

The Hard Disk Sampler Tool Kit !

GIGA *Station*



Owner's Manual

EGO·SYS[®]

www.egosys.net

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R A D I O F R E Q U E N C Y I N T E R F E R E N C E

NOTE: This equipment has been tested and found to comply with the limits for a Class A device, pursuant to Part 15 of the FCC Rules., and EN50 081-1/2:1992 of CE Test Specifications. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause interference to radio communications.

C O R R E S P O N D E N C E

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CHAPTER 1. INTRODUCING GIGA STATION

Thank you for choosing GIGASation. You have made the best choice for a Hard Disk Sampler Tool Kit as you will find out shortly.

GIGASation is the new alternative to the sampler. By using your hard disk as sampler memory, you can enjoy creativity on a much larger scale than ever imagined.

GIGASation is the audio card specifically designed for use with GigaStudio. It includes all the features you need to build a hard disk sampler from scratch.

Features

GIGA-WIRE

GIGA-WIRE is the driver technology developed by Ego Sys/Audio Trak which routes the output of GigaStudio into the inputs of ASIO. You can record directly from Cubase and insert all VST plugins into Cubase under the channels streaming from GigaStudio.

20-bit D/A converter

GIGASation has 20-bit D/A converters. You can work with the best quality audio using the 20-bit D/A converters.

8 Analog Outputs

GIGASation provides eight 1/4" stereo phone jack outputs.

5.1/7.1 ch. Dolby Surround

GIGASation can be used for 5.1/7.1 ch. Dolby Surround sound. You will need a DVD ROM and DVD software player to build a high-quality surround system. Also, you can produce surround audio with software capable of producing surround sound using a Dolby surround DVD player in your computer.

S/PDIF Coaxial Digital output

GIGASation has an S/PDIF coaxial digital output port that will minimize signal loss when transferring digital data to or from other digital equipment including MD and DAT players.

CD-ROM Analog Input

GIGASStation has an analog input port to connect the CD-ROM drive analog output that allows you to listen to audio CDs with your CD-ROM drive.

Various Sample Rate Support

GIGASStation supports various sample rates from 32kHz, to 44.1kHz and 48kHz. GIGASStation automatically detects the sample rate in order to select the appropriate sample rate. You will only need to set up the sample rate in your software in order to have GIGASStation set it accordingly.

32-bit PCI Slot for PCI Bus Mastering Support

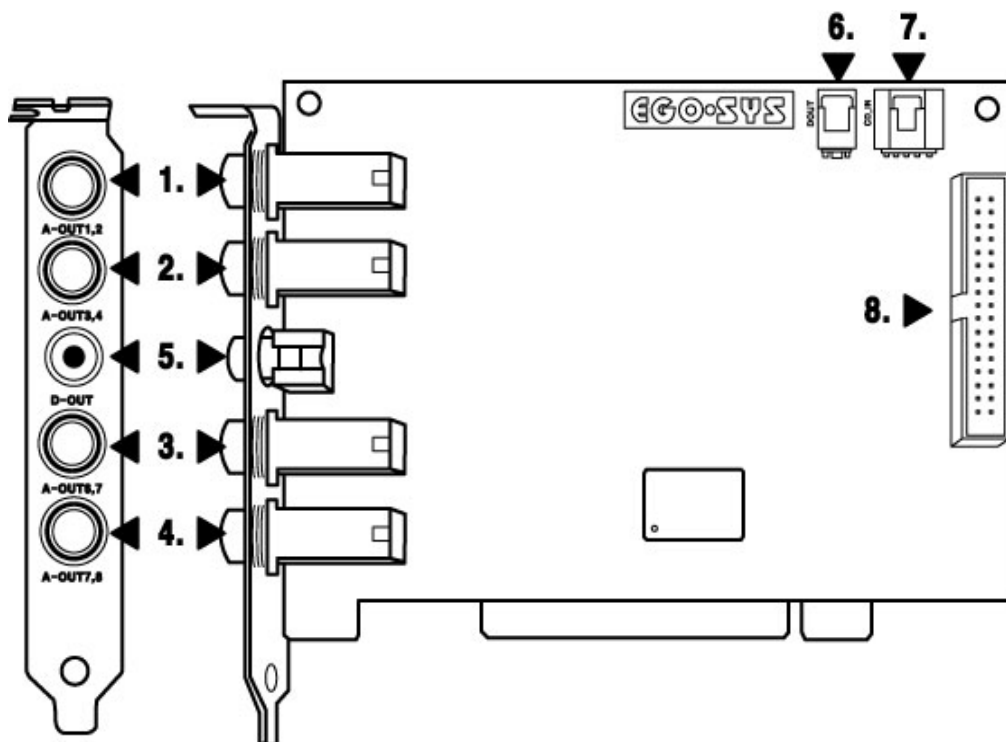
GIGASStation uses only a small amount of system resources. This allows you to use more software plug-in effects without placing a heavy burden on the CPU.

What's in the box

GIGASStation is shipped with the following contents:

- 1 GIGASStation PCI Card
2. GIGASStation connector
3. GS2120 MIDI Interface CARD
4. GS2120 Cable
5. Four MIDI connector plugs
6. Installation disk
7. This manual
8. Nemesys GigaStudio LE (CD)
9. Nemesys GigaPiano (CD)
10. GM500 (CD)
11. Power DVD (CD)

GIGASStation PCI CARD



1. Analog Outputs 1,2

2. Analog Outputs 3,4

3. Analog Outputs 5,6

4. Analog Outputs 7,8

- Four ports are stereo, so there is a total of 8 Outputs.

5. **Coaxial SPDIF Output:** GIGASStation's 2 channel output port. You can use this for connecting a DAT player, etc.

Note: *In this port, the output is the same as Analog 7,8 of GIGASTation.*

If you want to use the digital output, you have to choose Analog outputs 7 and 8.

Note: *In Coaxial, You need only one RCA jack for stereo output, because it's digital.*

Don't use this RCA jack for analog equipment.

6. **DOUT** – 2 pin Output connector

Using a 2 pin cable, you can access the SPDIF format Output.

7. **CD In** – CD-ROM

8. **GS 2120 connector:** You can connect the GS2120 here.

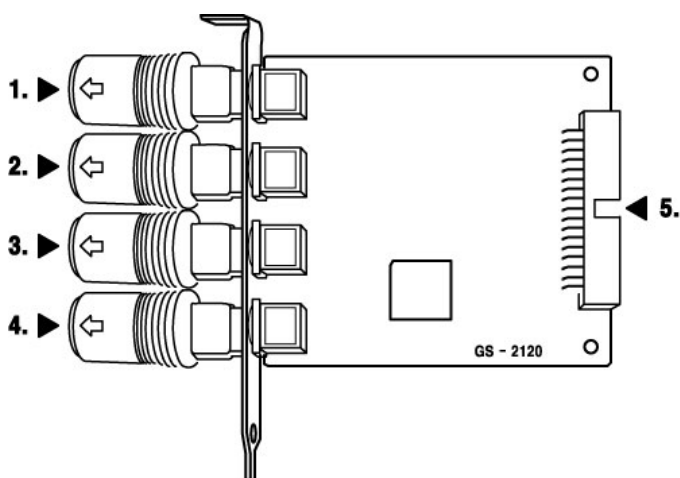
About the GS2120

The GS2120 is a 2 In, 2 Out MIDI Interface from EGO SYS. The **GS2120** is **ONLY** designed to be used with the **EGO SYS GIGASStation**.

You can use it easily with a simple installation. The GS 2120 is an easy installation device and does not require any power supply, IRQ setting, or driver to install.

The **GS2120** driver is already included in the driver of **GIGA Station**.

Therefore, by the installation of the driver for GIGASStation, you can use the GS2120 right away. The GS2120 can be used under Windows 98SE/ME/2000 with GIGA Station. One point of interest is that it will work under Windows 2000 to provide the most stable MIDI work environment.



1. MIDI Input 1 : Connect to Keyboards or MIDI Controllers
2. MIDI Input 2 : Connect to Keyboards or MIDI Controllers
3. MIDI Output 3 : Connect to Sound Modules
4. MIDI Output 4 : Connect to Sound Modules
5. Connect to the GIGASStation

CHAPTER 2. Hardware Installation

System Requirements:

To take advantage of the GIGASation and its full capacity, the computer specifications are very important. Even though the GIGASation is built to have low-CPU dependability, the computer needs to meet some requirements in order to achieve maximum performance. The GIGA Station is not just a simple soundcard, but a multimedia digital audio device with various functions. Therefore, the performance of the GIGASation is affected by the computer specs that are required to process a vast amount of digital data. A faster CPU, faster hard disk, and larger amounts of RAM are recommended.

Minimum system requirements:

1. Intel Pentium II CPU
2. 64MB of RAM
3. One available PCI slot
4. Microsoft Windows 98 SE/ME/2000 Operating System
5. Ultra DMA 33 hard disk drive

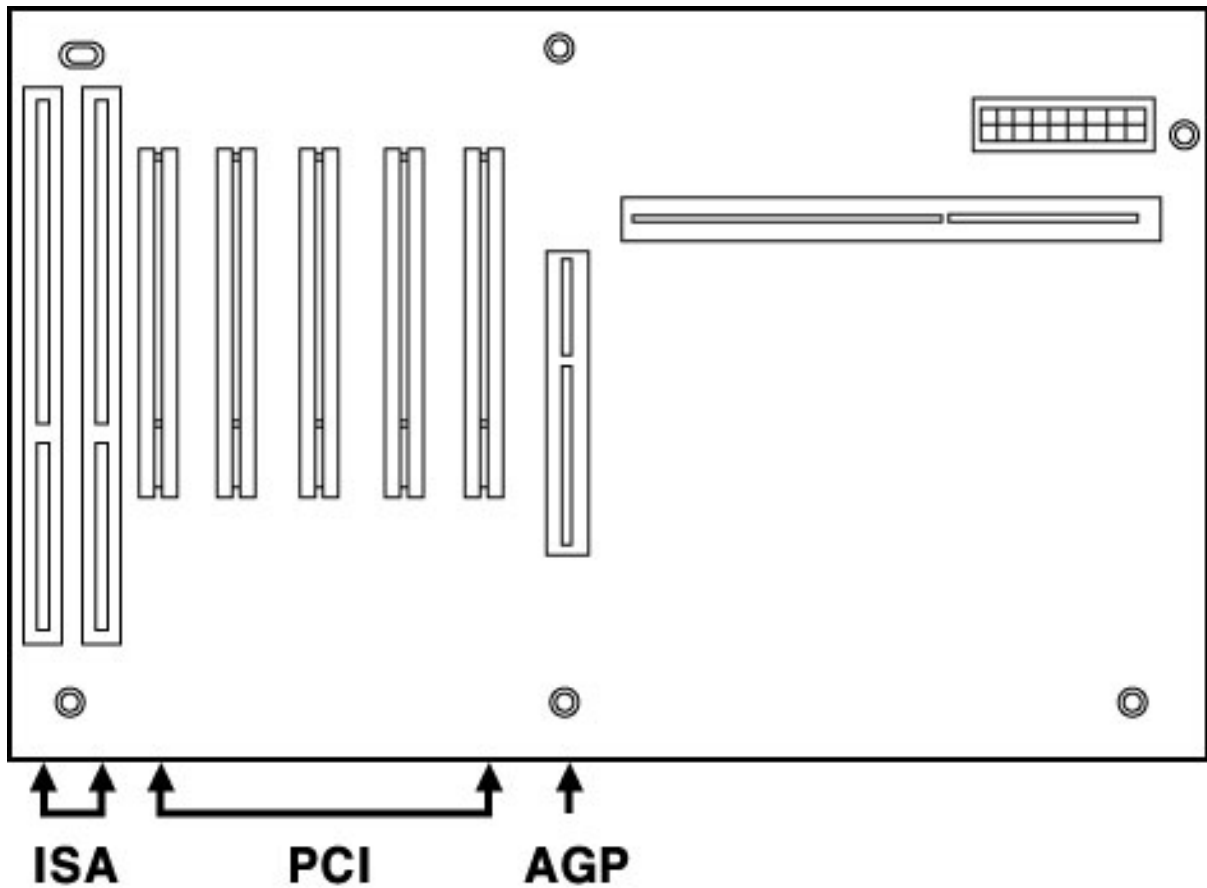
Recommended System Requirements:

1. Intel Pentium III CPU or higher
2. More than 128MB of Ram
3. One available PCI Slot
4. Microsoft Windows 98/ME/2000 Operating System
5. UDMA 66/100 7200 rpm hard disk drive

***** For using the GS2120, you need an open space in your computer rack. However, the GS2120 doesn't need to be inserted in a PCI slot.**

Hardware Installation

GIGASTation PCI card



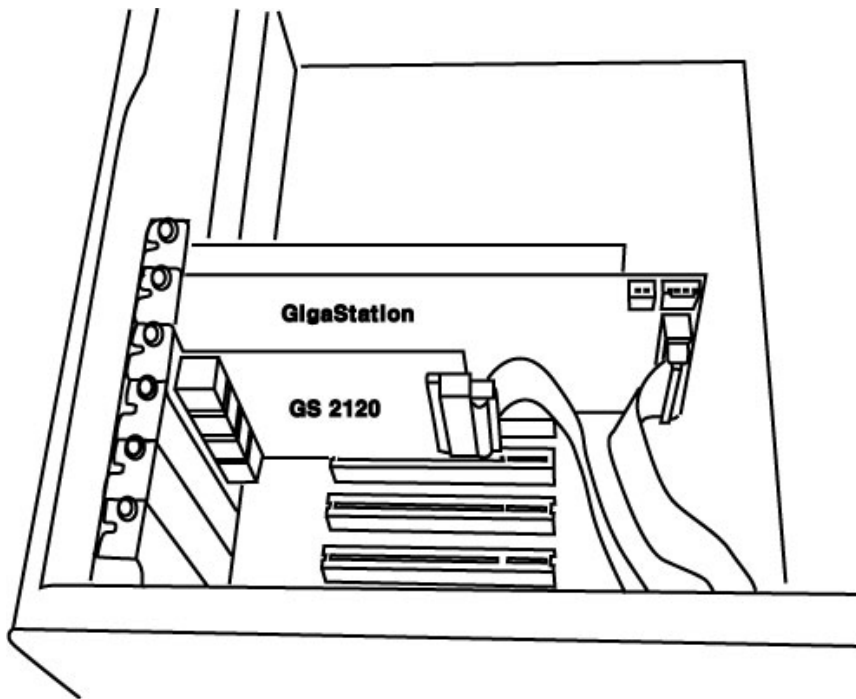
To install the GIGASStation card in your computer:

1. Turn off your computer. Leave it plugged in so that it is grounded.
2. Open the computer case. Remove the screw and the rear slot cover of an available PCI expansion slot in your computer.
3. Discharge any static electricity that may be on your clothes or body by touching a grounded metal surface such as the power supply case inside the computer.
4. Remove the card from its anti-static bag.
5. Push the card firmly but gently into the PCI slot until the card's connector clicks into place. Make sure that the audio connectors at the end of the card go through the rear slot of the computer.
6. Attach the rear bracket of the card to the computer, using the screw from the rear slot cover.

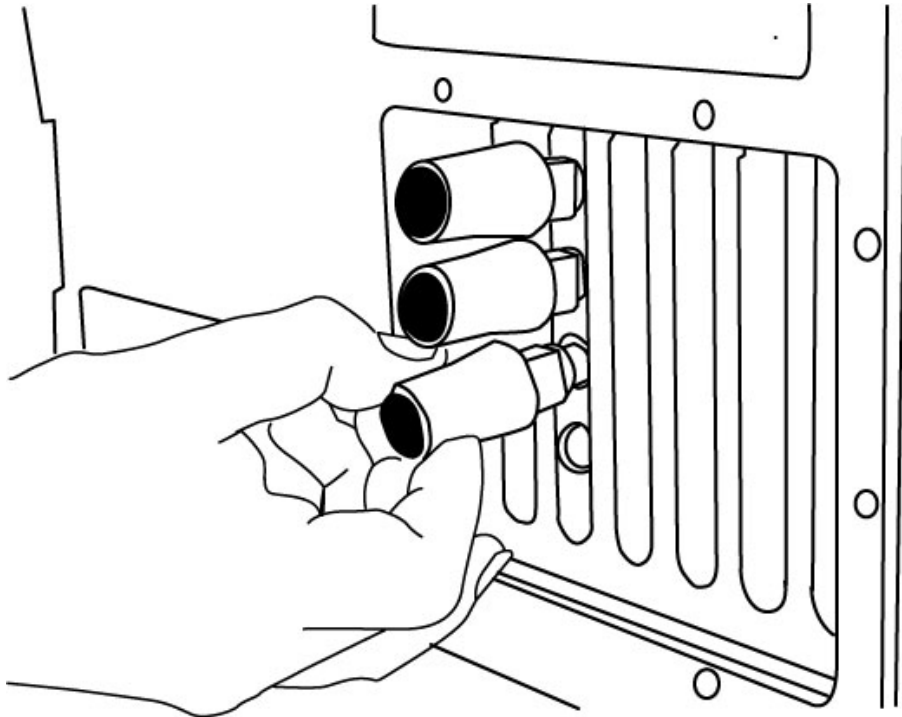
GS2120 MIDI Interface

To install the GS2120 card in your computer:

1. You require one empty slot close to the GIGASTation.
2. Connect the GS2120 connection cable to the GIGASTation connector. The cable can be connected only one way.
3. Place the GS2120 into the empty slot. Be careful not to touch other cards to avoid any damage to the cards.



4. Check to see that the GS2120 is firmly in place.
5. Locate the MIDI cable connector at the back of the computer.
6. Connect all 4 MIDI connector plugs that are provided.



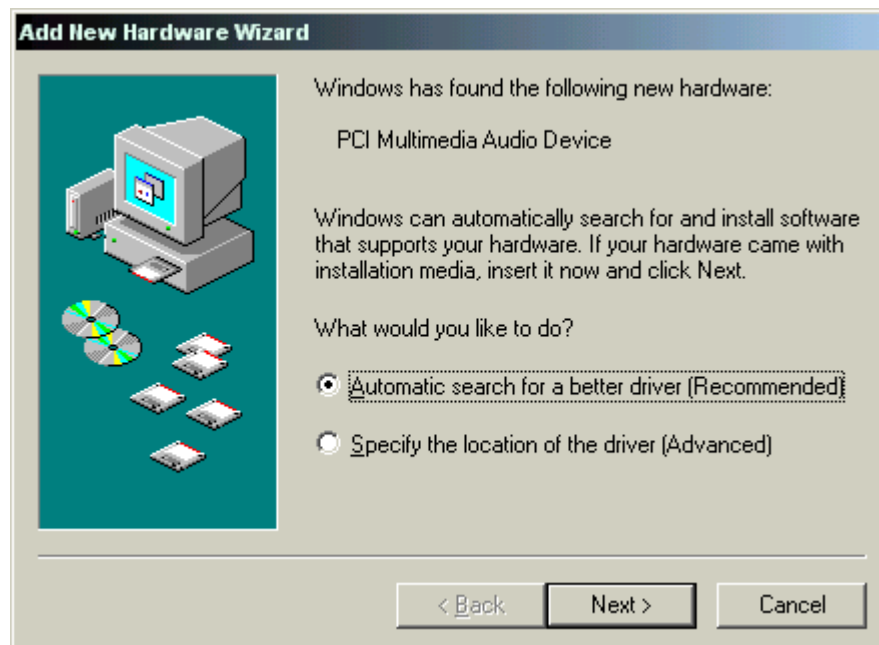
7. Connect the MIDI cables to the MIDI plugs (MIDI cables are not included in the package).

CHAPTER 3. Software Installation

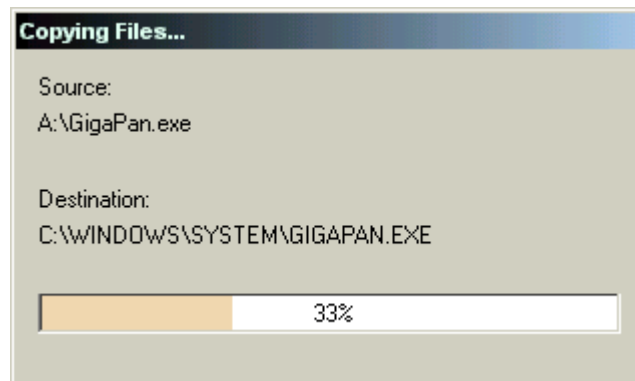
After completing the installation of hardware for the GIGASation, you need to install its software to use under Windows. The software installation is not too hard, even for computer beginners. Just follow the steps below and you will complete it without any problems. The installation steps under Windows 98 SE, Windows ME and Windows 2000 are described here.

Installation under Windows ME

1. After the hardware installation, turn on your computer. Windows will automatically recognize the GIGASation showing the message that it detected a 'PCI Multimedia Audio Device.'
2. Windows "Add New Hardware Wizard" will try to locate the driver for the new device. Put the GIGASation Installation diskette into the floppy disk drive, select 'Automatic search for a better driver [Recommended]' then press 'Next.'



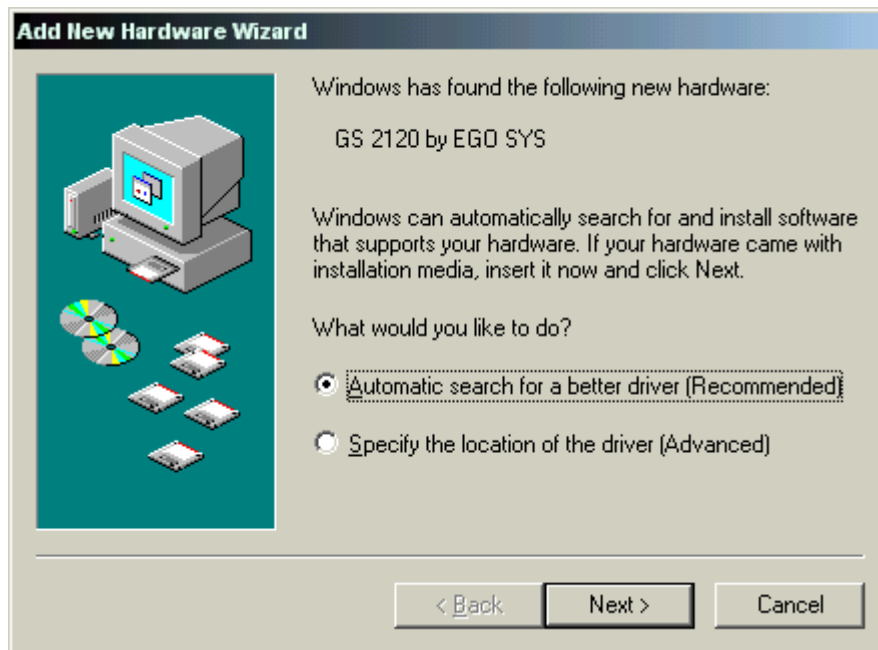
3. Windows will now copy the necessary files to the system folder.



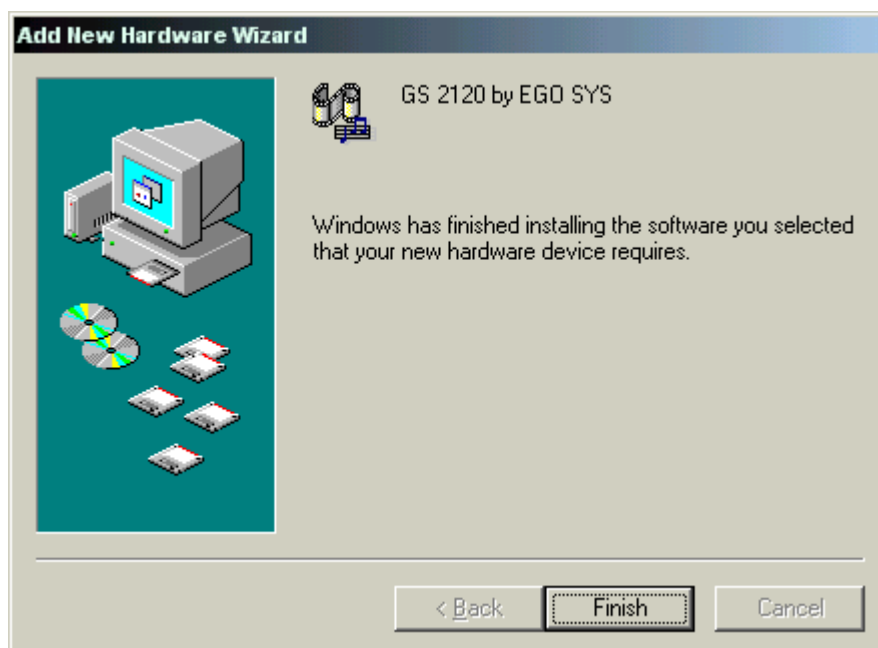
4. Windows has now completed installing the GIGASStation driver.



5. After installing the driver for the GIGASation, Windows will automatically detect the “GS2120,” the optional MIDI interface for GIGASation. Just let the installation finish. Select “Automatic search for a better driver [Recommend]” then press ‘Next.’

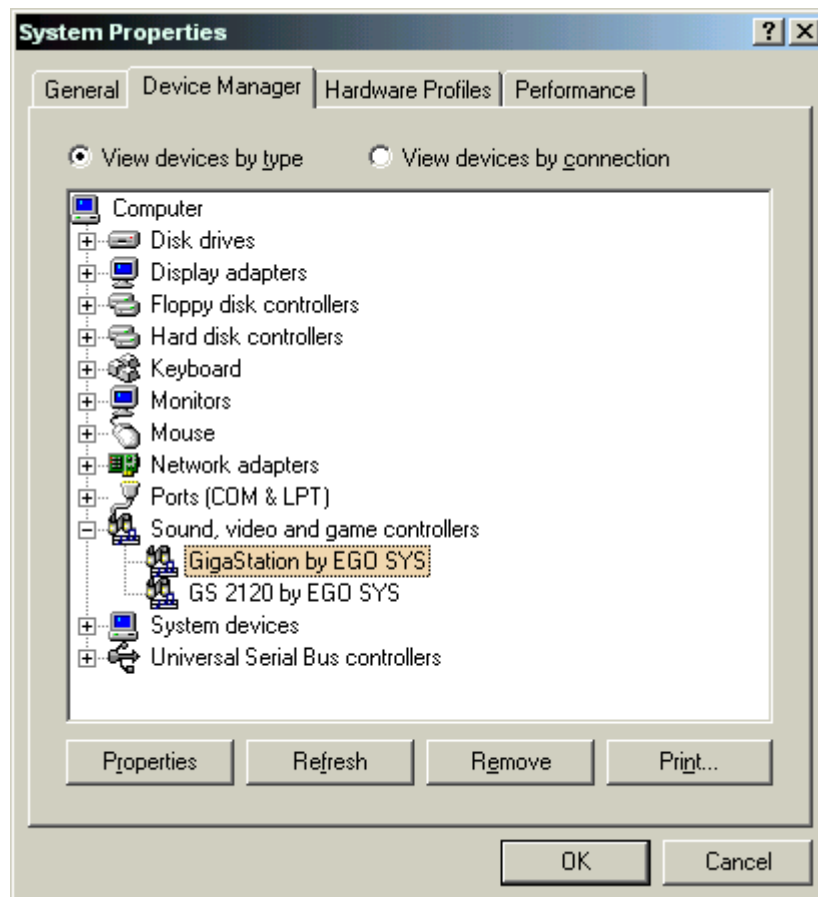


6. Windows will copy the necessary files to the Windows system folder and complete the installation for the GS2120. Press ‘Finish.’



7. Windows will inform you that it has finished installing the new hardware. Press 'Finish.'

8. Go to 'My Computer ->Control Panel -> System -> Device Manager.' Check the devices 'GIGAStation by EGO SYS' and 'GS2120 by EGO SYS' devices under Sound, Video, and Game controllers.



Installation under Windows 2000

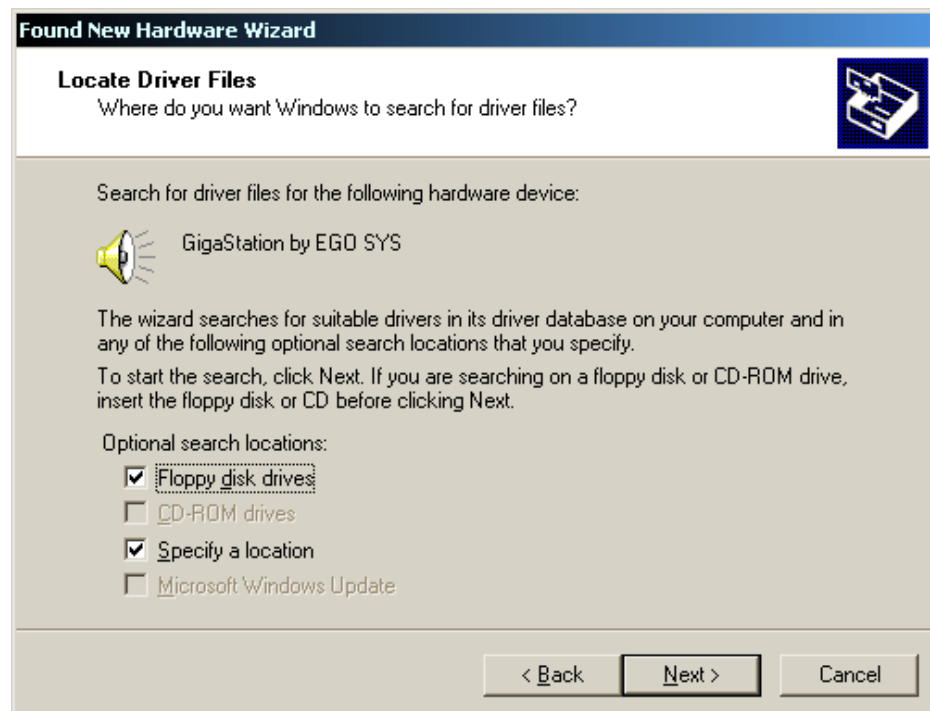
1. After the hardware installation, turn on your computer. Windows will automatically recognize the GIGASation showing the message that it detected a 'PCI Multimedia Audio Device.'
2. The "Found New Hardware Wizard" will pop up as in the following window. Select "Add/Troubleshoot a device" then press 'Next.'



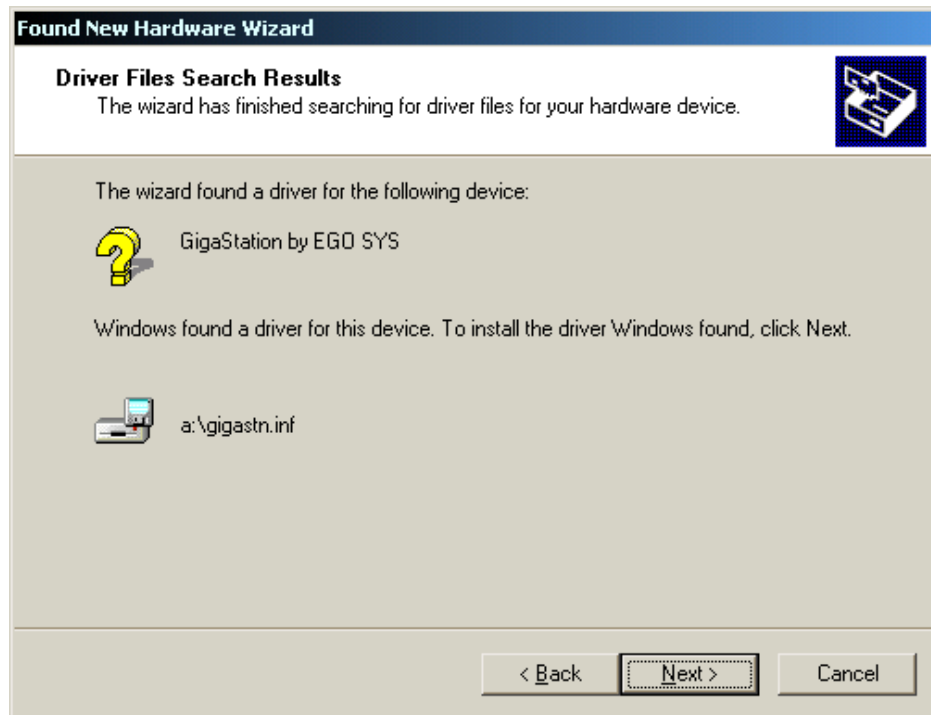
3. Select “Search for a suitable driver for my device [recommended].”



4. Specify the location of the driver. Insert the provided diskette into the floppy disk drive and select 'floppy disk drive.'



5. Now Windows will recognize the GIGASStation after searching for the installation files in drive “A” and copy them to the system.

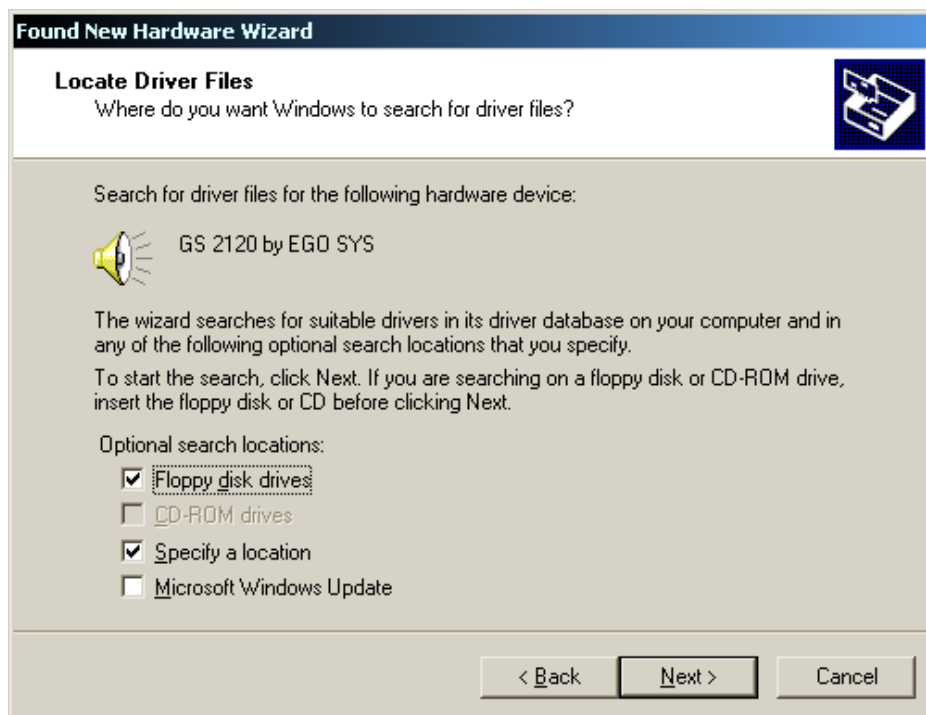


The GIGASStation audio driver installation will be finished after copying files from the installation disk to the system.



6. After finishing the audio driver installation, the second driver installation will begin. This step will start automatically with Windows as in the picture. “GS2120” will be detected. Select “Search for a suitable driver for my device [recommended]” then press ‘Next.’

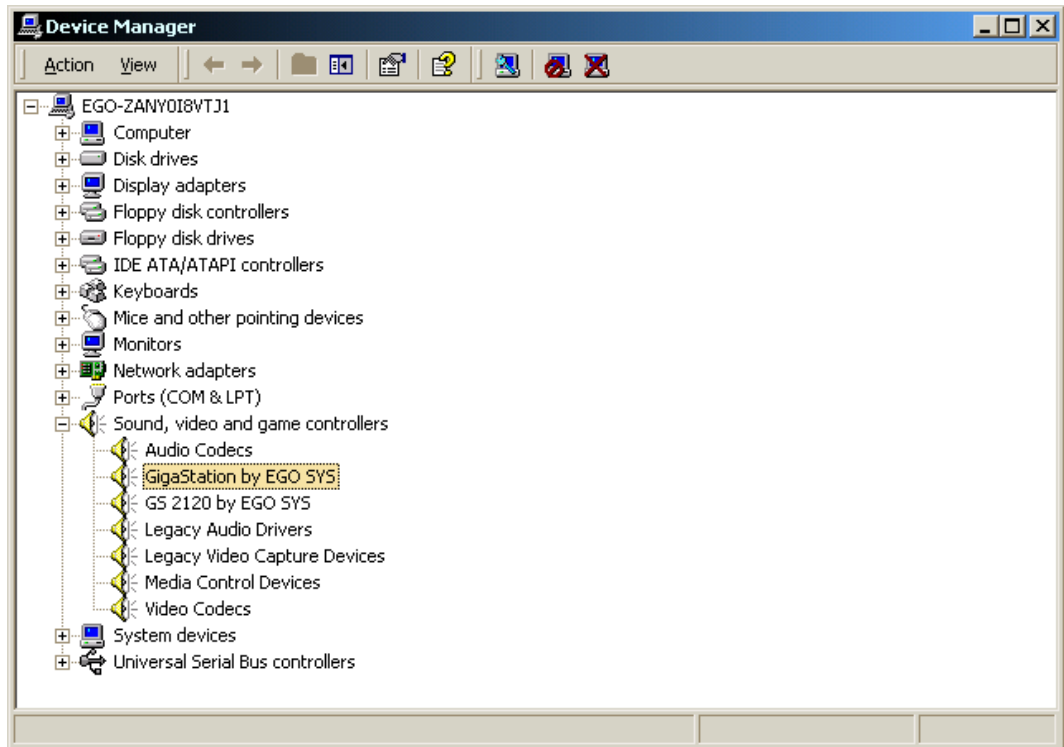
7. In this step, you will need to specify Drive “A” for information files. Mark the check box for “floppy disk drives” then press ‘Next.’



8. Now the ‘GS2120’ is ready to be installed. Press ‘Next’ to finish the installation.

9. All required software is then installed and Windows will ask you to restart the system. Restart the computer.

10. After rebooting, go to 'My Computer -> Control Panel -> System -> Device Manager.'
Check the devices under "Sound, Video, and Game controllers."



CHAPTER 4. GIGASStation Control Panel



If you complete the GIGASStation hardware installation and software setup, you need to learn about the GIGASStation Control Panel. This control panel is where you control your setup for GIGASStation. The GIGASStation Control Panel is built for easy control.

After successfully completing the GIGASStation hardware and software installation, you can see the **G** icon in the system tray. This is the GIGASStation Control Panel icon and the Control Panel will be launched as you click this icon.

1. CD Monitor Mode

This section is for configuring your internal CD-ROM and GIGASStation for listening to audio CDs. The CD monitoring works only in the analog 1,2 outputs.

This means that you can listen to CDs only via the analog output. You can enjoy listening to audio CDs, but you can't record using GIGASStation.

1. Level Fader

This fader controls the CD monitoring level. You can control levels 1~8 individually or as pairs such as 1-2,3-4,5-6 and 7-8 in Stereo. Move the mouse pointer over a

specific port fader to adjust the level individually. To adjust a stereo level, move the mouse over the middle of the stereo ports. The selected port fader will turn into a brighter color to indicate the selected ports. You can move the fader in three different ways:

- Drag the fader as you press the left mouse button.
- Select the fader with the mouse cursor and adjust with the mouse wheel. You can select the steps from the pull-down menu. 'Config' -> 'Mouse Wheel.'
- Select the fader with the mouse cursor and use the up and down arrows of your keyboard.

2. Level Meter

The Level Meter will display incoming signal levels. This will be active when there is a signal coming from the CD Input.

3. Input Level Indicator

The Level Indicator shows the current level set for the CD Input.

2. Analog Outputs 1~8

This is the output volume control fader that controls outputs 1~8 of the GIGASation. All 8 level faders act the same so you need to learn only one. The 4 Stereo outputs of the GIGASation PCI card are connected with OUT 1,2 OUT 3,4 OUT 5,6 and OUT 7,8 of the Control Panel.

1. Level Fader

The Level Fader will change the level of the wave out volume. You can control outputs 1~8 individually or control the stereo pairs like outputs 1-2, 3-4, 5-6, and 7-8. You need to move the mouse pointer over the specific port fader to adjust it individually or move the mouse pointer over the middle of the two ports to adjust it in stereo. If the port fader(s) is selected, it will turn into a brighter color.

You can move the fader in three different ways. Basically, the volume level can be adjusted by $\pm 0.5\text{dB}$.

- Drag the fader as you press the left mouse button.
- Select the fader with the mouse cursor and adjust with the mouse wheel. You can select the steps from the pull-down menu, 'Config' -> 'Mouse Wheel.'

- Select the fader with the mouse cursor and use the up and down arrows of your keyboard.

2. Level Meter

The Level meter displays the signal level of the wave signal. You can see the level of each output to compare them and adjust the level on the basis of these meters. If you wish to send out the wave to an external device, refer to the level meters to adjust the signal to a proper level.

3. Output Level Indicator

The Output Level Indicator shows the current level setting for each of the outputs. You can compare the output levels based on this indicator in order to adjust the output level to a desired level. Move the output level fader to set it to a proper level.

4. MON – Monitoring On / Off

You can use the monitoring button to use 1,2 channel as the Master Output.

3. Master Output

This is the master output volume control fader that controls all outputs of the GIGASation..

1. Level Fader

The Level Fader will change the level of the wave out volume.

You can move the fader in three different ways. Basically, the volume level can be adjusted by $\pm 0.5\text{dB}$.

- Drag the fader as you press the left mouse button.
- Select the fader with the mouse cursor and adjust with the mouse wheel. You can select the steps from the pull-down menu, 'Config' -> 'Mouse Wheel.'
- Select the fader with the mouse cursor and use the up and down arrows of your keyboard.

2. Level Meter

The Level meter displays the signal level of the master output signal. If you wish to send out the wave to an external device, refer to the level meters to adjust the signal

to a proper level.

3. Output Level Indicator

The Output Level Indicator shows the current level setting for the master outputs. Move the output level fader to set it to a proper level.

4. Mute – On / Off Button

The Mute button can mute the total sound of GIGASation.

4. Pull-down Menu Bar

The GIGASation Control Panel includes a pull-down menu bar that contains the configuration for the Control Panel. The menu bar consists of a file menu and a Config menu.

1. File – Exit

File- Exit will terminate the GIGA Station Control Panel applet but it will not shut down the Control Panel. You can launch the Control Panel again by clicking on the GIGA Station icon in your system tray.

2. Config - Mouse Wheel

The Config - Mouse Wheel will control the mouse wheel adjustment. When you use the mouse wheel to adjust the volume level, the adjustment step is set to 0.5dB . You can configure the adjustment steps to your preference.

Step 1 : When you move the mouse wheel one step, the fader will move by 0.5dB.

Step 2 : When you move the mouse wheel one step, the fader will move by 1dB.

Step 4 : When you move the mouse wheel one step, the fader will move by 2dB.

Step 8 : When you move the mouse wheel one step, the fader will move by 4dB.

3. Config –Sample Rate

The Sample Rate option gives you three sample rates which are available for the GIGASStation. The GIGASStation supports 32KHz, 44.1KHz, and 48KHz. The sample rate must be selected here, then the same sample rate has to be set in your application.

4. Config –Latency

This will decide the latency of the GIGASStation. The GIGASStation provides 4 different sample buffer sizes: 64 samples, 128 samples, 256 samples, and 512 Samples. In general, a 64 sample buffer size results in 3 milliseconds of latency.

5. Config –Factory Default

This returns all GIGASStation configurations to their default setting.

6. Always on Top

This will set the GIGASStation Control Panel to always display over the active windows.

If this is not selected, the active windows will be set over the GIGASStation.

CHAPTER 5. Setting up in Audio Applications

This chapter only contains the basic setup for some audio software. For more detailed info, please refer to the manual of the software.

Windows Multimedia Setup

Windows 98 SE/ME

The Windows Multimedia setup is the required setup to use GIGASation as the sound system for a Windows multimedia application.

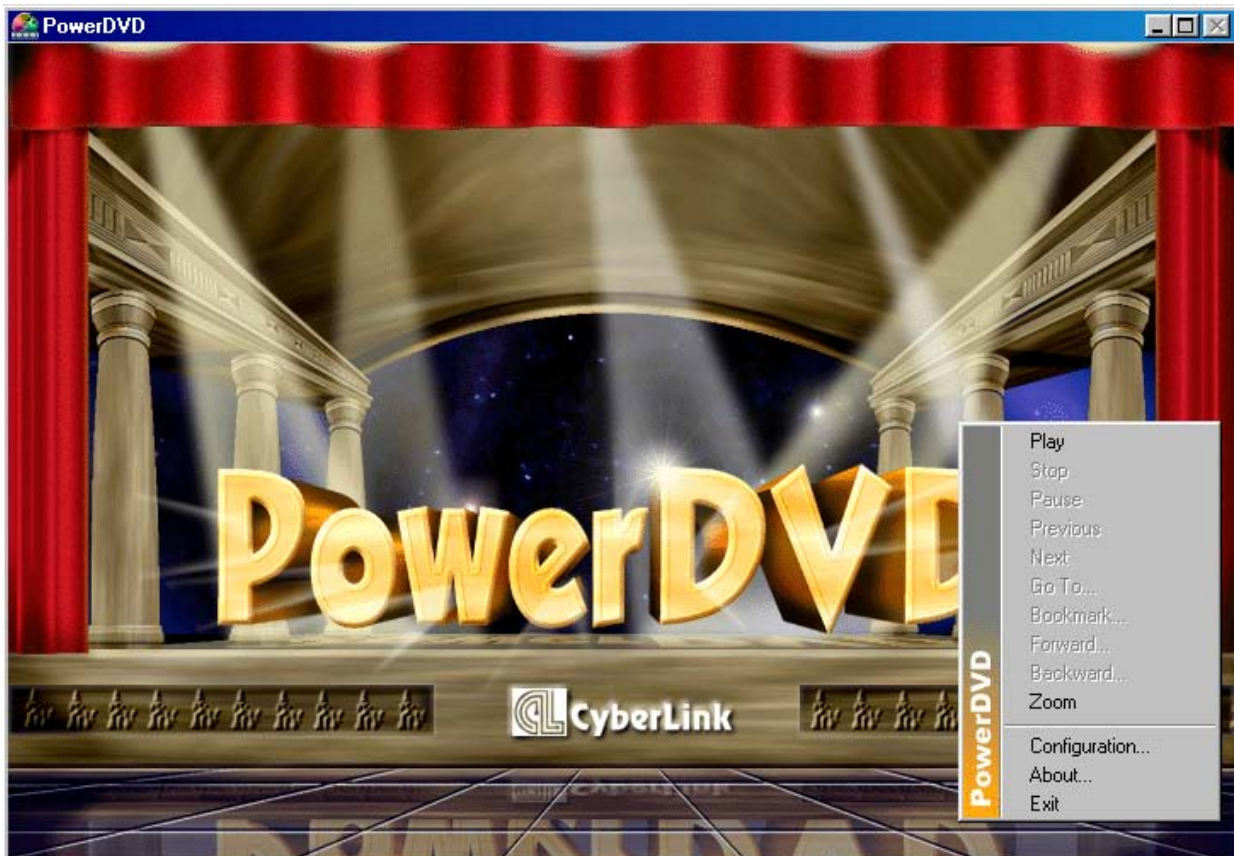
Go to 'My Computer -> Control Panel-> Multimedia-> Audio tab.

Select the GIGASation audio driver as your playback device.



Power DVD

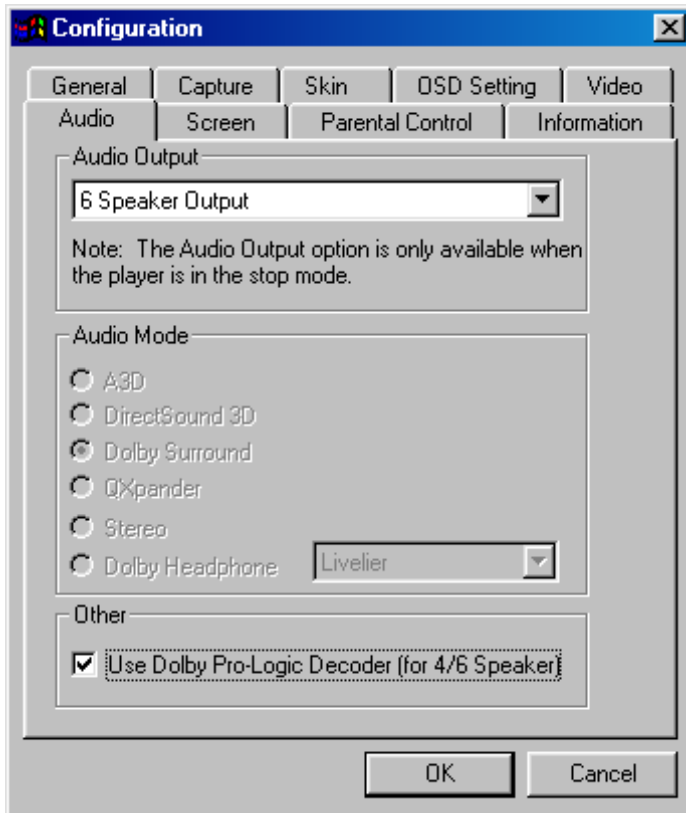
On the Power DVD Main applet, click the right mouse button, and choose 'Configuration.'



Select the 'Audio' Tab.

Select '6 Speaker Output.'

Now you can enjoy 5.1 Ch DVD Sound.



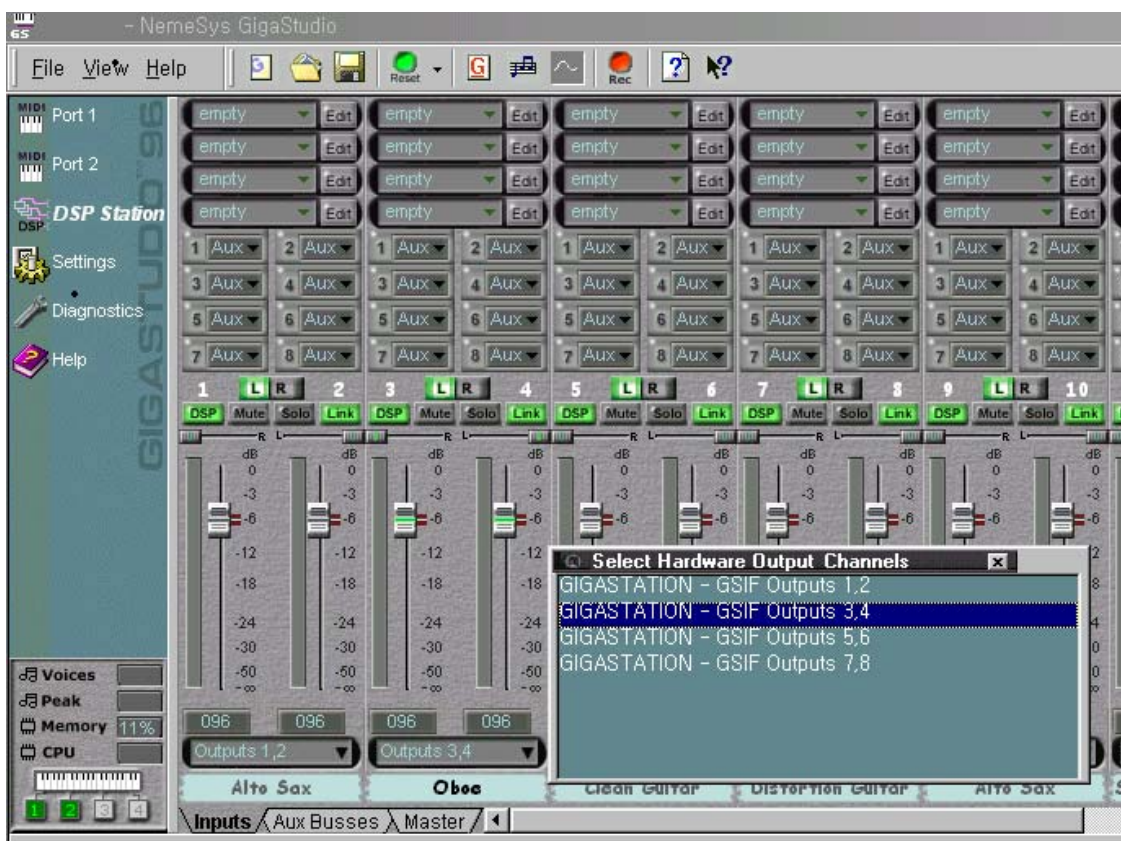
GIGA Studio LE

In GIGASudio LE, select 'Hardware' from 'Settings.'

Choose 'GIGASTATION – GSIF.'

Goto 'Output Enabled' and check the ports that you want to use.

In 'MIDI In ports,' Set the MIDI ports to 'GS2120.'



* GIGA-WIRE

GIGA-WIRE is the driver technology developed by Ego Sys/Audiotrak which routes the output of GigaStudio into the inputs of ASIO. It is not available for WDM because GIGA-WIRE is a dynamically loaded driver like ASIO. You can record directly from Cubase and insert all VST plugins into Cubase under the channels streaming from Giga Studio.

However, there are some limitations to consider and here are some steps to follow:

- GIGA-WIRE will only work with GigaStudio v2.2.41 or higher. With this version of GigaStudio, all latencies in the Control Panel can be used (eg. 64,128, 256, & 512)
- The priority of GigaStudio -> Settings ->General -> Sequencer -> Priority.
“Priority” should be set to “8.” Otherwise, you will encounter dropouts.

NOTE: This is crucial in order to achieve proper functioning of GIGA-WIRE!

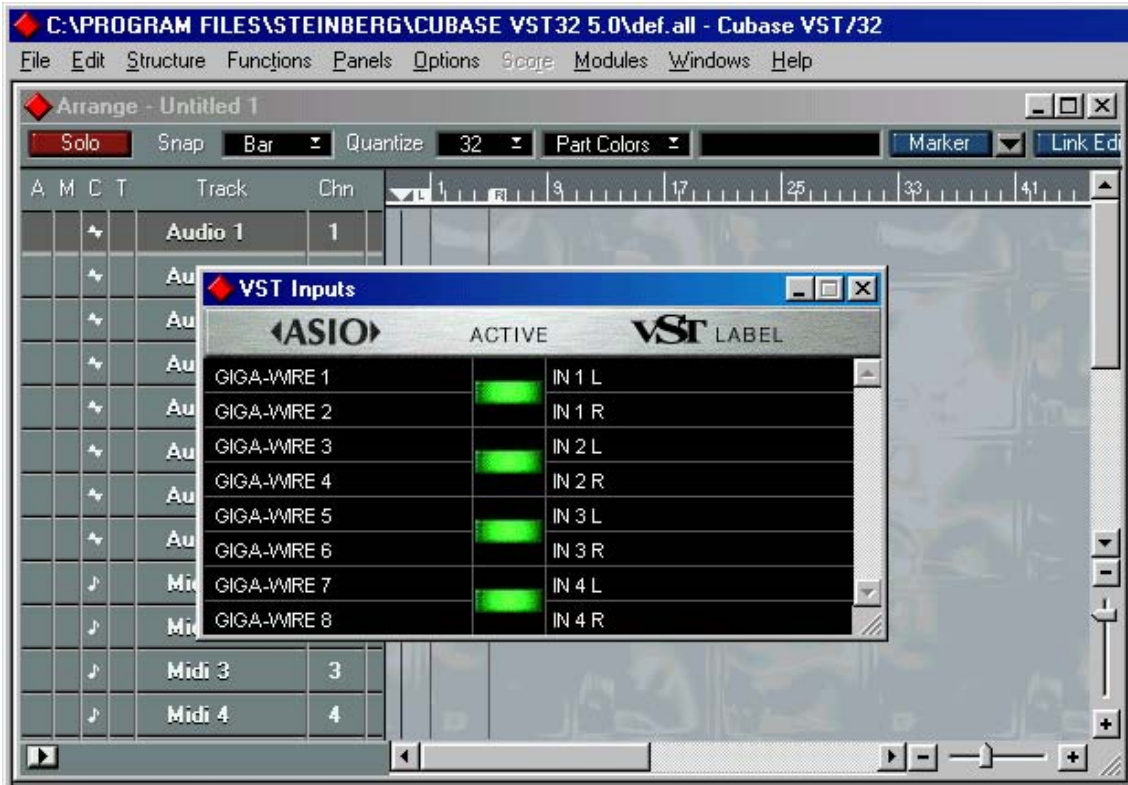
- We recommend you to set the latency in the Control Panel:

64 or 128 samples – for 1 track of real-time keyboard inputs.

256 or 512 samples – for recording or mixdown projects.

Here is an example:

1. Start GigaStudio V 2.2.41 (or higher).
2. Load a sample.
3. Start Cubase.
4. Open Cubase -> Panels -> VST inputs.
 - It should now be possible to see GIGA-WIRE. (IF you didn't start GigaStudio prior to Cubase, GIGA-WIRE will not appear under the VST Input Panel.)
5. Select a GIGA-WIRE input.



6. Open VST -> Options -> Audio Setup -> Systems.

Select Monitoring as "Tape Type" or "Record Enable Type."

7. Set ASIO Device as "ASIO 2.0 – GIGASation."

8. Open VST -> Panels -> VST Channel Mixer 1.



9. Set the input channel as “Monitoring ACTIVE.”

NOTE: Ensure that you set the correct input for monitoring GIGA-WIRE.

For example, if you select input 2 under the VST inputs, you must select the same thing in the channel mixer input section of Cubase.

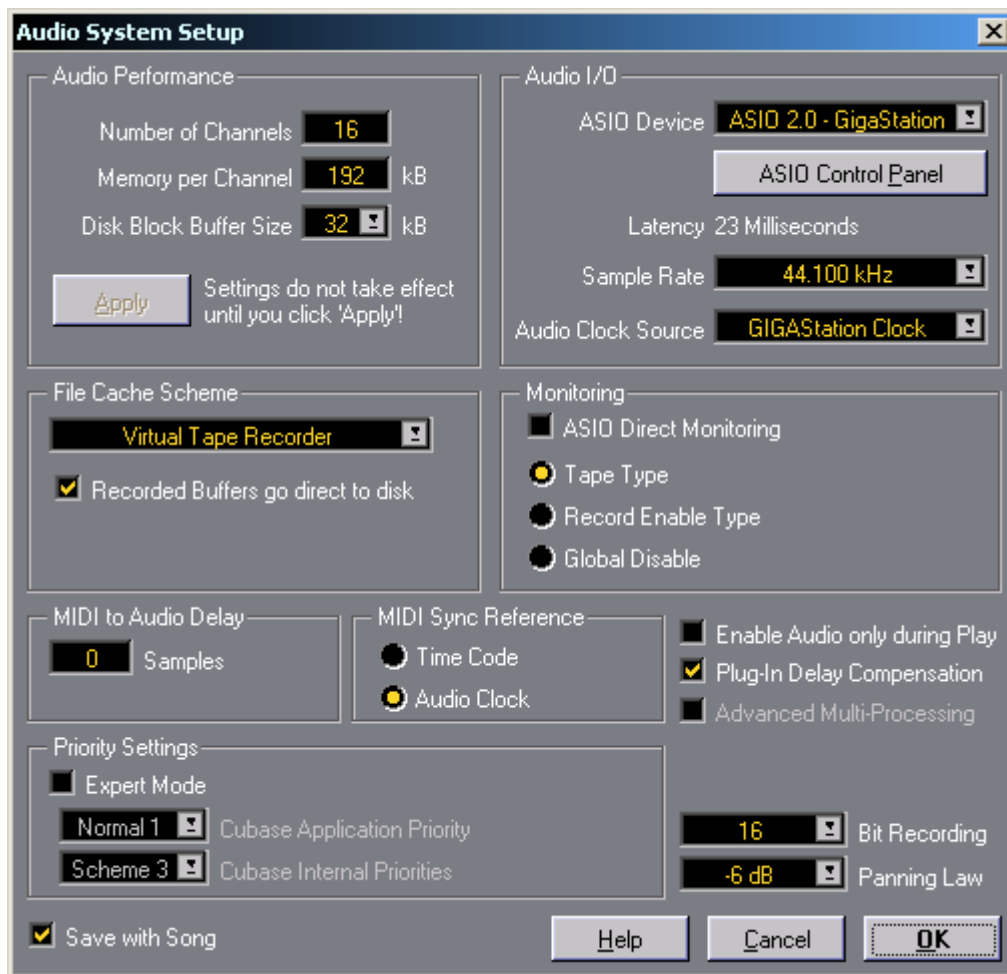
10. If you press a key on your midi-controller, you will hear sound streaming directly from GigaStudio into Cubase.

11. You can add any plugins in VST to set effects on the sound streaming from GigaStudio.

CUBASE (ASIO v.2.0)

After launching Cubase, go to 'System' under the 'Audio' Menu.

Select 'ASIO2.0- GIGASation' for the Audio Device and 'GIGASation Clock' for the Audio Clock Source.



Specifications:

1. Output LEVEL: -10dBV Unbalanced, -10dBV Nominal, +6.5dBV Max

2. Output Impedance: 100 ohm

3. Output Attenuation: Analog -34.5dB ~ 0dB, 0.5dB Step Size

4. Master Output Attenuation: Analog -34.5dB ~ 0dB, 0.5dB Step Size

5. Sample Rate: 32KHz, 44.1KHz, 48KHz

6. D/A Specs:

- 1) Resolution: 20 Bits**
- 2) Dynamic Range: 90 dB A-Weighted (Typical)**
- 3) THD+N: -86 dB Fs (Typical)**
- 4) Frequency Response: 20 ~ 20KHz**

7. Digital Out Specs:

- 1) Type: Coaxial connector**
- 2) Format: IEC-958 Consumer S/DIF**
- 3) Sample Rate: 44.1 KHz, 48KHz**
- 4) Resolution: 16 Bits**

Hard Disk Sampler Tool Kit

GIGAStation

Owner's Manual

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