CobraNet PCI(e) Sound Card Quick Start Guide

PCI cards ASI6416, ASI5416, ASI5408
PCIe cards ASI6316, ASI5316, ASI5308
With Driver 4.04 and up

Terminology: Throughout this document, "CobraNet sound card" refers to any of the above listed cards. The term "CobraNet network" in this document can be a permanent CobraNet network or a temporary one set up with a small switch specifically for testing/configuration purposes.

1 Introduction

This document explains how to set up a CobraNet sound card in a Windows PC for testing/configuration purposes. For additional information on AudioScience CobraNet sound cards, please refer to the datasheets on our website www.audioscience.com under Products → Network Products, then click on the links for the specific cards to find their datasheet links.

This document presumes a working knowledge of CobraNet, though details will be given below. The CobraNet sound cards adhere to the CobraNet standard through the use of off-the-shelf CobraNet silicon from Cirrus Logic. More detailed CobraNet information is available from Cirrus Logic's website: http://www.cobranet.info/.

2 What you will need

2.1 A PC, running Windows, with a Network Interface Card (NIC)
2.2 A CobraNet sound card
2.3 One of the three following configurations:

2.3.1 The PC (the one the ASI soundcard is installed in) connected to a CobraNet network (via its NIC and an Ethernet cable) and the ASI soundcard connected to the same CobraNet network (via its RJ-45 connector and an Ethernet cable)

or

2.3.2 The PC (the one the ASI soundcard is installed in) connected to the ASI CobraNet soundcard via a crossover cable

- Note: The PC must have a static IP address since no DHCP server is available, as there must be a valid network path from the PC to the CobraNet sound card in order for ASIControl to configure the CobraNet portion of the sound card.

or

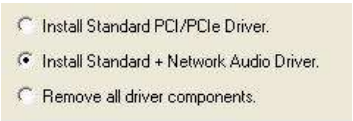
2.3.3 A laptop connected to the CobraNet soundcard via a crossover cable

- Note: The laptop must have a static IP address since no DHCP server is available, as there must be a valid network path from the PC to the CobraNet sound card in order for ASIControl to configure the CobraNet portion of the sound card.

2.2 AudioScience Windows WAVE, WDM, or Combo driver EXE, v4.04.00 or later (for drivers, go to www.audioscience.com and under Download click on Windows Drivers; older drivers can be obtained from a link at the bottom of this web page).
2.2 ASIControl (installed when you run the AudioScience driver EXE)
2.3 Another CobraNet device on the CobraNet network to receive/transmit bundles to/from the CobraNet sound card

3 Installation

3.1 With your PC turned off, install and secure the CobraNet sound card. Start the PC, cancel out of the Windows Found New Hardware Wizard if it comes up, and double-click the driver EXE to run it. The driver EXE will display the image to the left; always pick **Install Standard + Network Audio Driver** when installing an AudioScience CobraNet sound card. A reboot is required after installing the driver.



3.2 Using Ethernet cables, connect the CobraNet sound card/PC/laptop as stated in 2.3.1, 2.3.2, or 2.3.3 above.

3.3 Double-click on the ASIControl shortcut on the desktop.

3.3.1 An **Interface Selection** dialog box will pop-up; select **Local PCI(e) + Networked adapters** then click **OK**. (This dialog box can also be accessed from ASIControl's menu item **Options**, then **Configure adapter interface**.)

3.3.2 Click on ASIControl's menu item **Options** and select **Configure Network Interface and Auto-IP Assignment Range.**

3.3.2.1 If more than one NIC in the PC, select the correct one to use in the **top Network Adapter** portion of the dialog box.

3.3.2.2 In the **CobraNet IP Address Assignment** section, check the **Enable dynamic CobraNet IP address assignment** then click **OK**. ASIControl will restart and an IP address will be assigned to the CobraNet sound card.

3.3.2.2.1 Note that the IP address range must be in the same subnet as the PC/laptop.

3.3.2.2.2 Note that a static IP address can be assigned later by right-clicking on the CobraNet sound card in the top of ASIControl for the **CobraNet change IP address** dialog box.

3.3.3 Click on the CobraNet sound card in the top pane and you should see the 'topology' view of the CobraNet sound card in the left pane. Clicking on a 'node' in the left pane will bring up its information in the right pane. See the ASIControl manual (found in Programs→AudioScience→ASIControl) and the CobraNet sound card datasheet, for information on controls and nodes.

3.4 To set up CobraNet Transmitters (outputs) and Receivers (inputs), right click on the CobraNet sound card in the top pane of ASIControl and select **Configure CobraNet**. Assign bundle numbers, change latency, set persistence, etc., here.

3.4.1 Some things to consider:

3.4.1.1 It is recommended to set the **Persistence** setting to on.

3.4.1.2 Transmitter 1, 2, 3, etc. correlates to Receiver 33, 34, 35, etc., as per the CobraNet Routing Primer: http://www.cirrus.com/en/pubs/appNote/CobraNet_AudioRoutingPrimer.pdf

3.4.1.3 Multicast bundle numbers range from 1-255 and Unicast bundle numbers range from 256-65279.

3.5 Configure the other CobraNet device on the network to transmit/receive to/from the CobraNet sound card.

Please refer to the ASI53xx/ASI6316 datasheet for details on their syncing capabilities.

If you have any questions about the above, please send an email to support@audioscience.com.

If you have questions about CobraNet in general, please visit http://www.cobranet.info/.

If you are having issues with your CobraNet sound card, please send specific details to support@audioscience.com.

Thank you for choosing AudioScience products.

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