

Using WaveCenter/PCI with Vegas

Released 001108

This application note was created based on:

- Sonic Foundry Vegas version 1.0b (Vegas in this document)
- WaveCenter/PCI driver v2.06 (WCPCI in this document)

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

Audio Playback

Unlike many audio applications, Vegas will automatically detect all of the WCPCI inputs and outputs when your WCPCI card is properly installed. Vegas does not route each of its audio tracks directly to WCPCI's outputs. Instead, Vegas uses the concept of bus routing, similar to a pro mixing board. First, you route the audio tracks to any of 26 stereo busses (A through Z). Then those busses are routed to any of WCPCI's outputs.

To load a sound file into Vegas, click on the "Explorer" tab at the bottom left of the Vegas Tracks window, and then drag the desired .wav file(s) from the Explorer window to the Tracks window.

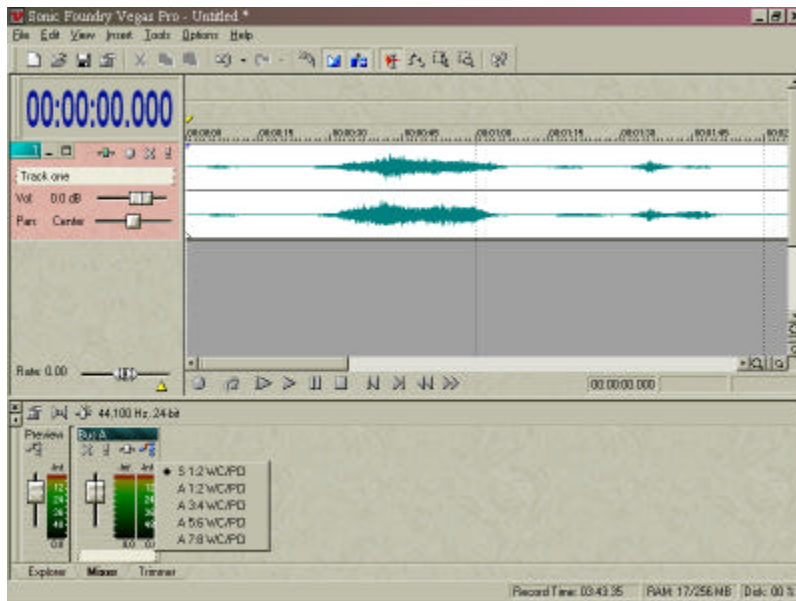


Figure 1

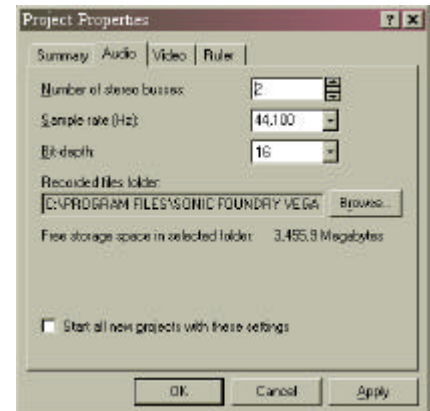


Figure 2

Click on the "Mixer" tab at the bottom of the Tracks window to display the Preview and Bus A meters, as shown in Figure 1. The Preview meter is used for listening to .wav files in the Explorer and Trimmer windows. The Bus A meter is for playing back tracks. By default, track 1 is routed to Bus A. To assign Bus A to a WCPCI output pair, click on the rightmost icon (4 arrows) just above the Bus A meters, and select the desired output pair. The example in Figure 1 shows Bus A assigned to WCPCI's 'S 1:2' (S/PDIF) outputs.

When you add another .wav file to the Tracks window, it will also be routed to Bus A by default. If you want to play each track through separate WCPCI outputs, you need to use additional busses. Select Properties from the File menu to open the Project Properties window (Figure 2), and open the Audio tab. Select the desired number of busses — it's best to set only the number of busses you actually need at a given time (2 in this example). You can also set the sample rate to 44.1 or 48 kHz, and the bit depth up to 24 bits. When the settings are correct, click OK to close the window.

At the left side of the Tracks window, the letter 'A' appears above each track name field. Click on the 'A' for track 2, and select Bus B from the dropdown menu. To assign Bus B to a WCPCI output pair, click on the rightmost icon (4 arrows) just above the Bus B meters, and select the desired output pair. For example, you could assign Bus B to WCPCI's 'A 1:2' (ADAT optical) outputs, as shown in Figure 3.

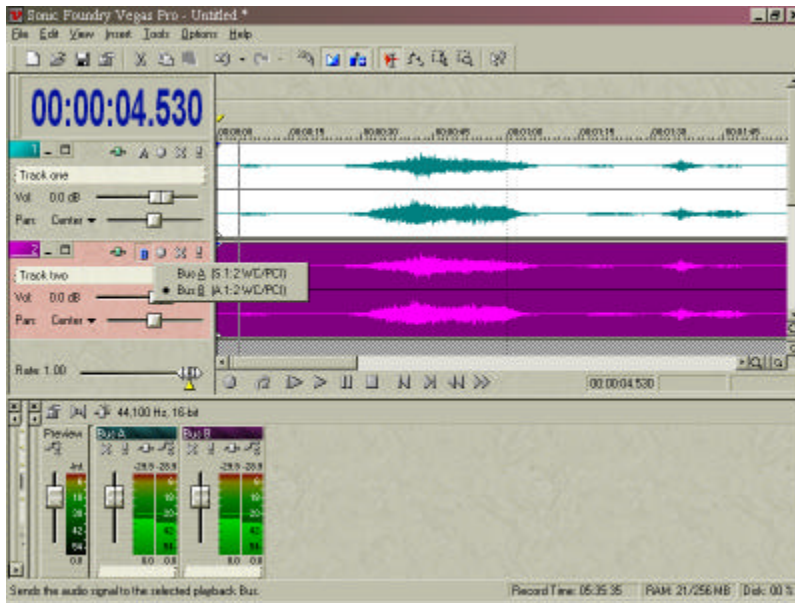


Figure 3

When you click the Play button, the meters for both busses should be active and you should hear audio through WCPCI's S/PDIF and ADAT 1:2 outputs. In this example, we routed each track to a separate bus and to separate WCPCI outputs. But, any number of tracks can share the same bus, and any number of busses can share the same outputs.

To optimize WCPCI's performance with Vegas, select Preferences from the Options menu, and go to the Audio tab of the Preferences window (Figure 4). If you hear glitches in your audio, or if Vegas "locks up", try adjusting the Playback buffering slider. Moving the slider toward the right increases the buffer size, which reduces glitching but also increases latency for real-time functions such as solo, mute, and fader changes. So, the best setting is when the slider is as far as possible to the left without any glitching or lock-ups. Also, to prevent clicks in your audio, keep the 'Automatically fade edit edges' checkbox enabled.

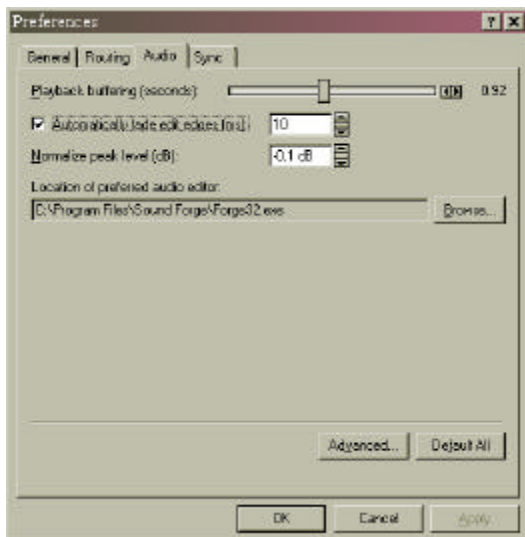


Figure 4

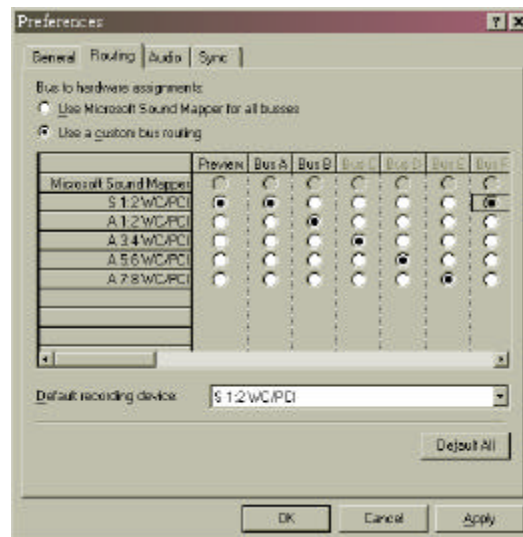


Figure 5

The Routing tab of the Preferences window (Figure 5) displays which outputs are used for each bus and the Trimmer/Explorer preview. Make sure that 'Use a custom bus routing' is selected. Only your currently selected busses are active in this window, but you can pre-select the bus routings for the inactive busses too, as shown in Figure 5. Below the bus assignment display, you can also set the Default recording device to any WCPCI input. When all the settings are correct in the Routing and Audio tabs, click OK to close the Preferences window.

Audio Recording

Start a new session in Vegas, so the Tracks window is empty. Click the red circle to the left of track 1 to arm the track for recording. To select which WCPCI input to use for recording, click the track number next to the track arming circle, and choose the desired input from the dropdown menu (Figure 6). You can choose any mono input (left or right) or a stereo input. For example, select Input 5 (A 7:8 WC/PCI) and 'Left' to use only WCPCI's ADAT input 7, or select Input 5 (A 7:8 WC/PCI) and 'Right' to use only WCPCI's ADAT input 8, or select Input 5 (A 7:8 WC/PCI) and 'Stereo' to use WCPCI's ADAT inputs 7 and 8.

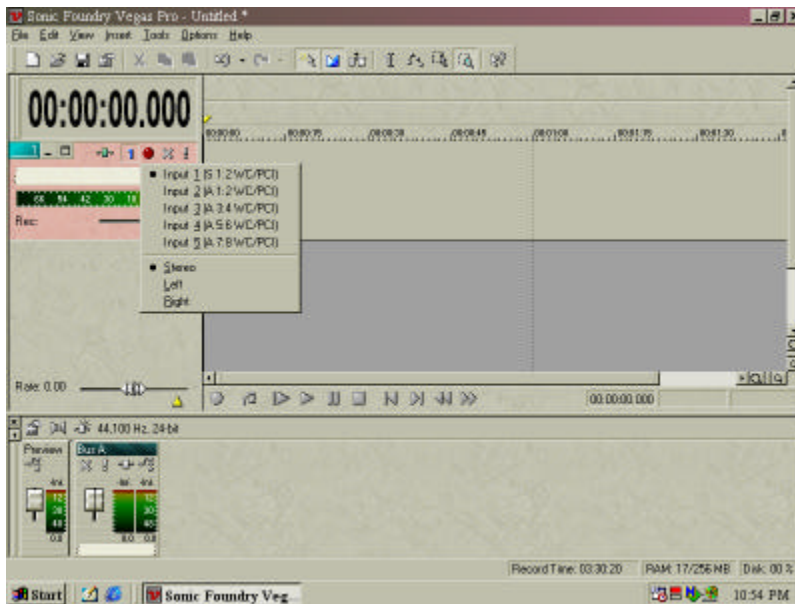


Figure 6

When you send audio to the selected WCPCI input, the input meter for that track should be active. Click the Record button to begin recording. Click Stop when you finish recording. The waveform appears in the Tracks window during recording. With WCPCI, you can record and play back up to 5 stereo tracks or 10 mono tracks simultaneously.

MIDI Set-up

Although Vegas is not a MIDI sequencing program, it does include some basic MIDI clock and MIDI timecode functions. To use WCPCI's MIDI ports, make sure they're enabled in the System tab of the WCPCI control panel. If not, set the Midi Mode to "2x2" as shown in Figure 7, and then reboot your computer for the change to take effect.



Figure 7

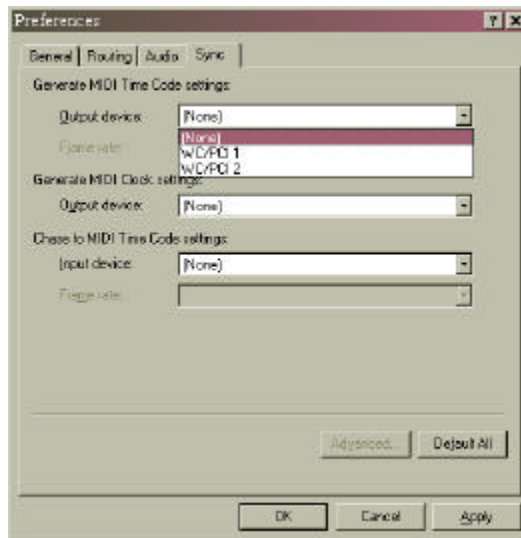


Figure 8

Select Preferences from the Options menu, and go to the Sync tab of the Preferences window (Figure 8). To synchronize Vegas with an external MIDI device by generating MIDI clock or generating/chasing MIDI timecode, select the desired WCPCI MIDI port(s) from the appropriate dropdown menu(s). If you're using MIDI timecode, make sure the frame rates are the same in Vegas and in the WCPCI control panel.