



# NeXTSTEP RELEASE 3



*NeXTstep Release 3 adds database access, extensive connectivity, and information linking to the powerful, object-oriented NeXTstep architecture.*

Over the past three years, NeXTstep™ has proven to be the premier graphical user interface and development environment for delivering powerful, integrated applications. Its object-oriented architecture not only makes creating custom applications easy, but also allows for quicker delivery of significant new system software features. Here are the highlights of our new release:

The object-oriented Database Kit™ (DBKIT) dramatically reduces the effort required to design, implement, and maintain NeXTstep database applications. Additions of Novell® and AppleTalk® networking, along with Macintosh® disk access, allow users to share data with MS-DOS®, OS/2®, Windows,™ Macintosh, and UNIX® computers. And NeXTlinks™, an information linking system, empowers workgroups to share dynamic information which is updated automatically.

In addition, Release 3 provides enhancements in areas such as secure wide-area electronic mail and professional color. Best of all, NeXTstep's fundamental object-oriented architecture lets Release 2 applications automatically take advantage of many new Release 3 features. And because object-orientation means innovation happens more rapidly, NeXTstep will continue to be the premier operating environment available.

# NEW FEATURES AND BENEFITS

PC and Macintosh connectivity	Novell client and AppleTalk client capabilities for file and printer access. Macintosh and MS-DOS file system compatibility.	Provides connectivity in heterogeneous environments. Preserves your current investment in networks of PCs while you transition to NeXT™ computers.
NeXTlinks	A means of sharing information between documents such that changes made in one are automatically reflected in the other. Available in Release 3-compliant applications.	Makes it easy for workgroups to produce a collaborative document by streamlining the revision process. Provides assurance that the information with which you are working is the most current.
On-line help	Context-sensitive with hyperlinks and graphics. A standard panel for every application. Available in Release 3-compliant applications.	Offers instant assistance for anything you click on. Lets you learn how to use an application as you work, without stopping for training.
PostScript® Level 2	Includes color in the device-independent PostScript imaging model. Compatible with PostScript Level 1.	Assures you that colors you see on the screen are what you get on the NeXT Color Printer and other PostScript printers (to the best of their physical capabilities). Automatically allows NeXT printers to take advantage of the newest PostScript release.
ISDN Networking	High speed voice and data transmission over digital ISDN lines in the US. Requires an ISDN line addaptor.	Allows you to remotely operate in your usual graphical computing environment ( as opposed to character-based operation).
PANTONE® Colors	Available to every application through the standard Color Panel.	Allows you to use industry-standard colors in any application without additional cost.
Fax	Uses a network-shareable fax modem for sending and receiving. Available in every application.	Permits any user on a network to send and receive faxes from the desktop. Produces high-quality faxes due to PostScript rendering.
Multimedia compression	Lempel-Ziv for text, Audio Transform Coding for sound, JPEG for TIFF graphics, and Group 4 for faxes. Integrated into the NeXTstep environment.	Lets you store on average two to ten times as much media-rich information on your hard and floppy disks.
Diverse printer support	Support for NeXT, PostScript, and several non-PostScript printers (e.g., Epson® LQ510). Allows altering of printer-specific parameters (e.g., alternate paper tray)	Lets you use a printer that fits your budget and quality guidelines without requiring extra software or hardware.
Customizable user environment	Preferences for screen background colors, system fonts, language preferences, and more.	Lets you tailor your computing environment to fit your personal style and needs, independent of which NeXTstep computer you use on the network.
Global system software	NeXTstep available in English, French, German, Spanish, Italian, Swedish, and Japanese.	Everything you see and hear can be in your native language. You can switch your environment to another language very easily.
Compatibility with previous releases	Binary compatibility with NeXTstep Release 2 applications.	Lets you run existing applications, which are automatically enhanced by many new features in Release 3. Preserves and enhances your investment in software, hardware, on-line information, and training.

# NEW FEATURES AND BENEFITS

## ESPECIALLY FOR APPLICATION DEVELOPERS...

Database Kit	An object-oriented toolkit for management of database transactions and their user interface. A database-independent layer. "Adapters" encapsulate vendor-specific interaction (bundled for Oracle® and SYBASE®).	Extends the power of object-oriented programming to data-intensive applications. Radically reduces the time required to design and implement graphical applications that interact with databases. Allows the migration of applications to different databases without recoding user-interface and application logic.
3D Graphics Kit™	Based on Pixar's RenderMan™ standard. A unified 3D imaging model, so the same code draws objects on both the screen and the printed page. Cooperates with 2D PostScript.	Lets developers easily add three-dimensional graphics to existing applications without being a 3D expert. Provides the necessary object and rendering framework for building sophisticated 3D applications.
Distributed objects	Messaging to objects on other computers or in other applications. Integrated with Objective C.	Extends the power of object-oriented programming to interapplication and intercomputer communication. Enables a new generation of collaborative workgroup applications.
Interface Builder™	A graphical object editor for building applications. Support for DBKit, on-line help, and localization. Enhanced support for inspectors and palettes of custom objects.	Helps you develop, test, and maintain consistent graphical user interfaces for NeXTstep applications. Lets you tailor your development environment to include custom and commercial objects.
Indexing Kit	Tools for efficiently storing, indexing, and retrieving record-based information.	Allows developers to manage large amounts of structured information without the complexity of a commercial database.
Phone Kit	Object classes interfacing with analog telephone service and ISDN.	Enables a new generation of applications utilizing telephony capabilities to be quickly and easily developed.

# PRODUCT DETAILS

## ESSENTIAL APPLICATIONS

**Workspace Manager™**  
A graphical environment for managing the documents and applications on the computer.

**NeXTmail**  
A sophisticated electronic messaging system for sharing text, sound, and graphics among network users.

**Edit**  
A mouse-based text editor for creating and editing ASCII or Rich Text Format (RTF) text files.

**FaxReader**  
An application for reading incoming fax documents across a network. Used in conjunction with third-party fax modems.

**Preferences**  
A graphical interface for changing personal preferences.

**Digital Webster™**  
An application providing access to *Webster's Ninth New Collegiate Dictionary®* and *Collegiate® Thesaurus*.

**Installer**  
A standardized tool for installing applications or files onto the hard disk.

**Digital Librarian™**  
A full text indexing and searching tool for creating custom digital libraries.

**Preview**  
An application which displays PostScript and TIFF files, before printing for example.

**Terminal**  
A VT100™ terminal emulator that provides direct interaction with a UNIX shell.

**IN EVERY APPLICATION**

**Help Panel**  
A consistent, context-sensitive, hypertext-based, on-line help system.

**Color Panel**  
A standard interface for choosing colors.

**Fax Panel**  
An extension of the Print Panel allowing the faxing of any document which can be printed.

**Services**  
A facility enabling an application to utilize another application's algorithms to manipulate a standard data type.

**NeXTlinks**  
A special type of copying which associates the pasted data with its original, and keeps the copy updated automatically.

**Font Panel**  
A standard interface for selecting a PostScript font for text in a document.

**Spelling Panel**  
A facility providing spell checking, allowing for end-user dictionaries.

**Open/Save/Print Panels**  
Standard interfaces for opening, saving, and printing documents.

## ADVANCED APPLICATIONS

**Interface Builder**  
An application that lets developers edit objects via their graphical representations to interactively build NeXTstep applications.

**ProjectBuilder**  
A tool for managing the files, class definitions and compilation process associated with software projects.

**GNU Objective C++ compiler**  
The GNU CC compiler, an ANSI-standard C++ compiler extended by NeXT to compile the Objective C language.

**GNU GDB**  
A powerful, source-level debugger integrated with the Edit application.

**Malloc Debugger**  
A tool for measuring the dynamic memory usage of applications, useful in detecting memory leaks.

**AppInspector™**  
A graphical tool for browsing the object class hierarchy and viewing messages sent between objects.

**ProcessMonitor**  
A graphical tool for examining and manipulating any running process.

**Yap**  
An interactive PostScript previewer which lets users enter and execute PostScript code.

**T<sub>E</sub>X™**  
A typesetting system for long or complex technical documents.

**IconBuilder**  
A simple pixel-based editor for generating custom icons.

**Shakespeare**  
Indexed, on-line text of The Oxford University Press Edition of *William Shakespeare: The Complete Works*.

**Quotations**  
An application providing access to *The Oxford® Dictionary of Quotations*.

## OBJECT-ORIENTED KITS

**Application Kit™**  
A framework for all NeXTstep applications which includes object classes for everything from editing text and managing windows to interacting with the pasteboard.

**Database Kit**  
A toolkit enabling vendor-independent access to databases, along with management and control of database transactions.

**3D Graphics Kit**  
A framework including objects for integrated three-dimensional graphics applications, along with multithread rendering.

**Indexing Kit**  
A toolkit for managing large amounts of structured information in a lightweight, consistent fashion ( includes B\* Tree structures for efficient indexing).

**Phone Kit**  
Object classes controlling and accessing both ISDN and analog telephone lines for voice

# PRODUCT DETAILS

and data applications. Used in conjunction with a third-party ISDN/analog line hardware adapter.

## Sound Kit™

Object classes that access the hardware for recording and playback of sound.

## NetInfo Kit™

Object classes providing access to NetInfo database information.

## SYSTEM SOFTWARE

### Mach

The Berkeley 4.3 BSD UNIX compatible operating system of NeXTstep, containing a small and efficient communication-based kernel which provides virtual memory and true multitasking.

### Window Server

Screen manager capable of rendering Display PostScript® Level 2 and version 3.2 of Interactive and Photorealistic RenderMan.™

### Sun® Network File System (NFS®) 4.0

Networking software allowing any NeXT computer to be a client or server to any other computer running NFS.

### NetInfo™

A hierarchical and distributed database for maintaining network administration.

### Novell Client

Novell NetWare® client software integrated with the UNIX file system, providing access to NetWare 286, NetWare 386, and Portable NetWare servers for file sharing and printing.

### AppleTalk Client

AppleTalk client software integrated with the UNIX file system, providing connectivity to

Ethernet-based Apple® networks for file sharing and printing.

### Ethernet networking

IEEE 802.3a networking software permitting transparent data sharing over thin coaxial Ethernet cable and 10baseT twisted pair Ethernet cabling.

### CD-ROM file system

A dynamically-loaded file system that supports CDs formatted with the ISO-9660, High Sierra, and Rockridge standards.

### DOS file system

A dynamically-loaded file system integrated with the Workspace supporting initialization, reading, and writing of DOS floppy disks for easy file transfers.

### Macintosh file system

A dynamically-loaded file system integrated with the Workspace which supports the initialization, reading, and writing of Macintosh disks (1.44 MB floppy and SCSI-based hard disks, along with CD-ROMs).

### MIDI driver

A driver supporting electronic musical instruments abiding by the MIDI protocol.

### Printer drivers

Drivers for NeXT and PostScript printers, as well as Epson LQ510

### SCSI driver

A driver allowing users to plug in almost any hardware peripheral adhering to the SCSI-1 protocol.

### Fax driver

A driver for sending and receiving facsimile documents. Requires a third-party fax

modem.

## SYSTEM ADMINISTRATION APPLICATIONS

### Simple Network Starter

A simple but powerful tool for setting up small networks of NeXT computers.

### UserManager

A tool for adding, modifying, and deleting both user accounts and user groups.

### PrintManager

A tool for adding printers or fax modems, and monitoring the progress of print and fax requests.

### NFS Manager

A tool for exporting and mounting NFS volumes.

### HostManager

A tool for configuring the administrative information of individual computers.

### InstallTablet

A tool for installing Sketch1 or Wacom graphics tablets.

### MailManager

A tool used to set up electronic mail on networks of NeXT computers.

### NetInfo Manager

A graphical tool for accessing and manipulating a computer's NetInfo database.

### BuildDisk

A tool for reformatting a disk and reinstalling software from another disk.

## MISCELLANEOUS

### Upgrader

A network-based application for

upgrading Release 2 computers to Release 3 while preserving user data and configuration files.

### Localized system software

The user interface for English, French, German, Spanish, Italian, and Swedish versions of NeXTstep.

### Demonstration applications

Several simple applications showcasing NeXTstep functionality.

### Examples

Programming examples demonstrating the usage of the NeXTstep API.

### Developer documentation

Information indexed in Digital Librarian on the NeXTstep development environment and object specifications.

### System administration documentation

Indexed information describing NeXTstep system administration.

### UNIX manual pages

Indexed information on supported UNIX utilities.

### SYBASE DB-Library™

All utilities needed by DBKit to access SYBASE databases.

### Oracle Call Interface, SQL\*Net®

All utilities needed by DBKit to access Oracle databases.

# SYSTEM REQUIREMENTS

NeXTstep Release 3 will run on any NeXT computer with a minimum of a 100 MB hard disk and 8 MB of RAM. Every NeXT computer comes with a CD-ROM containing all NeXTstep software of a given release. The software configuration preinstalled at the

factory depends on hard disk size.

Release 3, preinstalled on NeXT computers with 100 MB- and 200 MB-class hard disks, encompasses the entire end-user software environment. It contains the essential applications, runtime portions of the object-

oriented kits, all system software, system administration applications, and assorted other software.

Release 3 Extended, preinstalled on NeXT computers with 400 MB-, 600 MB-, and Gigabyte-class hard disks, includes a

complete set of development tools. It contains all software in Release 3, the advanced applications, the complete object-oriented kits, and all miscellaneous software.

# ORDERING INFORMATION

All NeXT computers will come with NeXTstep Release 3 (when the new release is available).

To upgrade a NeXT computer running Release 2, order one of the following two products:

NeXTstep Release 3 on floppy disk  
USA and Europe  
N5528

NeXTstep Release 3 on CD-ROM  
(Extended configuration)  
USA and Europe  
N5527

## For additional information, call 1-800-TRY-NeXT

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