NeXT Technical Alert 92-2

Summary

Some floppy operations using the internal floppy drive on non-Turbo hardware under Release 2.2 (2.2J) are unreliable.   Operations with DOS format floppies are particularly at risk.   This problem could result in the loss or corruption of data stored on certain formats of floppy disks.

Description

The BuildDOS application does not successfully initialize DOS format floppies when used with the internal floppy drive on non-Turbo systems running Release 2.2.

When DOS format floppies are used in the internal drive of non-Turbo systems under Release 2.2, many common file operations can fail and floppy data loss or corruption may result.   The problem can occur when the DOS floppy is accessed through the Workspace Manager or through UNIX commands entered at a command-line prompt.

All operations with DOS floppies on the internal floppy drive of affected systems (i.e., copy, move, destroy, etc.) are unreliable.

Operations that use the "raw" internal floppy device can fail on non-Turbo systems running Release 2.2 or 2.2J.   An example of such an operation would be the use of the UNIX **tar** command to archive files to the raw internal floppy device (**/dev/rfd0b**).   All such commands (**tar**, **cpio**, **dd**, **dump**, etc.) to the raw device can fail on the affected systems and should not be attempted, as floppy data loss or corruption may result.

Systems affected

· 25 MHz NeXTstation running Software Release 2.2
· 25 MHz NeXTstation Color running Software Release 2.2
· 25 MHz NeXTcube 040 systems with internal floppy drives running Software Release 2.2

Systems not affected

· NeXTcube Turbo
· NeXTstation Turbo
· NeXTstation Turbo Color
· NeXT systems without internal floppy drives (i.e., original 030 NeXT Computers)

Symptoms

BuildDOS fails with a "make_dos: I/O error" alert panel.

Failing commands show **Bad Controller Phase** error messages logged in the Console:

```
fc0: Controller Reset: Bad Controller Phase
fd0: Sector 1(d) cmd = Write; Bad Controller Phase: FATAL
write: I/O error
```

Notes

Normal operations using NeXT formatted floppies are not affected.   Commands such as **tar**, **cpio**, etc., may be used on the internal floppies of affected systems as long as they don't use the raw deviceÐi.e., if they are used to create archives that are stored as files on the floppy file system.

Operations with DOS format floppies using external (i.e., SCSI) floppy drives and any commands that use the raw device of external floppy drives are not affected.

Solution

NeXT Software Release 2.2a fixes this problem.   NeXT will create a floppy set that will update

a Release 2.2 system to Release 2.2a.   NeXT Authorized Support Centers and NeXT Authorized Service Providers will be sent the Update as soon as the final testing on 2.2a has been completed and should update all their affected customers.

For More Information

Contact your NeXT Authorized Support Provider for more information about this problem.   NeXT Authorized Support Customers should contact NeXTedge Technical Support with questions 1-800-848-NeXT.