

Using WaveCenter/PCI with Vision on the Macintosh

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This application note was created based on:

- Opcode Vision version 4.2.1 (Vision in this document)
- WaveCenter/PCI driver v1.0 (WCPCI in this document)

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

Vision lets you use all 10 WCPCI inputs simultaneously (8 ADAT optical + 2 SPDIF coax). The number of tracks you can actually record is determined by the speed of your computer and hard drive.

Before starting Vision

After you've downloaded the WCPCI drivers from our website (www.frontierdesign.com/pr_WCPCI_drivers.htm) and installed the driver components, open the "Install in ASIO Drivers" folder, and copy the "ASIO Frontier 16-bit" and "ASIO Frontier 24-bit" files into Vision's ASIO Drivers folder.

To use WCPCI's MIDI ports, make sure you have the latest OMS software installed. If necessary, you can download it from Opcode's website (www.opcode.com/products/oms). Follow the instructions in 'OMS_2.3_Mac.pdf' and 'OMS Making a Studio Setup.pdf' (www.opcode.com/dl) to create your studio setup document.

Once your studio setup document has been created, use the "Test Studio" feature of OMS (in the Studio menu) to prove that the card is functioning and the output cabling is correct. When this feature is on, clicking on a device in the OMS studio setup sends random MIDI notes to the device. When you send MIDI to a port, you'll hear "MIDI received" from the Macintosh speaker.

We recommend that you set Vision's memory size to at least 18506K, and turn off Appletalk and Virtual Memory.

To set the application memory size:

1. Make sure Vision is not running.
2. Open the Vision folder, and click on the Vision icon to select it.
3. From the File menu, select 'Get Info' (or 'Get Info > Memory').
4. When the Get Info dialog appears, set the Preferred Size to at least the suggested size.
5. Close the dialog box. The new setting will be used the next time you start Vision.

To turn off Appletalk and Virtual Memory:

1. From the Apple menu, select 'Chooser.'
2. When the Chooser window appears, set Appletalk to 'Inactive.'
3. From the Apple menu, select 'Control Panels > Memory.'
4. When the Memory window appears, set Virtual Memory to 'Off.'

Audio Set-up

To use WaveCenter/PCI's ASIO driver with Vision, select "Audio System > Acadia" from Vision's Audio menu (Acadia is Vision's name for ASIO). Then open the Audio menu's "Hardware Setup..." dialog (see Figure 1) and set the Device to either 'ASIO Frontier 16-bit' or 'ASIO Frontier 24-bit.' If you're doing 16-bit recording, you can select either ASIO driver, but the 16-bit driver is a bit more efficient. To record or play back with 24-bit resolution, you must use the 24-bit driver.

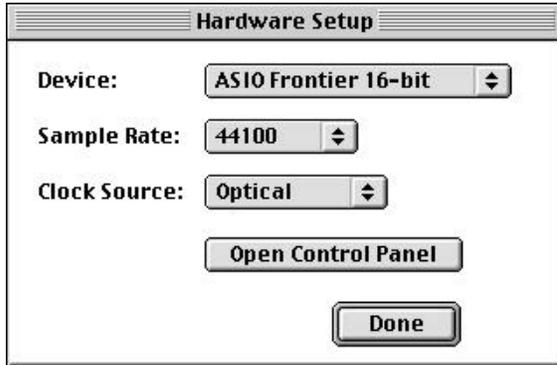


Figure 1

The "Hardware Setup..." dialog also lets you select the appropriate Sample Rate and Clock Source. It's important that your digital audio system has exactly one audio clock master (set to "Internal"), and that all other devices are slaved to that master device. For more details, please refer to "Synchronization" in the WaveCenter/PCI User's Guide.

MIDI Set-up

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

To enable WCPCL's MIDI ports in Vision, go to the Setups menu, select "Enable Input Devices..." and then select the desired MIDI port(s) as shown in Figure 3.



Figure 2

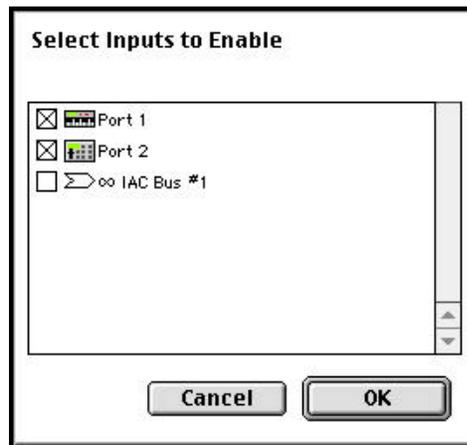


Figure 3

Audio Recording and Playback

1. From the Windows menu, select “Audio Instruments” to open the “Audio Instruments & Routings” window.
2. The WPCI audio inputs are listed in the bottom section of the window. Click the check box(es) next to the input name(s) to enable the desired WPCI audio input(s).
3. From the Windows menu, select “Record Monitor” to open the “Record Monitor” window (Figure 4).

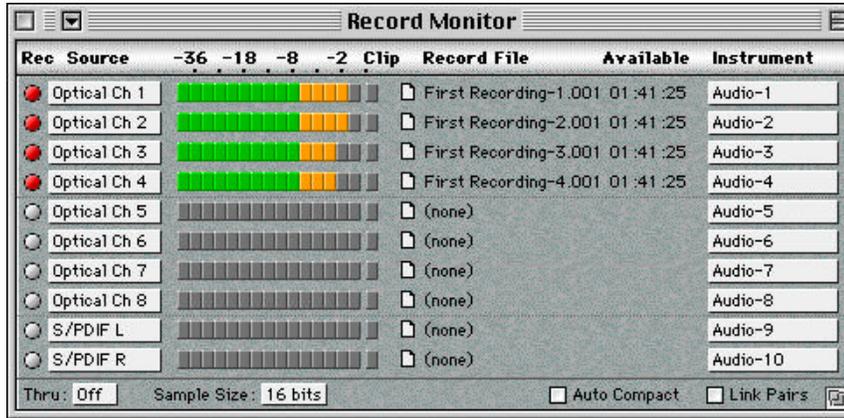


Figure 4

4. In the Source column, select the desired input for each track you want to record.
5. To enable one or more inputs for recording, click the appropriate buttons in the Rec column.
6. When you click a Rec button, a dialog box appears (Figure 5). Select the desired folder, type a filename for the recording, and click Save.
7. Send audio to the selected inputs. The meters in the Record Monitor window display the level of the incoming audio.
8. Leave the Record Monitor window open. In the Tracks window, click the appropriate “R” button to enable a track for recording, as shown in Figure 6.

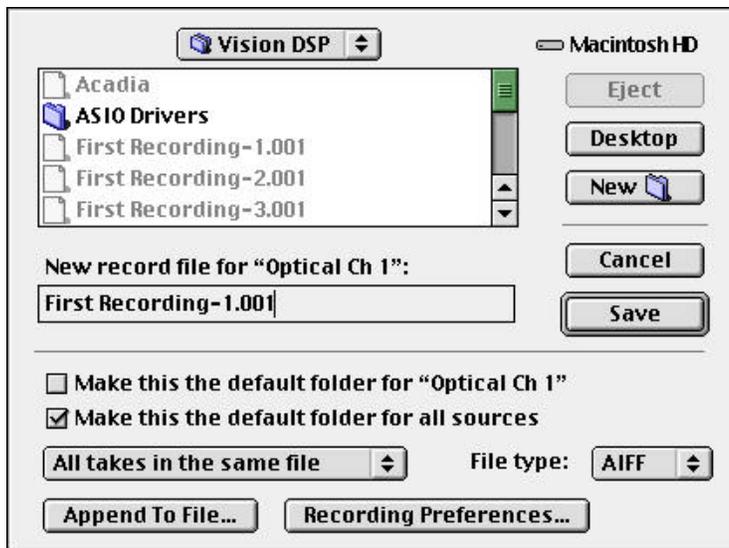


Figure 5



Figure 6

>> continued >>

9. To start recording, click the Record button in the Transport window. Note: There are two recording modes available in the Transport window — “Wait for note” and “Countoff.” If “Wait for note” is selected, recording does not begin until a MIDI note is received. If “Countoff” is selected, recording begins after a specified number of bars.
10. When you finish recording, click the Stop button. A block of recorded data appears in the Tracks window, as shown in Figure 7.

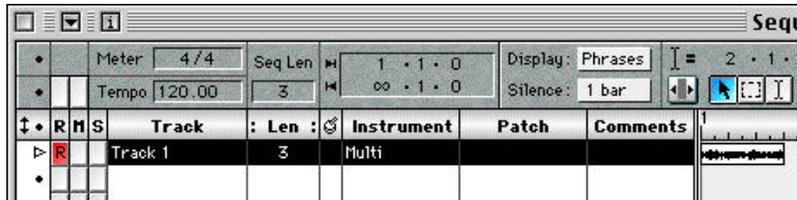


Figure 7

11. To view the waveform of the recording, double-click on the recorded block to open the Track View window (Figure 8).
12. To play back the recording, click the ‘Play from Start’ button in the Transport window.

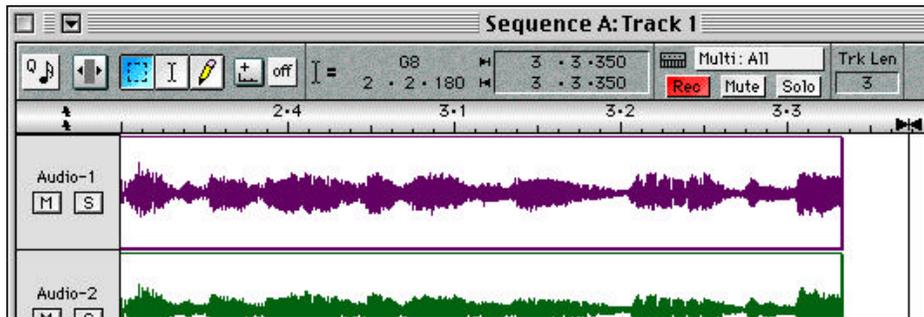


Figure 8

MIDI Recording and Playback

1. In the Tracks window, click the appropriate 'R' button to enable a track for recording.
2. Select a MIDI port/channel from the popup menu in the Instrument column of the Tracks window, as shown in Figure 9. The MIDI keyboard's current patch should appear in the Patch column.

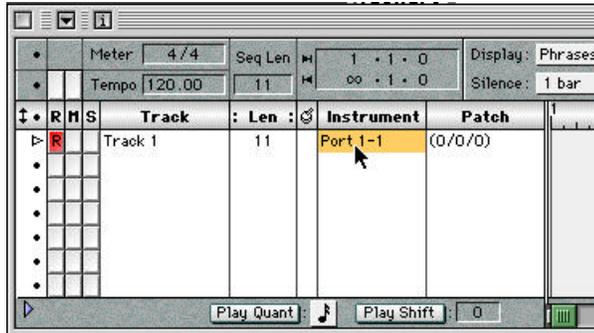


Figure 9

3. In the Transport window, click the Record button. The 'Play from Start' button lights, and the countoff click begins. Play your MIDI controller to start recording.
4. When you finish recording, click the Stop button. A block of recorded data appears in the Tracks window, as shown in Figure 10.
5. To view the recorded MIDI data, double-click on the recorded block to open the Track View window.
6. Click the 'Play from Start' button in the Transport window to play back the recording.

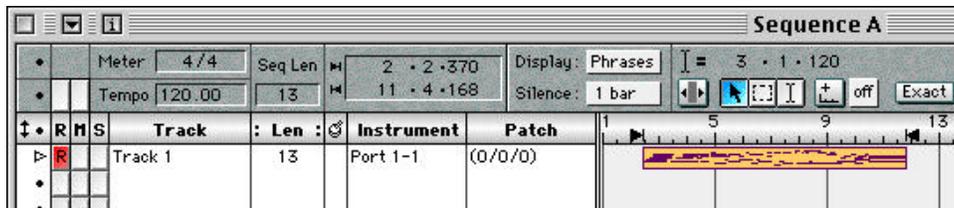


Figure 10

MIDI Thru and Local On/Off

When "Keyboard Thru" is checked in the Setups menu, your controller's MIDI output is sent 'thru' the sequencer to the MIDI port and channel of the ready MIDI track. This allows you to select a track, and when you play your MIDI controller, you hear the selected track's sound.

Most MIDI keyboards let you disconnect the keyboard's MIDI output from its sound module, by using 'Local' mode which essentially separates the keyboard into two parts — the keyboard and the sound module.

When you're using the Keyboard Thru feature, the MIDI keyboard's Local mode should be OFF. Please refer to the keyboard's documentation for information on setting this parameter. It's usually found in a "global" or "master" parameter group.