

Using WaveCenter/PCI with Native Instruments Reaktor

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This application note was created based on:

- Native Instruments Reaktor version 2.3 (Reaktor in this document)
- WaveCenter/PCI driver v2.06 (WCPCI in this document)

Reaktor includes useful help documents and tutorials. Please refer to them for help with topics that are not directly related to WCPCI set-up and use.

MIDI Set-up

Before setting up MIDI ports in Reaktor, make sure WCPCI's MIDI ports are enabled — open the WCPCI control panel, go to the System tab, and verify that the Midi Mode is set to '2x2'. If they were disabled, you'll need to reboot the computer after you change the setting to '2x2'.

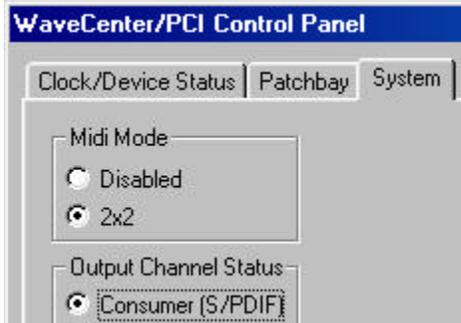


Figure 1

Start up Reaktor, and select the MIDI Settings Setup from the System menu to display the available MIDI ports, as shown in Figure 2.

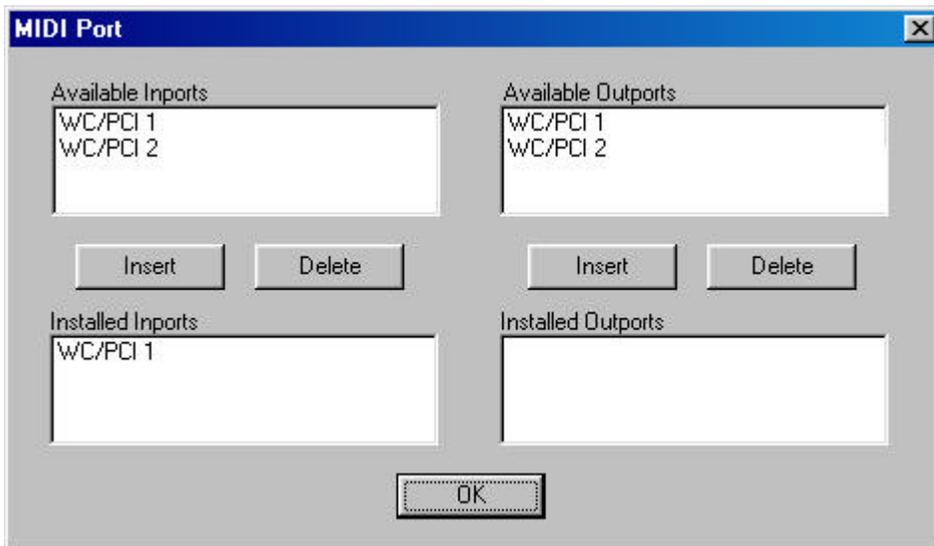


Figure 2

From the Available Inputs field, select the WCPCI MIDI ports you want to use for receiving MIDI data from your controllers and sequencers, and then click the Insert button. If you want to export MIDI data through one of the WCPCI MIDI outputs, select the desired ports and click the other Insert button. The active ports appear below 'Installed Inputs' and 'Installed Outputs'. Click OK to close the window.

Audio Set-up using ASIO

WCPCI comes with both ASIO and MME drivers. The ASIO driver provides the lowest-latency performance, and lets you use all of WCPCI's inputs and outputs. When using the MME driver, Reaktor provides only 2 channels in/out. Therefore, we recommend using ASIO with Reaktor (supported since v 2.3). If you're using an older version of Reaktor, you can upgrade to an ASIO-compatible version through the Native Instruments website (www.nativeinstruments.com).

To use the ASIO driver in Reaktor, go to the System > Audio Port menu, and select 'ASIO' (rather than 'Soundcard'). To specify the ASIO properties, select Audio Settings from the System menu.

In the ASIO properties window, make sure the ASIO WaveCenter/PCI Driver is selected, as shown in Figure 3. The clock setting in Reaktor should be the same as the sample rate setting in the WCPCI control panel (which can be opened by clicking the Open Control Panel button).

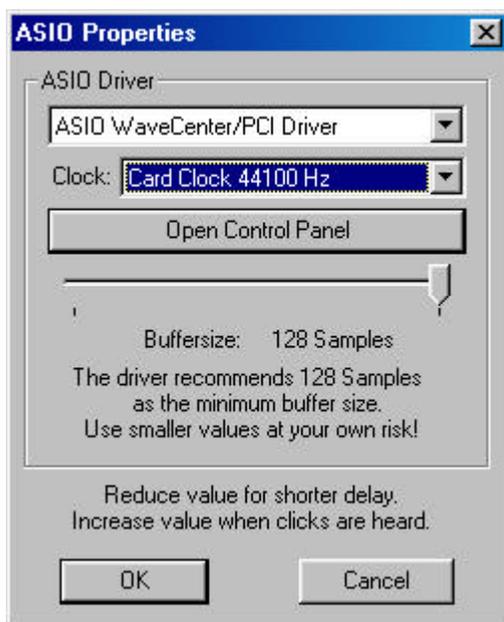


Figure 3

You can reduce latency by dragging the buffersize slider to the left to reduce the number of buffered samples. As stated in the window, this should be done at your own risk — clicks and pops can occur when the slider is set below 128 samples.

You can also adjust the latency by changing the Buffer Size setting in the System tab of the WCPCI control panel. Before changing the values for the ASIO Buffer Size in the WCPCI control panel, you need to close all applications using ASIO (Reaktor in this case). When you restart Reaktor and select Audio Settings from the System menu, the ASIO Properties window still displays the old number of buffered samples, but the message indicates that the driver recommends another number. To update the window, drag the slider to the left and then to the right again.

Reaktor provides you with a maximum of 16 “virtual” audio inputs and outputs. To assign WCPCI inputs and outputs in Reaktor, select Audio Routing from the System menu, and choose the desired setting for each input and output (see Figure 4). Since WCPCI provides you with 10 inputs and 10 outputs (8 ADAT and 2 S/PDIF), up to 10 “virtual” ports can be connected. Because most presets provided by Reaktor and the ensembles built by most users only require 2 outputs (one left and one right), we recommend assigning audio outputs 1 and 2 to the WCPCI outputs that are connected to your monitoring system. In Figure 4, these are both S/PDIF channels. When you finish assigning inputs and outputs, click OK to close the Audio Routing window.

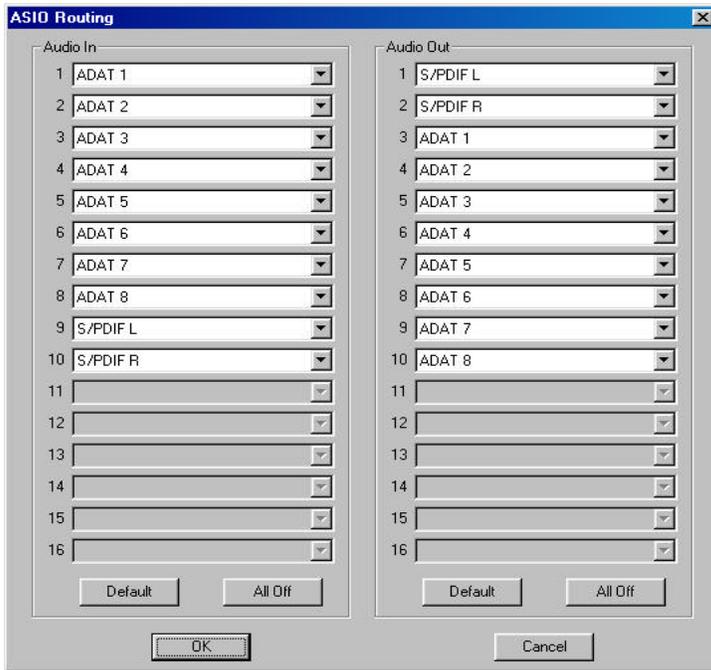


Figure 4

Audio Set-up using MME

To use WCPCL's MME driver in Reaktor, go to the System > Audio Port menu, and select 'Soundcard' (rather than 'ASIO'). Select Audio Settings from the System menu to display the Soundcard Properties window (Figure 5), and specify the desired stereo input and output. You can move the sliders to the left to reduce latency, but if you get clicks and pops in your audio, you'll need to move the sliders toward the right.

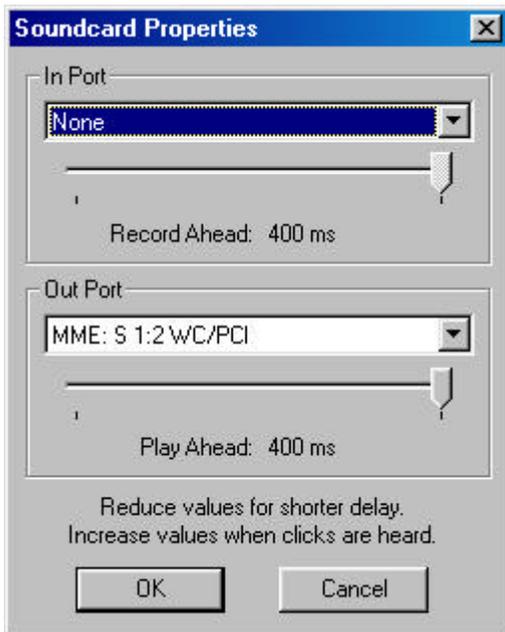


Figure 5