fast Ethernet requires special hub.		Planned		
	IBM	Token-Ring 16/4 Adapter	ISA	16/4 Mbps 8 bit I/O 64k Buffer Share RAM	IBM Token-Ring 16/4 Adapter	NXT Ans	1515 1523 1524	YES
POINTING DEVICES	Microsoft	MS Mouse or Compatible	Serial or PS/2 Mouse Port		Serial Mouse or PS/2-Style Mouse	CD-ROM	1360	YES
	Logitech	Mouse Man (Right or Left)	Serial or PS/2 Mouse Port		Serial Mouse or PS/2-Style Mouse	CD-ROM	1360	YES
		Mouse Man Bus	Bus Mouse Adapter		Bus Mouse	CD-ROM	1360	YES
		PS2 Keyboard and Mouse		UPDATE to support newer Logitech Mouse		BETA	1669 1670	3.2 BETA

Other Devices and Adapters (continued)

Device Type refer to footnote below 1	Vendor	Model	Expansion Bus/Interface	Features	Driver Name	Avail.	NA #	Approved
AUDIO DEVICES	Media Vision	ProAudio Spectrum 16	ISA	Up to CD Quality Stereo Record & Playback	ProAudioSpectrum 16	CD-ROM	1158	YES
		Pro Studio 16	ISA	Up to CD Quality Stereo Record & Playback	ProAudioSpectrum 16	CD-ROM		YES
		Jazz				Under Considera-tion		
	Creative Labs	SoundBlaster 16	EISA, ISA	NEXTSTEP 3.2 Beta ONLY	SoundBlaster 16	Planned Q4 94	1695 1696	Beta
	Intel	GX/Professional CPU-Board Audio Support	CPU Board	Up to CD Quality Stereo Record & Playback	IntelGXAudio	Nxt Ans. UPDATE	1651, 1652	YES
	Compaq	Business Audio	CPU Board	Up to CD Quality Stereo Record & Playback		CD-ROM		YES
	Microsoft	Sound System	ISA	Up to CD Quality Stereo Record & Playback		CD-ROM	1471	YES
	Canon Sound Driver		LocalBus			Nxt Ans	1689 1690	YES
	Various	Standard PC Speaker Support	CPU Board	System Audio Alerts only	System Beep Driver	CD-ROM		YES
PRINTERS	NeXT	NeXT Color Printer	SCSI					YES
	Various	Standard Adobe PostScript Printers	Serial or Parallel					
CD-ROM DRIVES	NEC	CDR-74	External					YES
	NeXT	Sony-541	External					YES
TAPE BACKUPS	Archive	Viper 150		QIC, 512-byte blocks				YES
	Archive	Python		DAT, 512-byte blocks				YES