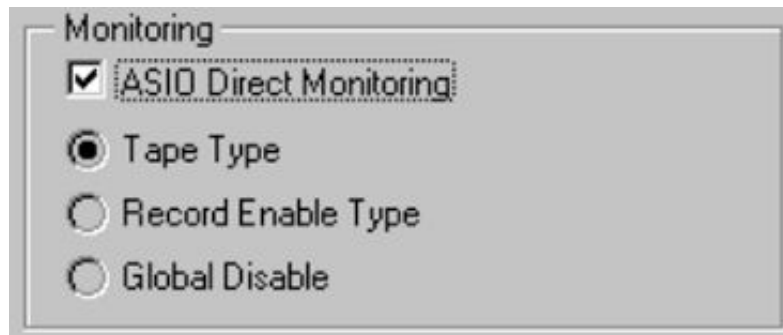


ASIO 2.0 - General Information and Features

Keywords / Key Phrases: asio2.0, feature, information, direct monitoring, positioning protocol

ASIO 2.0: ASIO 2.0 is a further development of the ASIO specification. It added two new features: Direct Monitoring and ASIO Positioning Protocol.

Direct Monitoring



When this option in the Audio System Setup dialog is activated the monitored signal does not pass through the ASIO application, such as Cubase. Instead, monitoring is handled by the actual audio hardware by instructing the ASIO driver for the hardware to send the audio from the monitored input directly back to a specified output. This allows virtually zero latency monitoring.

There are a number of options available in the Direct Monitoring options window (as seen above). If "Tape Type" monitoring is selected, Direct Monitoring will be activated for Record Enabled Tracks in Stop and Record modes. If "Record Enable Type" monitoring is selected, Direct Monitoring will be activated whenever a Track is Record Enabled in the Inspector.

ASIO Positioning Protocol (Sample Accurate Positioning)

On many occasions users wish to pull audio digitally from external devices, perhaps even while simultaneously recording into an ASIO application like Cubase and playing back other tracks recorded in Cubase. At these times it is very important to have all these various sources synchronized. Typically an external device's clock and an ASIO applications clock would require synchronizing to allow accurate playback/positioning. The ASIO Positioning Protocol is a technology that ensures that audio in an ASIO application is in sample accurate synchronization with external devices.

This is generically known as "Word Clock Synchronization". However, the ASIO 2.0 Positioning protocol does in fact specify that synchronization occur on two levels:

Level 1: Sample Rate (word clock sync)

If this type of synchronization isn't established, you may run into problems with, for example, clicks and pops or distortion.

Level 2: Sample Position (time code sync)

If the two devices do not agree on time positions, inaccuracies in positioning of the material will occur.

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