Streamware™ Workbench Quickstart Release 2.2.21

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Introduction

Streamware Workbench is a software suite for generating, receiving, measuring, and stress testing statically configured IEEE1722a audio streams.

Key features:

- Send and receive class C audio streams at a packet rate of 750 Hz
- IEEE 1722a clock reference streams
- Audio Patchbay: Route audio signals to and from any Windows audio device and the AVB network
- AVB virtual sound card with ASIO 2.4 support - use third-party audio software for playing and recording audio

Streamware Workbench runs on a Windows PC equipped with AVB-capable Ethernet hardware.

System Requirements

- Microsoft Windows 7 with Service Pack 1 (32-bit or 64-bit)
- Microsoft Windows 8 (32-bit or 64-bit)
- Microsoft Windows 8.1 (32-bit or 64-bit)
- AVB-capable Ethernet adapter
    - Streamware NIC-1 PCIe network adapter
    - Streamware Analyzer GbE
    - Streamware Analyzer BR

Installation

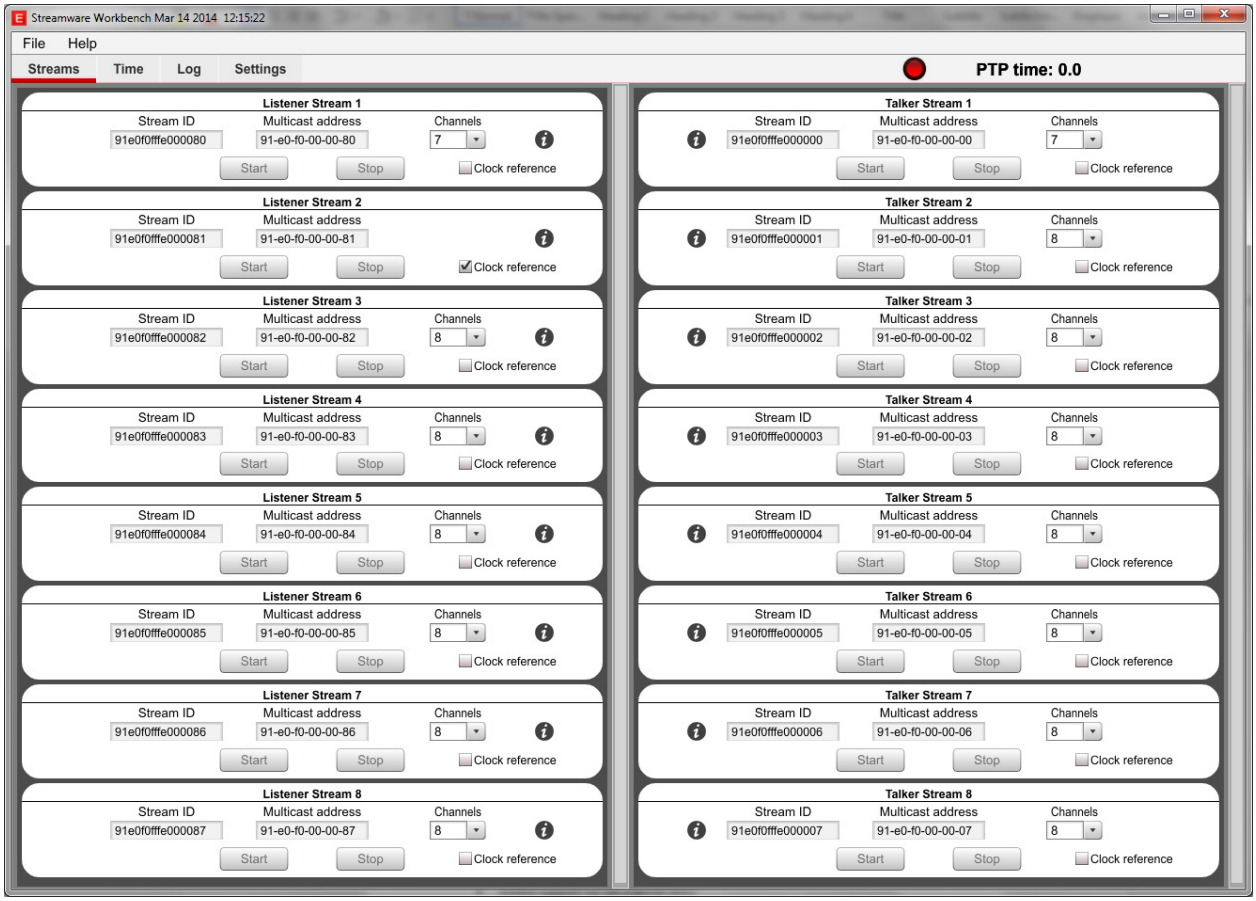
Workbench uses the Pace license management system. You may need to register for an iLok account at ilok.com, then download and install the iLok License Manager. Please note that if you have a Streamware Analyzer, the License Manager is already installed.

Workbench does not require an iLok USB device to be connected; the license may be deposited directly on the machine.

Once the License Manager is installed, run the Streamware Workbench installer.

Workbench Controller

The Workbench Controller sets up Talker and Listener streams. From the Start menu, select Streamware Workbench from the Echo Streamware folder.



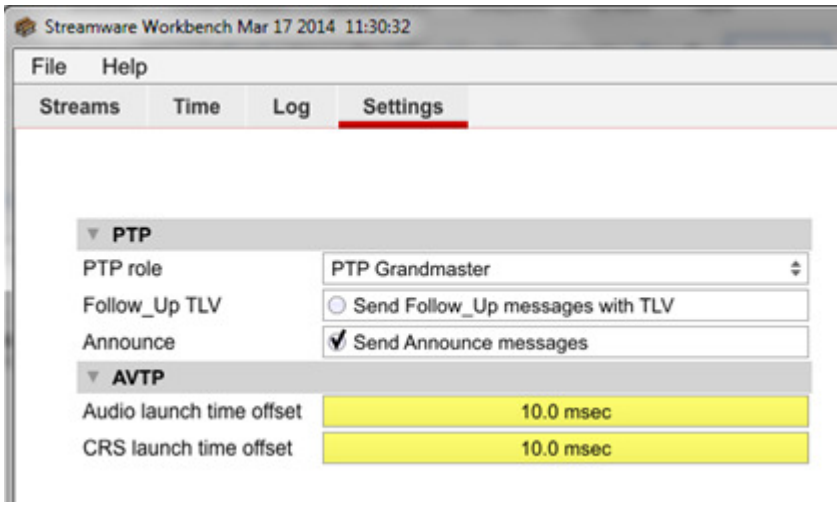
Talker streams are shown on the right-hand side of the window, with Listener streams shown on the left. The current PTP time and lock status is shown in the upper right corner.

Workbench supports up to 8 simultaneous Talker streams and 8 simultaneous Listener streams, with each stream carrying up to 8 audio channels. One stream may be designated as a 1722a clock reference stream.

Streaming to an external device

For example, suppose you have a device that receives two streams: an eight channel audio stream, and a clock reference stream.

First, verify that the settings are correct for your device. Switch to the Settings page on the Workbench Controller.



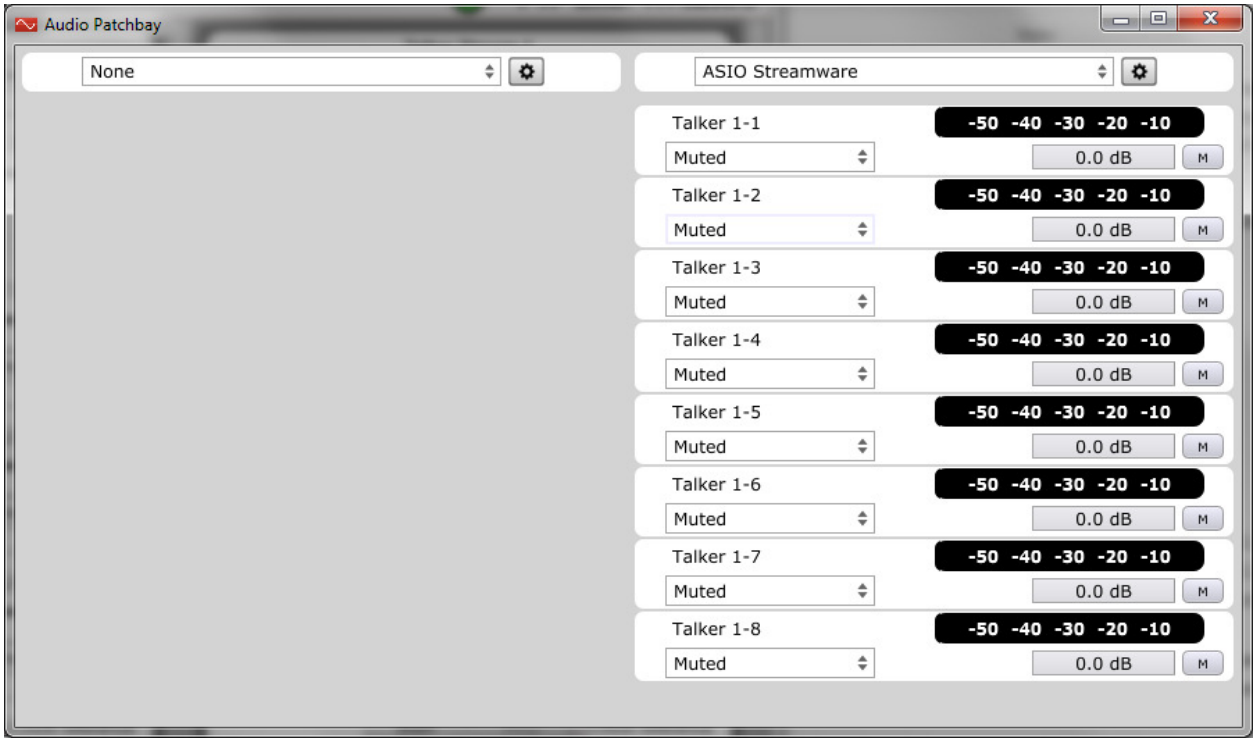
Then, switch back to the Streams page and configure the streams:

1. For Talker Stream 1, set the stream ID and the multicast address to match the stream ID and multicast address that your device expects to receive for the audio stream. Set the audio channel count for Talker Stream 1 to 8.
2. For Talker Stream 2, set the stream ID and the multicast address to match the stream ID and multicast address in your device expects to receive for the clock reference stream.
3. Click the Start button for each stream. Both streams will begin transmitting; you should see a dot blinking between the Start and Stop buttons to indicate that the stream is flowing.

For more information about the stream, click the information icon to the left of the stream ID.

Playing a test tone

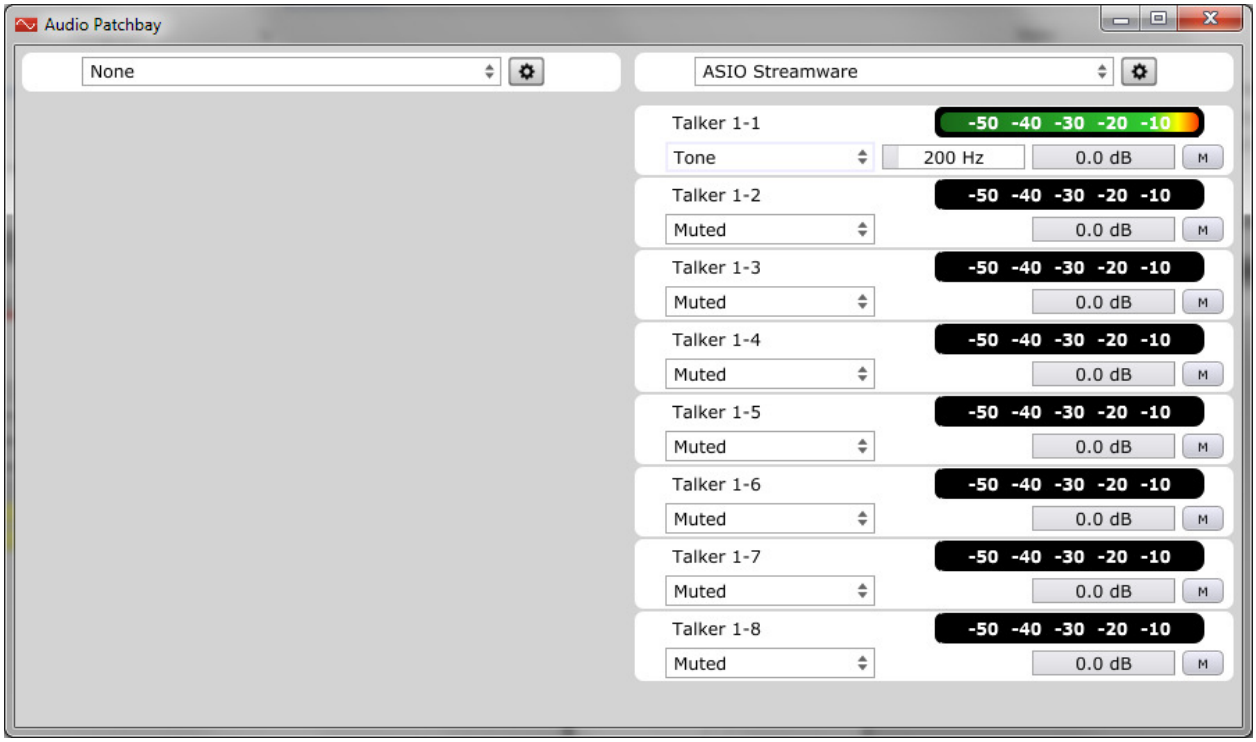
The streams are now flowing, but filled with silence. Open the Audio Patchbay from the Start menu:



The Audio Patchbay can either send sine waves to any audio output device, or can route audio from any audio input to any audio output. Audio outputs are on the right, with audio inputs on the left.

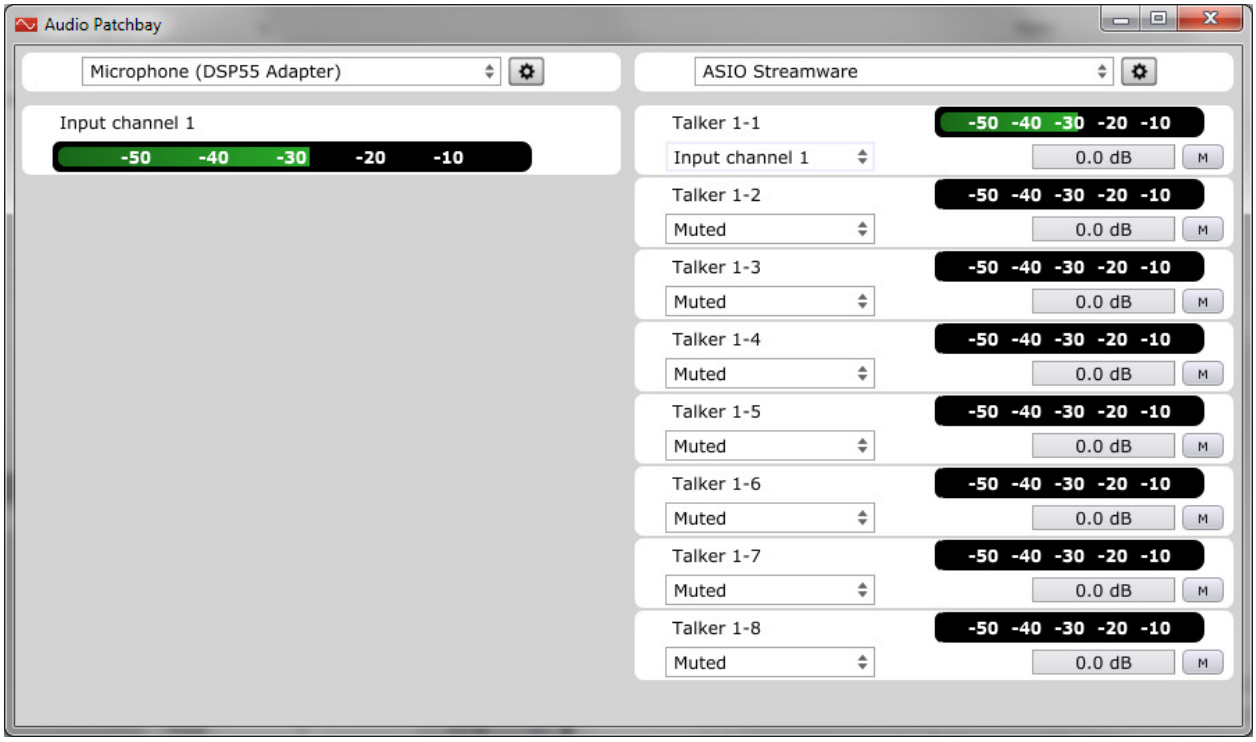
For this example, select “ASIO Streamware” from the list on the upper right. This is the virtual sound card for the AVB 1722a streams. Note the channel names; these represent the 8 audio channels for the talker stream.

Change Talker 1-1 to Tone mode:



The Patchbay is now sending a sine wave at 200 Hz over the first channel of Talker Stream 1. Each individual channel can be set to same tone, or different tones.

You can also route audio from another input on the computer. For example, if you have a USB audio headset with a microphone connected, you can select that as the audio input:



Then, change the source for Talker 1-1 to “Input channel 1” - the Patchbay will send the audio from the input device to the AVB stream.

Version History

Changes for version 2.2.21

- New Audio Patchbay
- Internal driver memory management and client management fixes
- Audio record buffers cleared on link down event
- Audio record buffers cleared on listener stream stop

Version 2.2

- Initial release