

***ASIO 2.0 Driver
for Mykerinos
User Guide***



Pyramix 4.3

DIGITAL AUDIO WORKSTATION

 **Virtual Transport**
NETWORKED SYNCHRONIZATION SYSTEM

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Asio 2.0

Introduction

This guide describes the installation and operation of the ASIO 2.0 driver for the Mykerinos board. In order to make full use of all the capabilities of the ASIO driver, you should also be familiar with the Pyramix Virtual Studio mixer. Please refer to the Pyramix User manual for a description of the mixer.

System Requirements

The ASIO driver only works with Windows NT 4.0 with Service Pack 5 or higher, Windows 2000 or Windows XP Pro.

Installation

The ASIO 2.0 Driver is automatically installed during the normal Pyramix Virtual Studio software installation. No further driver(s) are required.

Basic Concepts

The fundamental principle of this ASIO driver is audio signals to and from the Asio application are always routed through the Virtual Studio mixer. Software using the ASIO driver does not access the physical I/O's of the Mykerinos card directly, instead it addresses VS3 mixer channels. So, in order to be able to address all of the available I/O of the Mykerinos card, the mixer must be configured in such a way that there is a strip for each ASIO I/O. The advantage of this solution is that the Mykerinos DSP capabilities and all the native plug-ins can be used.

For technical reasons the mixer uses slightly more DSP processing resources when used in conjunction with the ASIO driver compared with the Pyramix Virtual Studio Application.

When ASIO 2.0 driver for Mykerinos is active, a Pyramix icon appears in the Windows task bar.



To open the mixer, right-click with the mouse on the icon and select **Show Mixer** in the popup menu. Doubleclicking the icon also opens the mixer (or closes it, if it is already open).

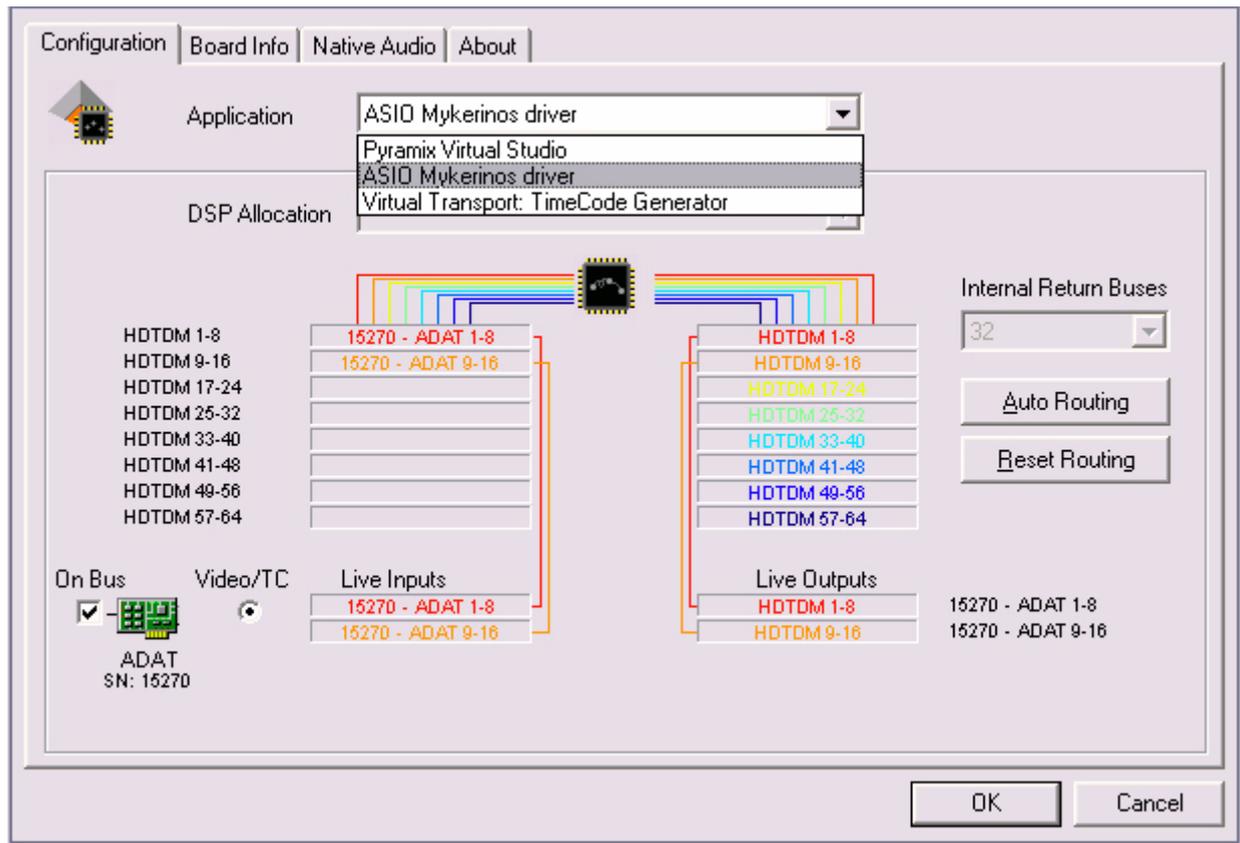


The ASIO 2.0 Driver From 3rd Party Applications

As of today, the ASIO 2.0 driver has been tested with Steinberg Nuendo 2.0 and Cubase VST 5.0. The following descriptions explain how to activate and use the driver from within one of these applications, in the this case Nuendo 2.0.

VS3 Set-up

Before configuring the mixer or launching your application open the VS3 Control Panel. Choose **ASIO Mykerinos Driver** from the **Application** drop-down list. Click **OK** to close the VS3 Control Panel.



VS3 Control Panel Configuration Page

Selecting the Driver

Steinberg Nuendo

From within Steinberg's **Nuendo** select the menu item **Devices > Device Setup...** . The following dialog box will be displayed:



Nuendo Device Setup dialog

Click the **Setup** Tab if not already selected. Select **VST Multitrack** in the left-hand list by clicking on it. Select **ASIO Mykerinos** in the **ASIO Driver** popup menu. Make any other setup changes as detailed below, then click the **OK** button to confirm the changes.

Clock Source

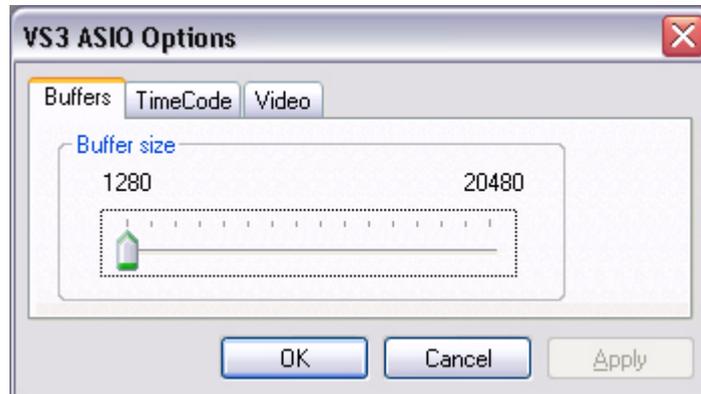
With **ASIO Mykerinos** selected, the setting for **Clock Source** will automatically switch to **Mykerinos Mixer Settings**. Further changes of sampling rate, clock source, etc., have to be made from within the Pyramix Virtual Studio Mixer.

Direct Monitoring

We strongly recommend activating the **Direct Monitoring** check box, because this allows a signal which is being recorded to be routed directly through the **Virtual Studio Mixer** for monitoring purposes, providing a low latency time of around 4 milliseconds. If this box is left unchecked, the signal will be routed through the Nuendo application, resulting in a much higher latency time.

Control Panel

The button **Control Panel** opens the Mykerinos **VS3 ASIO Options** Driver control panel, which can also be accessed via the popup menu in the Task Bar.



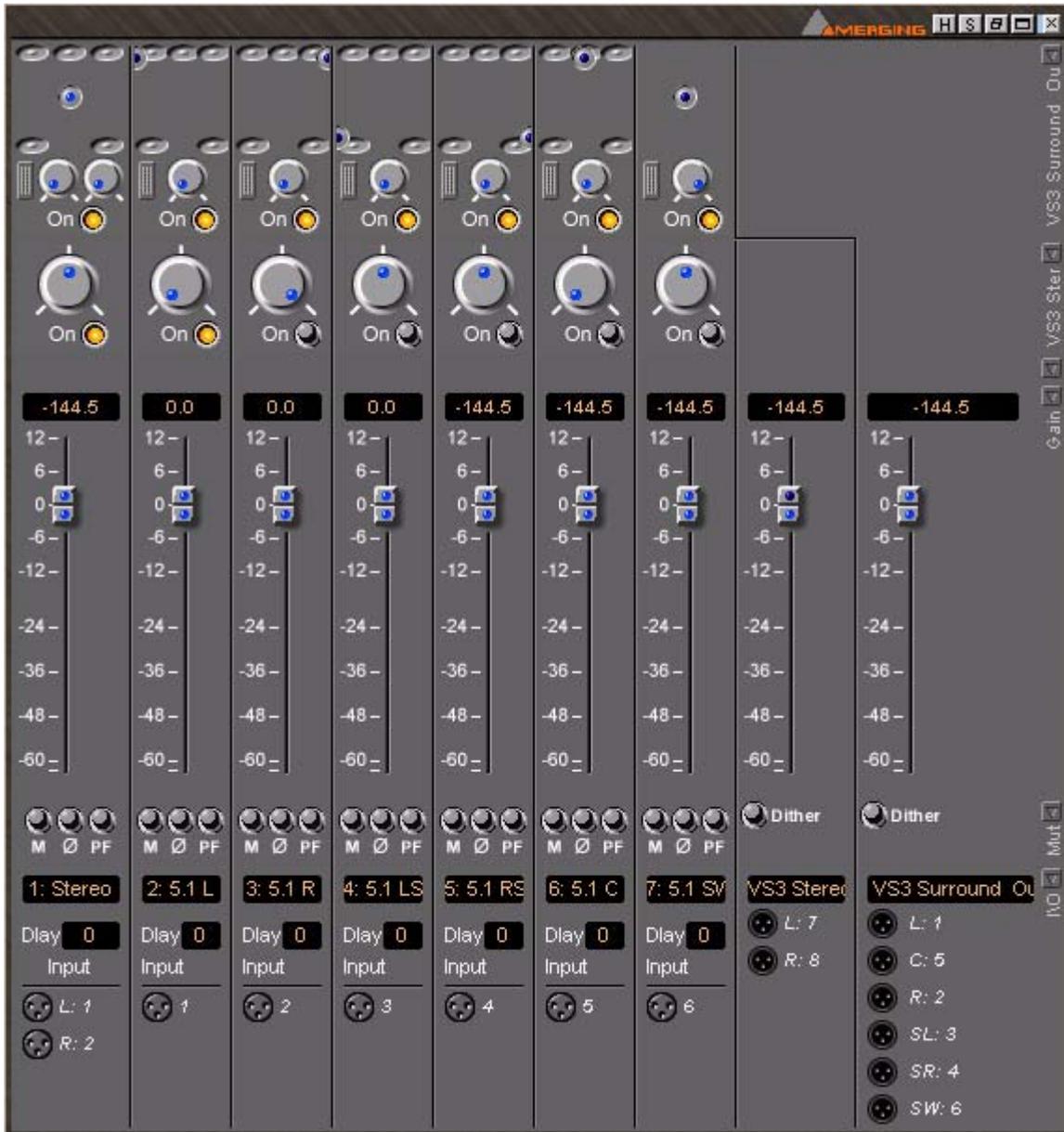
Nuendo Control Panel VS3 ASIO Options dialog

Click on the **Buffers** Tab if the page is not visible. This panel allows the ASIO **Buffer size** to be adjusted. We recommend keeping the default value. If you encounter problems with clicks during playback, increasing the **Buffer size** value might help solve them.

Input/Output Routing

Nuendo presents its mixer and I/O in a somewhat different manner to Pyramix. This is a short description of how to route audio signals between Nuendo and the Virtual Studio Mixer. Please also refer to the Nuendo user manual.

To keep things relatively simple it is assumed there is a Virtual Studio Mixer with one stereo input strip, 6 mono input strips, a stereo mix and 5.1 mix output busses as pictured below:



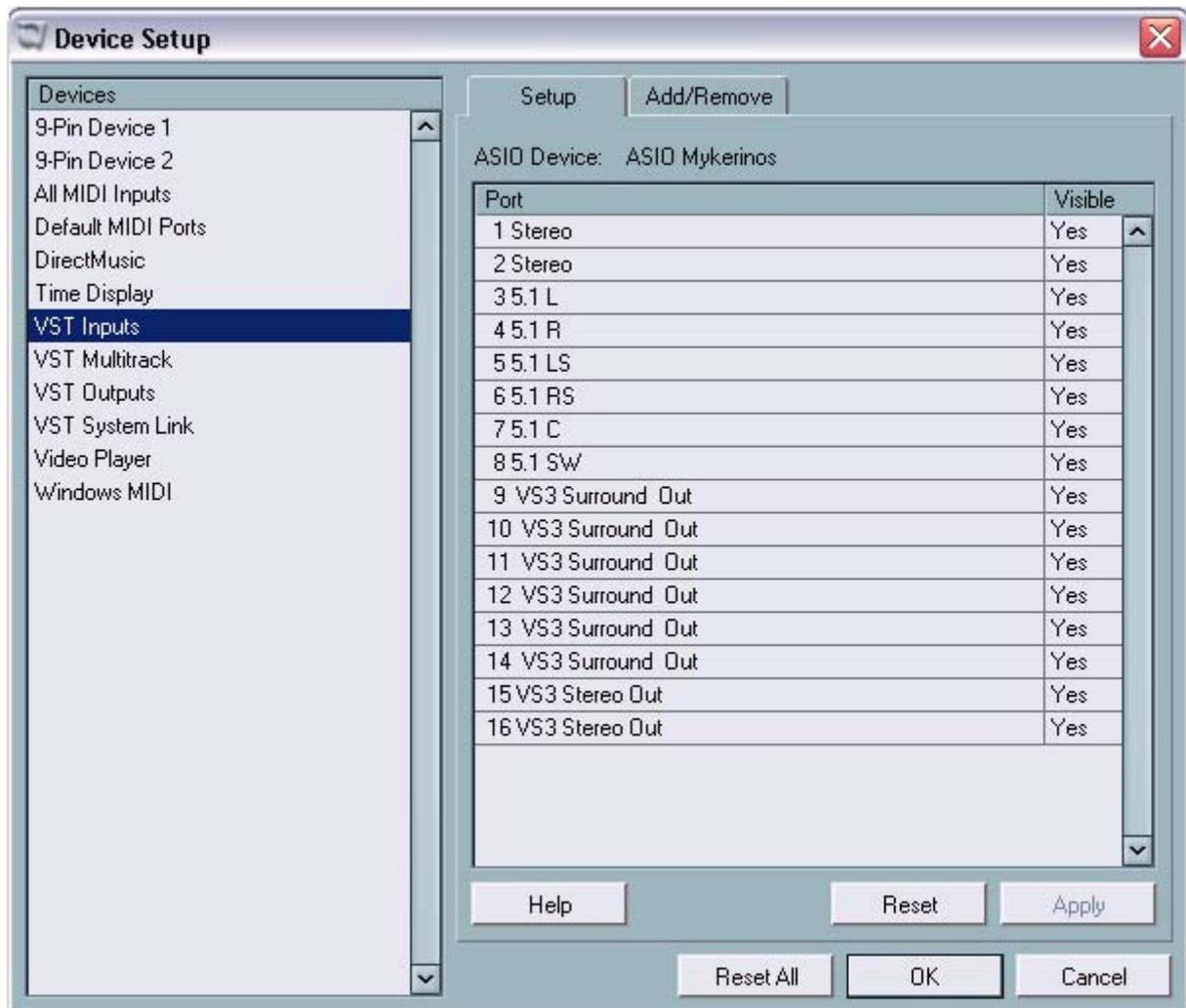
Simple Mixer

Assignments to and from the physical I/O are made in the normal Pyramix manner. Right clicking on the XLR icons pops-up a list with all the valid choices.

Activating and Naming Inputs and Outputs

Setting up Inputs available to Nuendo

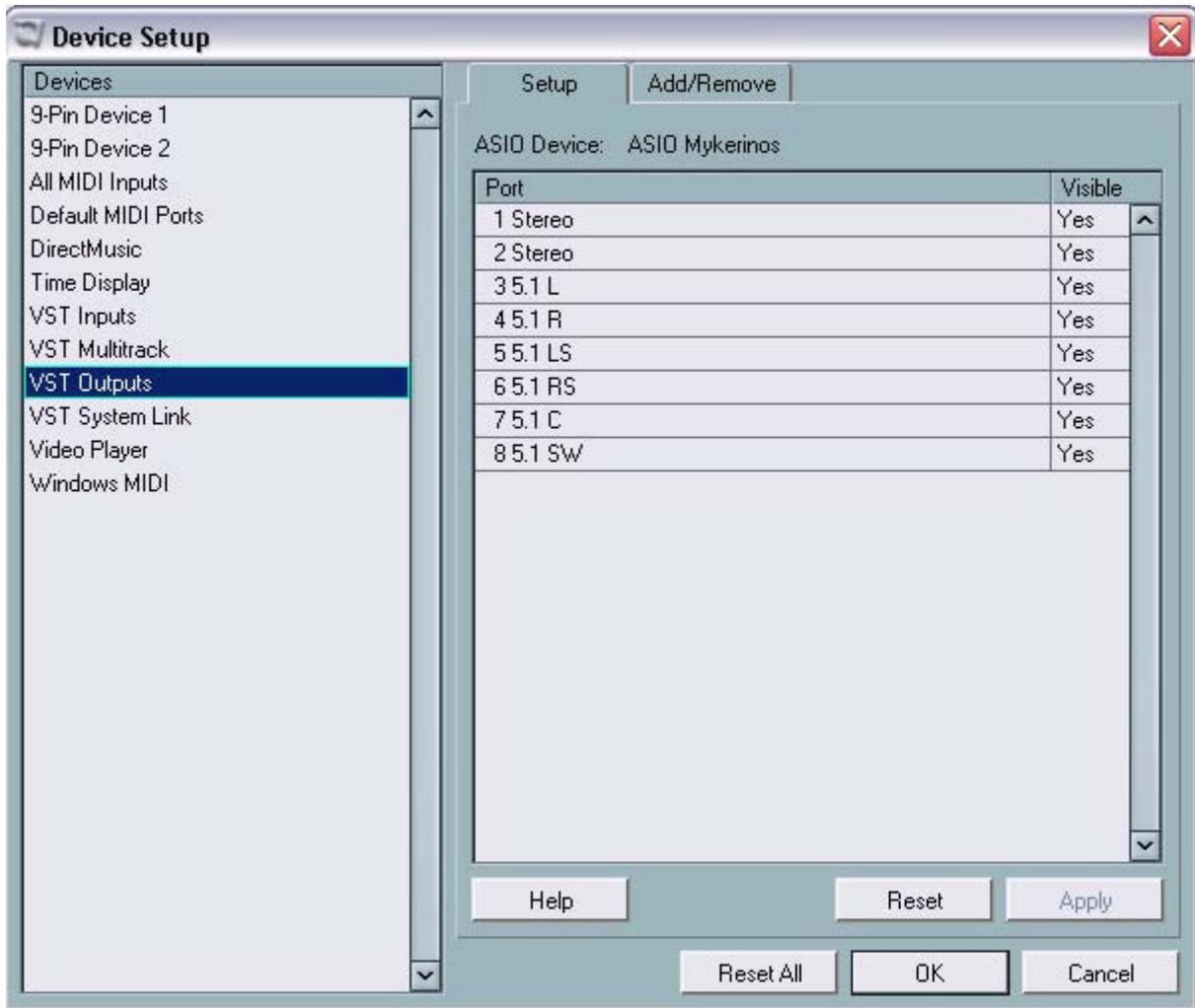
Select the menu item **Devices > Device Setup...** click on **VST Inputs** to display the ASIO **Device Setup** dialog **Inputs** window. Click **VST Inputs** in the left-hand list to select it. All the available input strips of the Virtual Studio mixer are displayed in the right-hand panel. Notice the Virtual Studio Mixer Outputs are also available as sources for Nuendo. You can type in a comprehensive name for each input in the **Port** column. However, it is tidier and less confusing to name the strips in the Virtual Studio Mixer. Clicking on **Reset** will update the Port list in the Nuendo **Device Setup** window to reflect your changes. To enable each Virtual Studio Mixer strip input to appear in the list of available inputs for the Nuendo VST mixer, the **Visible** column has to be set to **Yes** otherwise the output is disabled.



Nuendo Device Setup VST Inputs page

Setting up Outputs available to Nuendo

Setting up the outputs from Nuendo is similar to setting up the inputs.



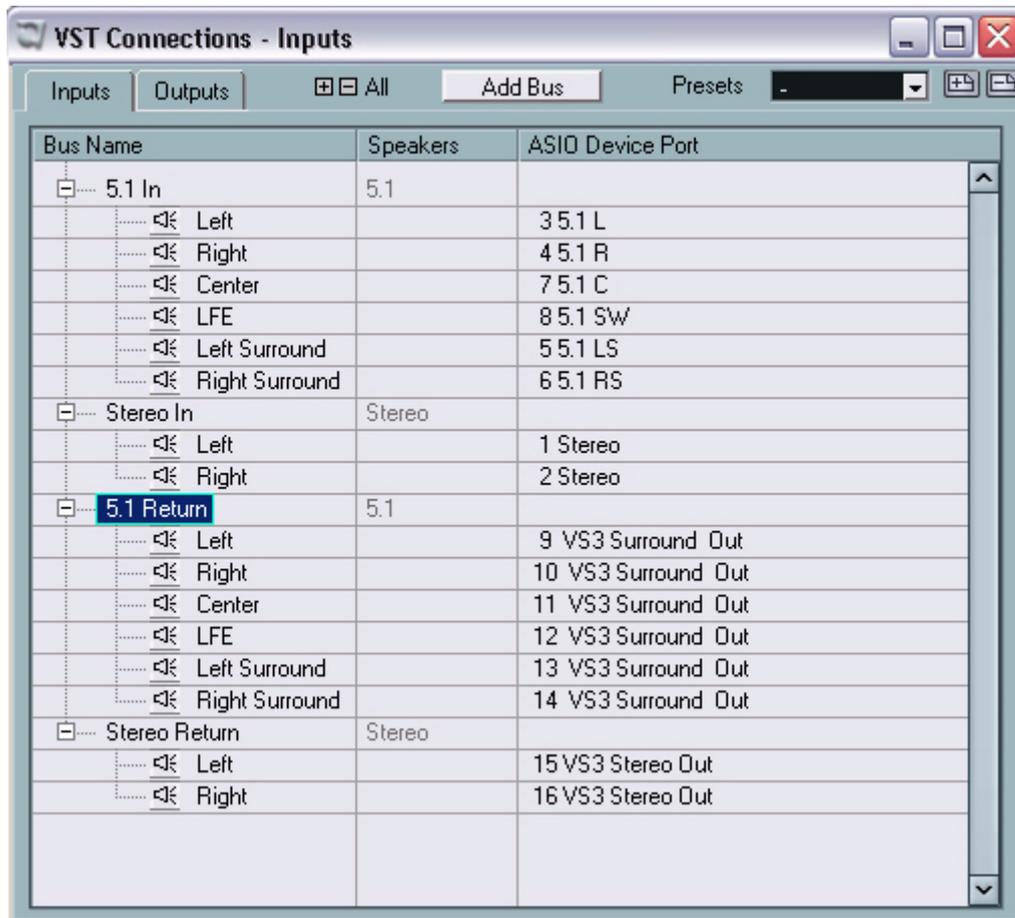
Nuendo Device Setup VST Outputs page

All the output busses specified in the Virtual Mixer will be shown in the right-hand column as available ports. You can type in a comprehensive name for each output in the **Port** column. However, as with the inputs it is tidier to name the strips in the Virtual Studio Mixer. Clicking on **Reset** will update the Port list in the Nuendo **Device Setup** window to reflect your changes.

Similarly, the **Visible** column must be set to **Yes** to make the outputs available to Nuendo.

Assigning inputs and outputs

From here on, all assignment of VST inputs and outputs is made within Nuendo. The **VST Connections** window enables the Asio device ports assigned above to be made available to Nuendo's VST mixer. Display the window by selecting the menu command **Devices > VST Connections** then select either the **Inputs** or **Outputs** Tabs as required. The Asio Device Port columns show all the activated ASIO input and output ports available for routing to and from the VST mixer

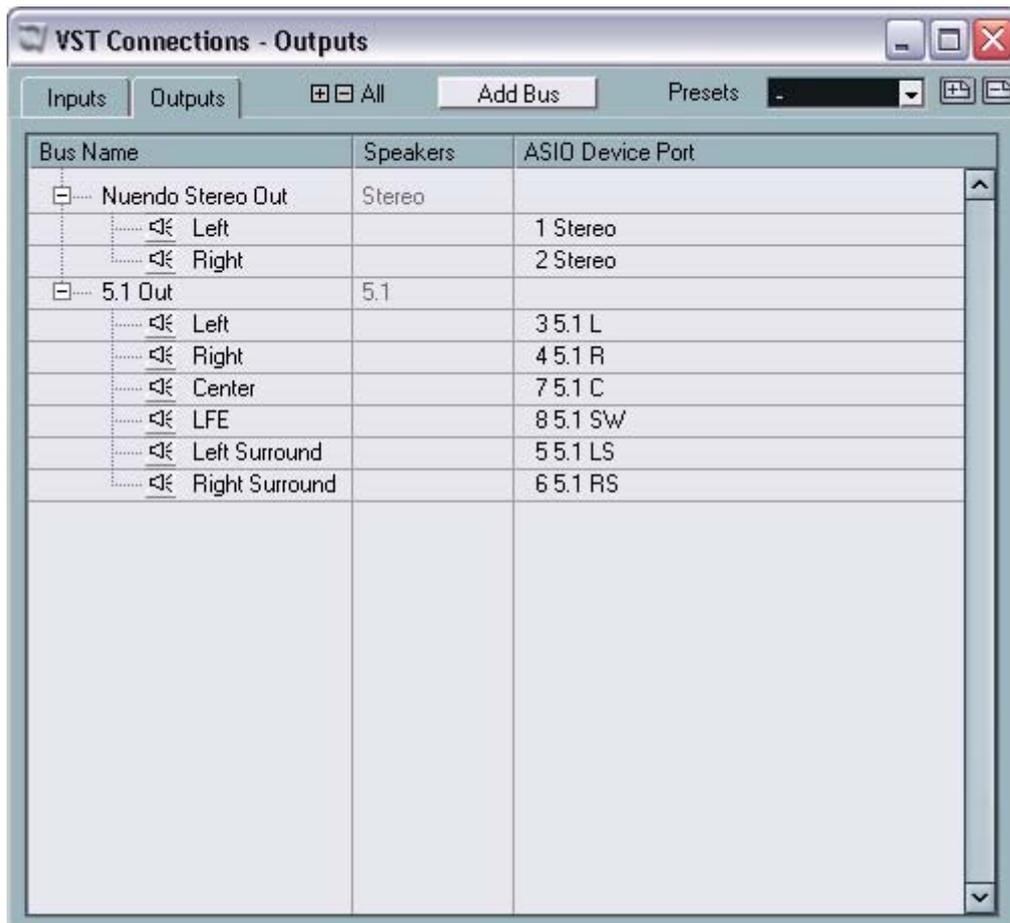


VST Connections - Inputs page

Not Connected
1 Stereo
2 Stereo
<input checked="" type="checkbox"/> 3 5.1 L
4 5.1 R
5 5.1 LS
6 5.1 RS
7 5.1 C
8 5.1 SW
9 V53 Surround Out
10 V53 Surround Out
11 V53 Surround Out
12 V53 Surround Out
13 V53 Surround Out
14 V53 Surround Out
15 V53 Stereo Out
16 V53 Stereo Out

Assignments are made by clicking in the Asio Device Port column opposite the Bus channel you wish to connect. A list pops up showing all valid choices with the current selection ticked. To change the assignment simply click on the port you wish to connect to.

Outputs are dealt with in the same manner..



VST Connections - Outputs page

Note that Nuendo Input and Output busses may be added on these pages by clicking on the **Add Bus** button.

Known Limitations

Routing and Other Changes Take a long Time

This is due to the hardware design and limitations of the ASIO drivers. Due to the design of the ASIO driver the only way of informing the application of new settings is by forcing a reset of the driver. The driver has to be reloaded and this takes a considerable amount of time.

Timecode Input Only

When using the ASIO driver only TimeCode In is supported as an input. TimeCode cannot be generated by the Mykerinos card.

