

ASIO2WASAPI Universal ASIO Driver

Introduction

ASIO is a software API and driver model developed by Steinberg Media Technologies to bypass the operating system's audio stack and let applications transfer audio data directly to/from memory mapped hardware buffers. It is used primarily by digital audio workstation applications that take advantage of its low recording and playback latencies.

Many media player programs can be configured to stream audio into an ASIO driver. This helps to ensure that the audio stream reaches sound hardware without any modifications by intermediary software components. Unfortunately, manufacturers of many common audio devices do not provide ASIO drivers. For example, many USB DACs rely on Windows/MacOS native USB audio drivers and do not come with any hardware-specific drivers.

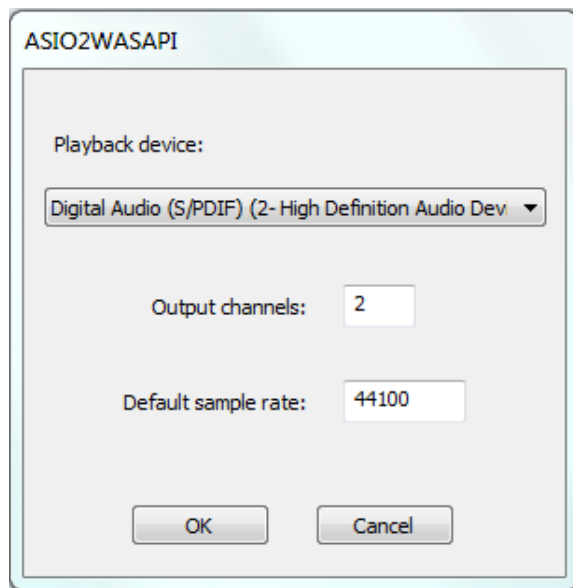
The universal ASIO driver ASIO2WASAPI addresses this problem for Windows Vista or later by providing an ASIO-compliant layer above the low-level audio API WASAPI, supported by every Windows audio device. It multiplexes a multichannel ASIO stream into a single WASAPI stream, without changing the very audio samples. ASIO2WASAPI uses so called WASAPI exclusive mode, specifically its event-driven, or "pull" variant. The audio stream does not pass through a Windows mixer or any of the Windows's audio processing objects (APOs) that are often not bit-transparent.

Installation

The universal ASIO driver is hosted on SourceForge at <http://asio2wasapi.sourceforge.com/>. Its source code and 32/64-bit binaries are available under the GPL license. To install the driver, unzip its distribution, go to the Release subfolder and double-click the Install icon. A message will appear that ASIO2WASAPI is successfully installed.

Configuration

As it is the case with every ASIO driver, ASIO2WASAPI is configured through its ASIO control panel dialog. Every ASIO client provides its own UI to launch it. For ASIO2WASAPI, the dialog looks as follows:



The playback device is a Windows audio playback device used by the driver. It is opened in a WASAPI exclusive mode and is inaccessible to any Windows application except for the ASIO client. The specified number of output channels is visible as such to the ASIO client. ASIO2WASAPI is an output-only driver and has no input channels. The default sample rate is used as the ASIO hardware samples rate until the client changes it through ASIOSetSampleRate API call.

Addendum. Build Instructions.

The driver is developed in C++ with Microsoft Visual Studio 2010. To build it, it is necessary to download the ASIO SDK from Steinberg's web site, see http://www.steinberg.net/en/company/3rd_party_developer/sdk_download_portal.html

The SDK is available under its own license and cannot be posted online on an unrestrictedly accessible web site.