

NEXTSTEP For Intel Processors

Title: Overcoming 3.3 Installation Hurdles

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Overview

Sometimes, the NEXTSTEP installation programs can get confused about your system configuration, or there may be some incompatibility that prevents you from going through a certain phase of installation. Often, if you can jump over these hurdles, you can still get NEXTSTEP installed and running on your system. This NeXTanswer details why the installation process does what it does during certain phases of the installation, the steps to take to bypass them.

Definitions

For the sake of clarity let's define two phases of installation.

Phase 1: This is when you initially boot your system off of the installation floppy and load the software off the CD-ROM. It goes up to the point when the dots have finished travelling across the screen, and the system reboots.

Phase 2: This is the configuration and package installation phase. When the system reboots off the hard disk, you

still need to have the CD-ROM in the drive to load packages from, but all essential information is already on your hard disk. It goes up to the end of package installation, and subsequent reboot.

Phase 3: This is when the system is fully up and running, and you are asked to configure the language and keyboard preferences.

Screen Goes Black

When booting some systems, the screen may just go black, and the system will hang. On some systems this can be prevented by booting in verbose mode. Type "-v" at the boot: prompt to boot in verbose mode.

Convincing the Booter That You Actually Have Drivers

When rebooting into Phase 2, the booter will determine if you used drivers that were not on the CD-ROM during installation. If so, it will ask you to insert the driver floppy. Sometimes, it may have trouble reading the driver floppy. You can boot up in single-user mode off the CD-ROM and copy the drivers onto the hard drive.

To boot single-user off the CD-ROM:

1. Make a copy of the 3.3 Core Drivers Floppy and the 3.3 Additional Drivers Floppy (see 1921_Creating_FDs_From_Images_Under_NEXTSTEP_and_DOS.rtf)
2. Boot off the installation floppy as if you were going to install, but type "-s" at the boot: prompt. (You will be prompted for the driver floppy, and everything will proceed the same as a regular installation, but it will stop short of actually installing.)
3. Make sure that you specify the Floppy Driver off of the Core Drivers Floppy as well as the regular boot drivers. You need it so you can use the floppy drive in single user mode.
4. At the # prompt, type "mount -n -o -ro /dev/hd0a /Disk" (use /dev/sd0a if it is a SCSI drive) to mount the hard drive.
5. Insert your floppy with the additional drivers on it that you need to copy over.
6. At the # prompt, type "mount -n /dev/fd0a /Floppy" to mount the floppy.
7. At the # prompt, type "cp -rp /Floppy/private/Drivers/i386/drivename.config /Disk/private/Drivers/i386/" to copy a driver to the hard drive.
8. At the # prompt, type "mv /private/Drivers/i386/System.config/InstallHints /private/Drivers/i386/System.config/InstallHints.old" to rename the InstallHints file. Both the booter and Configure use the InstallHints file to determine if you used drivers that were not on the CD-ROM.

Bypassing Configure

Configure is the first graphical program that comes up in Phase 2. For some machines, it can crash the installation process and render your system unbootable. To bypass Configure, you can boot up in single-user mode off the hard drive and create the Instance0.table file.

To do this:

1. Boot normally off the hard drive, but type "-s" at the boot: prompt
2. At the # prompt, type "cd /private/Drivers/i386/System.config"
3. At the # prompt, type "cp Default.table Instance0.table"
4. At the # prompt, type "exit"

This will exit single-user mode, and continue on with the rest of the configuration. After you've completed the rest of the configuration, you should be able to log in as root, launch Configure.app, and configure all the drivers for your system.

Note: You should always save and quit in Configure, then log out and reboot your machine for changes to take effect. Doing the "quick reboot" could cause your disk to become corrupted and unbootable.

Warning: Because you created the Instance0.table by hand, it could become out of sync with what Configure shows you. After running Configure to set up your drivers, you should check the Instance0.table manually (by viewing it in Edit) to make sure that drivers are not listed twice, and that extra drivers are not listed.

Bypassing BuildDisk

BuildDisk is the second graphical program that comes up in Phase 2. It is the one that lets you choose what packages to install. Sometimes, especially with large disks, BuildDisk can become confused and report that you have little or no disk space available to install packages. It won't let you continue beyond this point. You can bypass BuildDisk by booting up in single-user mode off the CD-ROM and creating the /usr/adm/BuildDisk.custom file.

To do this:

1. Boot normally off the hard drive, but type "-s" at the boot: prompt
2. At the # prompt, type "touch /usr/adm/BuildDisk.custom" to create the BuildDisk.custom file.
4. At the # prompt, type "exit"

This will exit single-user mode and allow you to continue with the rest of the installation. NEXTSTEP has been fully installed and functional at this point, but none of the extra packages have been installed. You can install them individually by logging in as root and double clicking on the packages in the folder /NeXTCD/Packages on the CD-

ROM.