Audio Interface and Driver Compatibility with SongFrame

In this application note, we'll review audio interface compatibility with the SongFrame Songwriters Toolkit for both Mac and Windows.

Audio Driver Overview

For the Windows XP/Vista/7 environment, there are many types of audio drivers that may exist for your audio interface hardware including:

- WaveRT - Microsoft Vista's new low latency driver for PCI based audio interfaces
- Wave Driver MME (or just "MME" -Multimedia Extensions) - popular Microsoft drivers for audio interfaces with various connection schemes
- DirectSound - a software component of Microsoft's DirectX library.
- WDM - Windows Driver Model, with 2 versions - Kernel Mode and User Mode.
- ASIO -low latency audio drivers pioneered by Steinberg Media Technologies GmbH
- GSIF - drivers for the Gigasampler/Gigastudio environment
- Manufacturer Proprietary Drivers

On the Mac OS X side, we have:

- CoreAudio - OS X's built-in audio driver
- Manufacturer Proprietary Drivers (such as the Avid Digidesign drivers for the various Pro Tools hardware interfaces)

Audio Interface Driver Support in SongFrame

SongFrame for Windows works with any audio interface which has common WaveDriver/MME drivers. The audio input and output from SongFrame is 16 bit/44.1 KHz, so be sure to set your audio interface to this sample rate and bit depth in order to hear/record sounds into SongFrame. Audio interfaces can have several driver types installed at the same time, but SongFrame will only work with the MME drivers. Because of this, SongFrame must be the only application using the interface when it is running.

SongFrame for Mac is a CoreAudio application, so any interface with CoreAudio drivers should work fine. Again, the audio input and output from SongFrame is 16 bit/44.1 KHz, so be sure to set your audio interface to this sample rate and bit depth in order to hear/record sounds into SongFrame. (For the more technically inquisitive, SongFrame uses Win32 API's for audio and DirectMusic API's for MIDI implementation.)

Common Questions

- Why can't I see my Avid Digidesign audio interfaces in SongFrame? Avid Digidesign hardware and drivers are designed first and foremost to provide a rock solid low latency environment within the Pro Tools application. Avid does offer both standalone CoreAudio (Mac OS X) and Wavedriver (Windows) drivers for users trying to have other applications utilize that hardware. Vista is not yet supported for the Windows Standalone Wavedriver - only Windows XP. You can access the Digidesign info page (after sign-in) at this link: http://www.digidesign.com/index.cfm?langid=100&navid=54&itemid=23087 .

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