Using WaveCenter/PCI with Dynamo on the Macintosh

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This application note was created based on:

- Native Instruments Dynamo version 1.0.1 (Dynamo in this document)
- WaveCenter/PCI driver v1.0 (WCPCI in this document)

Please refer to the Dynamo documentation for help with topics that are not directly related to WCPCI set-up and use.

Dynamo can use one stereo input in "ensembles" that use external audio input.

Before starting Dynamo

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 Dynamo'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.

We recommend that you set Dynamo's memory size to at least 59137K, and turn off Appletalk and Virtual Memory.

To set the application memory size:

- 1. Make sure Dynamo is not running.
- 2. Open the Dynamo folder, and click on the Dynamo 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 Dynamo.

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

In the System menu, select "Audio Port > ASIO" (Figure 1). When a message appears, suggesting that you quit and restart Dynamo, click "Yes" and then restart Dynamo so the ASIO setting will take effect.



Figure 1

In the System menu, select "Audio Settings..." to display the ASIO Properties window (Figure 2).

In the ASIO Properties window, you can set the ASIO 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.

Make sure the Clock setting in Dynamo is the same as the Clock Source in the WaveCenter/PCI control panel (which can be opened by clicking the Open Control Panel button).

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 256 samples.

| ASIO Driver | |
|---|--|
| ASIO Frontier 16-bit | \$ |
| Clock: Optical | \$ |
| Open Control Pan | el |
| | D |
| Buffersize: 256 Samples | |
| This ASIO driver reccomends minimum buffer size of: 250 | a 6 Samples |
| Use smaller buffer sizes at your o | wn risk!!! |
| If the ASD driver returns the warn 'Hardware not present' then re buffersize is not supported by this | ning ducing the s driver. |
| Some drivers will appear to accept sizes but will crash when buffers a can test this yourself by changing | : smaller buffer ire created. You the buffersize ng' dialog and |

Figure 2

Dynamo is designed to be used with Cubase as a VST-compatible plug-in. If you use it in this configuration, Dynamo's inputs and outputs use Cubase's audio paths. The plug-in is installed in the Cubase VST PlugIns folder when you install the application.



MIDI Set-up

Before setting up MIDI ports in Dynamo, 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' (Figure 3). If they were disabled, you'll need to reboot the computer after you change the setting to '2x2'.

| | OMS Properties |
|--|-----------------|
| | _ Midi Inport |
| | Port 1 🗢 |
| WaveCenter/PCI Control Panel | Midi Outport |
| Lack/Device Status Parcebay System | None |
| C Dirabled C 242 | |
| Output Onannel Status Consumer (S/PDIF) | OMS Setup Close |
| Figure 3 | Figure 4 |

In Dynamo's System menu, select "MIDI Settings..." to display the OMS Properties window (Figure 4). Select the desired MIDI Inport and MIDI Outport. The Dynamo ReadMe file recommends setting the MIDI Inport to "IAC bus" if you want to send MIDI to Dynamo from a sequencer. After selecting the desired ports, click the Close button. If all the setup parameters are correct, the MIDI input indicator in the toolbar should light when you send MIDI to the selected input. If you're using a synthesizer ensemble (rather than a sequencer ensemble), you should hear audio when you play the keyboard.

If Dynamo is not receiving MIDI, open the OMS Properties window again (Figure 4), and click the OMS Setup button. Then click "Edit Custom Setup" and test your MIDI inputs and outputs using the "Test Studio" feature. If OMS doesn't indicate MIDI input and output, your MIDI controller may be the problem.

