What's New in Release 3.2?

NeXT Product Marketing

Release 3.2 offers a variety of enhancements for users and developers. This article gives a brief   overview of what's new.

More fun in the new world

The versions of NEXTSTEP and NEXTSTEP Developer released at this May's NeXTWORLD Expo   were mature software productsÐbut they were also brand new. NEXTSTEP Release 3.1 for NeXT Computers was the *second* version of the *third* generation of NEXTSTEP, the fruit of over eight years of development. But while NEXTSTEP Release 3.1 for Intel Processors was based on the same mature technology, it was the first release of NEXTSTEP for the Intel i486® and Pentium™ families of processors.

So the blueprints for the follow-up release of NEXTSTEP had two obvious goalsÐplus a kicker. The first goal was to expand on the foundation of Release 3 technology. The second was to widen and improve support for Intel-based PCs. And the kicker was to roll out Insignia Solution's first version of SoftPC to run DOS and Windows applications within a UNIX® environment: NEXTSTEP Release 3.2 for Intel Processors.

What's new for users

The user version of Release 3.2 includes the *NEXTSTEP* CD-ROM, a floppy disk with installation software, and the award-winning NEXTSTEP user documentation: *User's Guide*,

Here's How, *Installing and Configuring NEXTSTEP Release 3.2 for Intel Processors*, and *Upgrading to Release 3.2*.

Quality

Because the first goal for Release 3.2 was to add quality and features to an already solid product, NeXT sought the advice of people like you: NEXTSTEP users. The result was a prioritized list of over 500 bugs that have been fixed in Release 3.2. You'll find new on-line help in the Print Manager application and in the developer mode of the Edit applicationÐin addition to the existing help in Edit's user mode.

Widening support for Intel-based PCs

The software for installing and configuring NEXTSTEP on Intel-based PCs has been rewritten from the ground up. For the first time you can load the device driver you need to install NEXTSTEP during installationÐeven if the driver for your SCSI adapter or hard disk controller comes on a floppy disk. You can use the new version of the Upgrader application to upgrade your Intel-based computers from Release 3.1 to Release 3.2, with the same easy user interface NeXT computer users have enjoyed since Release 3.0. And the architecture is in place so that if you manage a large site, you'll soon be able to install NEXTSTEP from a network server (with tools NeXT will release after Release 3.2 ships).

All the device drivers bundled with NEXTSTEP for Intel Processors have been rewritten, so they're more reliable and have many new features. There are several new audio drivers in Release 3.2, for Compaq® Business Audio, the Microsoft Sound System, and the Intel GX/Professional on-board sound system. Support for 32-bit display drivers has been expanded to include more RAMDACs and resolutions for the ATI Graphics Ultra Pro and S3 805 device drivers, as well as support for the S3 928. And you'll find it easier to take advantage of these features with the new version of Configure.

SoftPC

Perhaps the most eagerly awaited addition to Release 3.2 is the new version of SoftPC, which you can use to run your favorite DOS and Windows applications under NEXTSTEP. (See ªThe New SoftPCº in this issue).

A demonstration version of SoftPC is bundled on the *NEXTSTEP* CD-ROM. If you like what you see, you can unlock the demo into a full working version by calling Insignia Solutions and purchasing a license number.

What's new for developers

NEXTSTEP Developer Release 3.2 includes the *NEXTSTEP Developer* CD-ROM and all six printed volumes in the NEXTSTEP Developer's Library (which are also bundled on the CD-ROM).

Release 3.2 features major improvements to the Header Viewer and Project Builder applications, a new demonstration application called File Merge, improvements to the GDB debugger and C++ support, as well as the same kinds of quality-inspired bug fixes and performance enhancements as you'll find in the user version of NEXTSTEP.

Changes to Header Viewer

The two most noticeable improvements to the Header Viewer application are the new Update command and the Kit Filter preference setting.

When you create a new version of precompiled headers, you can use Header Viewer's new Update command to reload themÐwithout having to quit and restart Header Viewer. You'll find this particularly useful if you work with dynamically changing object libraries.

You can control how much information appears when you're browsing a kit with Header Viewer's new Kit Filter preference setting. You can use it to filter out object classes that aren't directly defined by the kit you're browsing. For example, if you're browsing the Database Kit™, you can view just the Database Kit object classes and screen out the Application Kit™ object classes.

These and the rest of Header Viewer's features are described in the complete on-line documentation, included for the first time in Release 3.2.

Changes to Project Builder

The new version of Project Builder includes more powerful searching tools, new support for building distributed objects (DO) and portable distributed objects (PDO), and improved bundle support.

You can find all instances of a word or string in files that live in different project categories with Finder Mode, a new view option in the Project Builder main window. For example, you

can search for a word or string in both the object header and implementation files within a project.

With Project Builder's new Tools project type, you can build programs that aren't dependent on the NEXTSTEP graphical user interface, so they don't use standard Application Kit event-loop processing. This means you can build object services that run on a network and can be accessed by client applications through distributed objects and portable distributed objects. You can also use this feature to build standard UNIX command-line programs that don't interact with the Window Server.

The new version of Project Builder can communicate via portable distributed objects with non-NEXTSTEP computers, so you can build objects and applications in the target environment remotely, from your local NEXTSTEP computer. (Of course, you've always been able to build objects and applications remotely on NEXTSTEP computers.) This means you can build object services for servers from a NEXTSTEP client, using the same Project Builder facilities as you use for NEXTSTEP applications.

If you create applications that use bundles, you'll appreciate Project Builder's increased support for modifying their attributes. For example, you're no longer limited to just the **.bundle** extensionÐyou can now create extensions unique to your application.

A new demo: File Merge

File Merge appears for the first time in Release 3.2. Since it's a work in progress, it's included as a demonstration application for now, but it will become a fully supported application in a future release.

File Merge is a graphical tool for comparing two files or directories. You can see at a glance which lines or files have been added, deleted, or modified. You can also merge two files into a new file, using the mouse to select which lines in the originals you want to include. For example, you can use File Merge to see immediately what's changed in different source branches. Then you can merge the changes with a few clicks of the mouse.

Other enhancements for developers

One feature dropped in NEXTSTEP Developer Release 3.1 was GDB data breakpoints, because the implementation in Release 3.0 was platform dependent. A platform-independent implementation has been added in Release 3.2Ðand it's actually more accurate than the earlier, platform-dependent version.

You'll find the GNU ++ library and matching on-line documentation in Release 3.2. And for the first time the GNU sources are included on the *NEXTSTEP Developer* CD-ROM.

What else is new?

This article only summarizes the new features you'll find in NEXTSTEP and NEXTSTEP Developer Release 3.2. Be sure to read your release notes for details. And let us know what you think!

You can find out more about NEXTSTEP by calling 1-800-848-NeXT within the U.S., or by calling your local NeXT representative.