

# NEXTSTEP for Intel Processors

**Title:** Pro Audio Spectrum 16

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## **Product Vendor:**

MediaVision

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## **Usage Commentary:**

The Pro Audio Spectrum 16 plays and records up to 44.1-kHz stereo under Releases 3.1 and 3.2 of NEXTSTEP for Intel Processors. Data formats directly supported by hardware are 8- and 16-bit linear. Some problems are known to exist in Pro Audio Spectrum 16 support; please see the list of problems below before selecting a system.

NEXTSTEP does not support the Pro Audio Spectrum 16's integrated SCSI controller.

## Setup and Installation:

The Pro Audio Spectrum 16 is configured entirely in software via NEXTSTEP's Configure application. To change the DMA channel and/or IRQ level, you only need to run Configure.app and then reboot for the changes to take effect. A Pro Audio Spectrum 16 requires one DMA channel, an IRQ level, and a port address. In general, the PAS-16 can be configured to use DMA channels 0, 3, 5, 6, or 7.

Diagnostic utilities are provided with the board for use under DOS. Run **install.exe** under DOS to test out the various DMA channels and IRQ levels to determine which settings will work best on your computer.

## Known Problems:

### Release 3.3

See NeXTanswers document 1802\_Pro\_Audio\_Spectrum\_16\_Driver\_Overview.rtf

### Release 3.2

- On EISA systems, the Pro Audio Spectrum 16 cannot be configured to use DMA channels 0-4.

### Release 3.2 and 3.1

- NEXTSTEP does not support the Pro Audio Spectrum 16's integrated SCSI controller.
- On some systems, when the IRQ is set to 5, sounds will repeat infinitely. The Quality Assurance group recommends changing the IRQ using Configure. Then reboot for the changes to take effect.
- On some systems when an Adaptec SCSI controller is present, the Pro Audio Spectrum 16 will not function correctly. If the Adaptec controller controls the bus for long periods of time, the Pro Audio Spectrum 16 board is locked out and freezes, which may cause a kernel panic. This is a hardware problem that has also been discovered in other 32-bit operating systems.
- The Pro Audio Spectrum 16 does not work in some obsolete Epson Progression machines.

### Release 3.1

- No device can be configured to use DMA channel 0 under Release 3.1.
- Initial tests indicate that the Pro Audio Spectrum board will work on ISA machines if you select an 8-bit DMA channel. DMA Channels 1 through 4 should all be 8-bit. If you select a 16-bit DMA channel (5 through 7), a pattern of *audio. . .silence. . .audio. . .silence* results.
- Playing or recording large 8kHz mulaw sound files can panic or hang a machine under Release 3.1.
- Occasional dropouts (intermittent loss of audio) may occur during playback starting at 22-kHz under heavy system load.
- Adaptive Transform Coding (ATC) sound compression (used by the **sndcompress** command-line utility) is unsupported under NEXTSTEP Release 3.1. To use sounds stored in this format, use the **sndcompress** utility under Release 3.0 to convert them first.
- Due to two kernel bugs, DMA channels 0, 5, 6, and 7 cannot be used on ISA machines. This is not a problem for EISA machines.