Apple Enterprise Tech Support Frequently Asked Questions

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Introduction

Welcome to *Tech Support Frequently Asked Questions* (FAQ).   This document is updated regularly to reflect Apple EnterpriseTechnical Support's most commonly asked technical questions.   You can use this document as a quick reference guide for issues that may or may not be found in NeXT documentation or otherwise be readily available.

When additional sources of information are available about a topic they are indicated in the **See Also:** section.   Much of the information in this document is expanded upon in other NeXTanswers documents and in the on-line and printed OPENSTEP documentation.

When you are required to type a command, the text that you need to type is denoted by the `bold` typeface.

We regularly update this document based on questions most frequently asked of the Apple Enterpise technical support group.   We welcome comments and suggestions.   You can contact Technical Support via phone by calling (800) 955-6398 or emailing **nextanswers-request@enterprise.apple.com**.

Contacting Apple Enterprise Technical Support by email

Q: Which email addresses does Apple Enterprise provide for customer use?

A: The following addresses can be used to reach specific groups in Apple Enterprise:

```
try_webobjects@enterprise.apple.com        Product Information and Sales (North America)
appleom@groups.apple.com  Registering products purchased from NeXT
appleom@groups.apple.com  Information about the status of your order
NeXTanswers@enterprise.apple.com Information about using NeXTanswers
support@enterprise.apple.com  Apple Enterprise Technical Support
```

NeXT hardware support

Q: Who do I contact about service for NeXT hardware.

A: Apple no longer provides support for NeXT-branded hardware.   For NeXT hardware support, please contact Deep Space Tech by sending email to **sales@deepspacetech.com**.

OPENSTEP supported systems

Q: Which HP PA-RISC, SPARC and Intel systems are supported by NEXTSTEP Release 3.3 and OPENSTEP 4.x, and how should they be configured?

A: See NeXTanswers documents:
      1002_4.x_Intel_Hardware_Compatibility_Guide.rtfd
      1843_4.x_and_3.3_Sparc_Compatibility_Guide.rtfd
      1844_3.3_HP_Compatibility_Guide.rtfd
      2450_3.3_Intel_Hardware_Compatibility_Guide.rtfd.

      Please be aware that NeXTSTEP version 3.3 is no longer supported in any configuration by Apple's Enterprise Support department.

      See also: NeXTanswer 1684_PA_RISC_Frequently_Asked_Questions.

World Wide Web for NEXTSTEP

Q: Does Apple Enterprise provide a World Wide Web page?

A: Yes!   The URL is http://enterprise.apple.com.   The page contains links to NeXTanswers, the Stepwise OPENSTEP Information Service, and other information about NeXT.

Q: Is there a World Wide Web browser such as NCSA Mosaic available for OPENSTEP?

A: There are at least three browsers available for NEXTSTEP and/or OPENSTEP for Mach.   Here's some info about each.

Netsurfer provides a commercial web browser of the same name.   The latest version is available from ftp://ftp.netsurfer.com/pub/next/Netsurfer/ . Their web site is http://www.netsurfer.com/

Omni Development provides a freeware WWW browser for NEXTSTEP and OPENSTEP called OmniWeb.   The latest version is available from ftp.omnigroup.com.   For for information, contact Omni Development at info@omnigroup.com.

Sen:te provides a freeware WWW browser called SpiderWoman.   The latest version is available from ftp://sente.epfl.ch/pub/software/SpiderWoman.app.tar.gz (ftp to sente.epfl.ch and get /pub/software/SpiderWoman.app.tar.gz) Information about Sen:te can be found at http://sente.epfl.ch/

Note: You need NEXTSTEP 3.2 or greater with **EOF 1.0** in order to run SpiderWoman.

Installing the Developer CD-ROM

Q: I've installed the User Version of OPENSTEP for Mach.   When I try to install the Developer disk, I get a permission denied error.   How do I install the Developer disk?

A: You need to be logged in as the **root** account to install the Developer disk.   If you're logged in as **me**, you need set a password and log back in as **root** to continue the installation.

Cleanly rebooting when something goes wrong

Q: When something goes wrong with my computer (for example, the cursor is frozen on screen or Workspace Manager doesn't start up.), how can I restart my computer without performing a hard reset and potentially damaging the disk's filesystem?

A: Hold down the right Alternate key and press the Num Lock key on the numeric keypad.   This should display a panel that lets you type either **h** to halt the computer or **r** to restart it.   This is an easy way to bypass the normal OPENSTEP shutdown and logout procedures and ensure that the disk's filesystem is not damaged.

Safely copying directories and filesystems

Q: What is an easy way to copy files, directories, or filesystems and retain file ownership, permissions, setuid modes and links?

A: The ditto command copies a source directory to a destination directory.   Ditto overwrites existing files, symbolic links, and devices in the destination when these are copied from a source. The resulting files, links, and devices will have the same mode, owner, and group as the source items from which they are copied. On the other, ditto does not modify the mode, owner, or group of existing directories in the destination.   Ditto can be used to "thin" multi-architecture binaries during a copy. Ditto can also copy files selectively based on the contents of a BOM ("Bill of Materials") file. Ditto preserves hardlinks present in the source directories and preserves setuid and setgid modes.   On a properly formatted disk, ditto can be used as a replacement for the BuildDisk program for building bootable OPENSTEP system disks.

See also: The ditto(8) UNIX manual page

Editing files in single-user mode

Q: My system won't boot into the Workspace, so I want to boot single-user by typing "-s" at the boot: prompt, then edit some OPENSTEP Mach configuration files.   How can I do this, since I can't use Edit.app from single-user mode?

A: We ship a number of common UNIX editors with OPENSTEP/Mach, including ed, emacs, ex, edit, and vi.   Unfortunately, some of these editors do not work well in single-user mode.   Some require better terminal support than is available in single-user mode; others try to write to /tmp, which isn't possible while booted from a read-only file system such as a CD-ROM; others are just plain unfriendly to the uninitiated.

Fortunately, the standard OPENSTEP distribution includes pico, a simple, display-oriented text editor which overcomes the above problems.   Here are the only commands you really need to know in order to edit a file using pico, some of which are displayed right at the bottom of the screen:

Ctrl-F: Move Forward a character
Ctrl-B: Move Backward a character

Ctrl-P: Move to the Previous line
Ctrl-N: Move to the Next line
Ctrl-D: Delete the character at the cursor position (or just use Backspace to delete the previous character)
Ctrl-X: Save the file and quit (press "y" and then Return to confirm the save)
Ctrl-G: Display help text listing the above commands and more

Normally, pico will also let you use the arrow keys to move around.   However, these keys haven't been mapped yet when you're in single-user mode, so you'll need to use the Control-key combinations above.   Similarly, you may be used to a keymapping that uses a different key (such as the Caps Lock key) as the Control key.   This mapping hasn't happened yet either in single-user mode, so the Control key is in fact the Control key.

See also: The pico(1) UNIX manual page

Mouse does not work after installation

Q: When I reboot my computer and the login window is displayed, everything appears fine except that I can't use the mouse--the cursor seems to be frozen or not responding.   I can still type, though.   What's wrong?

A: When you install OPENSTEP for Mach, you need to tell the operating system about specific hardware such as the mouse, graphics adapters, and SCSI adapters (i.e., which drivers should be used).   The installation software loads in and uses all available mouse drivers.   Thus, during installation, whatever mouse you are using should work with one of these drivers.   You need to specify which mouse driver OPENSTEP should load upon starting up.   For example, if you have a serial mouse, this means selecting and installing the serial mouse driver.   If you forget to do this during the installation, when you restart OPENSTEP after the installation the mouse won't work.

To configure OPENSTEP to use a different mouse driver, you need to restart the computer using the default driver setup.   At the **boot:** prompt type:

    boot: `config=Default`

This starts up OPENSTEP with all of the mouse drivers loaded.   Log in as **root** and start up Configure located in **/NextAdmin**.   Select the mouse and configure the mouse according to your hardware setup.   Remember to type the capital D in Default!

Note: config=Default should be used whenever there is a specific hardware-related failure (as may be caused by adding or removing a peripheral).   This causes NEXTSTEP to start up with a basic default configuration and allows modification of the hardware configuration with the Configure.

See Also: NeXTanswer 1360_Mouse_Support

Simple NetInfo problems

Q: When I start up OPENSTEP, I get a message indicating "cannot connect to network, press Control-C to continue."   I believe this is because NetInfo is improperly configured or corrupted.   What can I do to start up my system?

A: This problem can have a variety of causes.   Two possibilities are that the NetInfo database has been corrupted or the network interface card has been removed.

One solution is to rebuild the NetInfo database to a default configuration.   First, start up the computer in single-user mode:

```
boot: mach_kernel -s    (on Intel hardware)
NeXT> bsd -s            (on NeXT hardware)
```
      Note: To get to the ROM Monitor (NeXT> prompt) during power up, hold   down both Command keys and press the tilde key on the keypad.   This   will bring up the NeXT ROM Monitor.

The computer starts up to the single-user UNIX command line.   Next, at the command line type these commands to copy a new NetInfo database and new **hostconfig** file.

```
# cp -rp /usr/template/client/etc/netinfo /etc
```

```
# cp -p /usr/template/client/etc/hostconfig /etc
```

```
# cp -p /usr/template/client/etc/hosts /etc
```

This sets your computer back to a default NetInfo configuration as it was when you first installed OPENSTEP.   You can then use SimpleNetworkStarter in **/NextAdmin** to reconfigure the computer.

Warning: Creating a new NetInfo database may be a drastic measure under certain circumstances.   If you've invested a lot of time configuring a NetInfo database, you probably would want rebuild it from scratch only as a last resort.   If you feel this is your situation, ask an experienced NetInfo system administration expert for help before replacing the database.   A better choice might be to restore the **/etc/hostconfig** file and the contents of **/etc/netinfo** from backups made when the network was functioning properly. (You *did* make backups, *didn't* you?).

See Also: *NEXTSTEP Network and System Administration*, page 89 and NeXTanswer document 1295_restoring_to_default_netinfo_configuration

Removing the OPENSTEP boot sector

Q: How can I remove the OPENSTEP boot sector?   I installed OPENSTEP on my hard drive and removed it, but I still get "Boot Next: v1.*xx*" when starting up.

A: OPENSTEP provides two boot sectors: boot0 which boots a DOS partitioned disk that may or may not have OPENSTEP on it and boot1 which boots a virtual OPENSTEP disk, whether it is located at the beginning of a disk or is on a partition.   If you install a disk with only OPENSTEP, only the boot1 sector is written at the beginning of the disk.   If you then want to go back and install DOS, DOS finds executable code in the boot sector but doesn't replace it, even though that code is incapable of booting DOS.   The solution is to either remove the boot sector before installing DOS, or rewrite the boot sector from DOS.

In NEXTSTEP, before installing DOS type:

```
# fdisk /dev/rsd0h -removePartitioning
```

Or, in DOS, after installing DOS type:

C: `fdisk /mbr`

Note: This technique is only useful if you're changing a disk from OPENSTEP-only to one that also includes a DOS partition. The OPENSTEP installation process always writes the boot sectors required for OPENSTEP. Also, our boot0 sector is fully compatible with MS-DOS's and boots any operating system on a partition.

See Also: The fdisk(8) UNIX manual page and NeXTanswer document 1130_Surviving_DOS

Replacing the OPENSTEP boot sector

Q: My OPENSTEP PC doesn't display the prompt 'Press n for NEXTSTEP, d for DOS' when the system starts up, even though my disk has both DOS and OPENSTEP partitions. How can I fix the disk so I can boot from either partition?

A: Somehow the boot sector for the disk became corrupted or was removed. You need to replace it. Often this is caused by installing DOS 6.*x* or Windows95. If you can't boot into OPENSTEP at all, you will have to use your OPENSTEP boot floppy and CD to issue this command in single user mode.

As the user **root**, or in single-user mode, type this command in a Terminal window:

`disk -B0 /usr/standalone/i386/boot0 /dev/rsd0a`

If you're using an IDE disk, substitute **/dev/rhd0a** for **/dev/rsd0a**.

Note: You must execute this command as **root**. Incorrectly typing this command can have serious repercussions. Use caution when logged in as **root**.

See also: NeXTanswer 1487_Intel_Boot_Process for details on booting. The fdisk(8) UNIX manual page and NeXTanswer

Problems with DOS Version 6.x, Windows95 and OPENSTEP

Q: I am having problems installing DOS 6.*x* or Windows95 on a disk that has the OPENSTEP boot sector already installed.

A: After installing DOS 6 or Windows95, the default partition will be set to the DOS partition. Thus if you take no action after the "n for nextstep, d for dos" prompt, the machine will boot into DOS, not OPENSTEP. This can be fixed by resetting the active partition to the OPENSTEP partition, using DOS's or our fdisk. Typing n will still boot to OPENSTEP.

Q: After upgrading to DOS 6.2 or Windows95, upon bootup, the "n for nextstep, d for dos" prompt does not appear and the system boots up into DOS.

A: DOS 6.2 and Windows95 kindly removes our booter.   You can replace the boot sector by following the instructions under "Replacing the OPENSTEP Boot Sector" above.

CD-ROM drives and CDPlayer

Q: How do I get CDPlayer, located in /NextDeveloper/Demos, to play music CD's on my CD-ROM Drive?

A: See NeXTanswer document 1579_CDPlayer_Troubleshooting

Faxing in OPENSTEP

Q: What is necessary to do faxing in NEXTSTEP?   I've installed a modem and tried to fax, but it's not faxing.

A: OPENSTEP requires an additional fax driver specifically written for your fax modem.   The following product offers support for a variety of common fax modems, such as ZyXEL, SupraFAXmodem, Telebit, and Prometheus:

NXFax

Black & White Software, Inc.
(802) 496-8500 voice
(802) 496-5112 fax
nxfax@bandw.com

See Also: *Third Party Products Guide*

Macintosh networking and OPENSTEP

Q: I want to network a machine running OPENSTEP to a Macintosh or Macintosh network.   What software is available to do this?

A: Several third party products are available for doing OPENSTEP to Appletalk or Mac to TCP/IP networking, including printer sharing.
      Two companies that NeXT knows of are:

Partner   uShare
IPT (Information Presentation Technologies, Inc.)
(800) 233-9993
(805) 541-3000
(805) 541-3037 (fax)
555 Chorro Street, Suite A
San Luis Obispo, CA 93405

NFS/Share   InterPrint   Planet X
InterCon Systems Corporation
(703) 709-5500
(703) 709-5555
email: info@intercon.com
WWW: http://www.intercon.com/

950 Herndon Parkway, Suite 420
Herndon, VA 22070

See Also: *Third Party Products Guide*

Using an Intel Triton based motherboard and a S3 based video card

Q: When my system boots the screen turns black right when the boot graphics should appear, and it does not appear to finish the boot
sequence.

A: Systems using motherboards based on the Intel Triton PCI chipset and video cards based on an S3 chip lock up when boot graphics
are enabled. In order to boot the system, you must disable boot graphics.

To boot OPENSTEP without boot graphics, you need to restart the computer in verbose mode.   At the **boot:** prompt type:

boot: **-v**

Also,   it is possible to dissable boot graphics using the Configure application found in **/NextAdmin**. When Configure launches, there is
a Summary of Devices panel. Click on the "Expert..." button to edit the Expert Settings. Double click on the word "Yes" after "Boot
Graphics" and change it to "No". Hit return, click ok and save your changes. Now when you boot, the system will automatically go into
verbose mode.

Does OPENSTEP run on the Pentium Pro processor

Q: I'm thinking about buying a new PentiumPro workstation...

A: Please read NeXTanswer 2566_Non-Intel_CPU.

Running the PCNFS Daemon

Q: Where can I get a new version of pcnfsd?

A: You can download the source and makefile for a NEXTSTEP version of rpc.pcnfsd from
     ftp://ftp.york.ac.uk/pub/pc-nfs/RPC.pcnfsd/pcnfsd.tar