Installing Update 1 of the Intel GX/Professional Audio Subsystem Device Driver for NEXTSTEP Release 3.2 for Intel Processors

These instructions show you how to install the Intel GX/Professional audio subsystem device driver on an Intel-based computer running NEXTSTEP™ Release 3.2. The driver is distributed in an Installer package file named **IntelGXAudioDriver.pkg**.

This updated driver fixes bug number 40191, reporting an 8-bit/mono recording whine problem.

With this driver you can play and record 8-bit mulaw and 16-bit linear sounds. This driver supports audio subsystems on all versions of Intel GX/Professional computers.

Setting Up the Intel GX/Professional Audio Subsystem

Part of installation requires that you match the hardware DMA and IRQ settings to the software.   To do this, you should check the system for any

possible contentions, change hardware settings if need be, then install and set up the device driver. By default, the Intel GX/Professional audio subsystem device driver expects DMA channel to be 6 and IRQ to be 15. Some early versions of the Intel GX/Professional computer use DMA channels 5 or 6 for their audio subsystems instead of 3 or 6.

Note: If you are using any other device that uses the same DMA channel or IRQ, you must resolve those conflicts before you install the device driver. Generally, it's simpler to change the settings for the audio subsystem and avoid changing settings for SCSI, keyboard, or display devices.

1. Start up the Configure application by double-clicking **Configure.app** (it's in **/NextAdmin**).
2. Click the Audio icon at the top of Configure's Summary window.
3. Inspect the DMA and IRQ values to be sure no other devices contend for those you select for the audio subsystem. Make changes in audio settings to avoid contention.
4. Click Done, then click Save.

Note: Some Intel GX/Professional systems provide that you can change

the hardware by using the EISA Configuration Utility (ECU), other models do not make such provision.   If your computer does not allow hardware manipulation via ECU, skip to the section titled "Installing the Device Driver."

5. Start up your computer using the EISA Configuration Utility (ECU) disk.
6. Use the ECU menu-based commands to configure audio to use the same DMA and IRQ values as those you set with the Configure application.
7. Save the ECU configuration.
8. Remove ECU floppy and start up your computer in NEXTSTEP.

Installing the Device Driver

1. If you received the **IntelGXAudioDriver.pkg** file via NeXTmail™ or another electronic source, place a copy of the file in a location where you can access it when you log in as **root**.
2. Log in as **root**.
   Only the superuser, **root**, can install the device driver. If you're not sure how to log in as **root**, see your system administrator.

3. If you received the **IntelGXAudioDriver.pkg** file on a floppy disk, insert the disk in the floppy disk drive and choose Check for Disks from the Workspace Manager™ application's Disk menu. When the disk icon appears in the File Viewer, double-click it to open it.
4. Double-click the **IntelGXAudioDriver.pkg** file.
5. Click the Install button in the Installer package window. When the panel asks you to confirm that you want to install software for Intel-based computers, click Install.   If a panel warns you you're about to overwrite existing files, click Continue.
6. When the installation is complete, choose Quit from the Installer menu.

Configuring the Device Driver

1. Start up the Configure application by double-clicking **Configure.app** (it's in **/NextAdmin**).
2. Click the Audio icon at the top of Configure's Summary window. If "Intel GX/Professional Audio Adapter " is in the list of devices at the top of Configure's Audio Devices window, choose Quit from the Configure menu and skip to step 13.

3. If you see the name of another kind of audio adapter in the list at the top of Configure's Audio Devices window, select its name in the list and click Remove.   Then click Add, and in the Add Audio Devices panel that opens, select "Intel GX/Professional audio adapter " in the list and click Add.
4. Select the DMA and IRQ settings that match those that you set with the ECU utility.
5. Click Done, then click Save.
6. Choose Quit from Configure's menu.

Removing the Install Package and Restarting the Computer

1. If you created a copy of the **IntelGXAudioDriver.pkg** file in step 1, drag the copy to the recycler.
2. Choose Log Out from the Workspace menu and then click the Restart button in the login window
   Note: You must restart your computer after installing and configuring the device driver.   The next time you start up your computer, it will use the new driver.

For information about logging in and out, the Workspace Manager application, and the Installer application, see the NEXTSTEP *User's Guide*. For information about the Configure application, see *Installing and Configuring NEXTSTEP Release 3.2 for Intel Processors*.   For information concerning compatibility issues and bugs, refer to NeXTanswers.

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