

The Audio Output extension for LabChart for Windows allows data in a LabChart file to be played through a computer sound card either in real time or offline.

Step 1: Accessing the Audio Output Extension

- Download and install the Audio Output Extension (available for free for LabChart users from our website).
- The extension adds “Audio Output...” to the Setup menu, “Play Selection...” to the Commands menu, Play Selection and Mute On/Off buttons to the Commands toolbar.
- An Audio Output help file is also added to LabChart Help where further information can be found.



Figure 1: Audio Output in the Commands toolbar.

- Under the Setup menu, choose “Audio Output...” to bring up the Audio Output dialog.

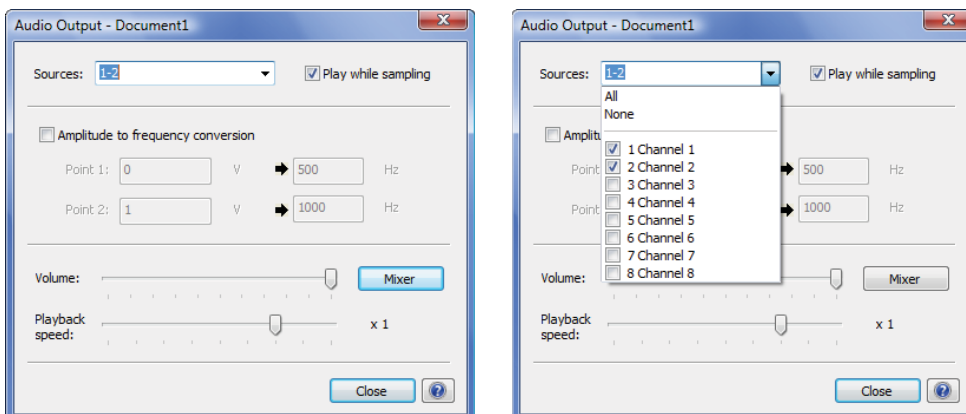


Figure 2: Audio Output dialog illustrating more than one source channel can be selected.

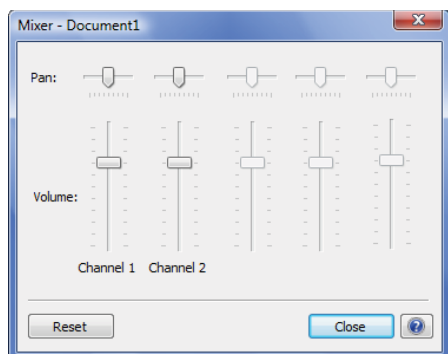


Figure 3: Mixer dialog from the Audio Output dialog allows control of the individual volume levels and the pan (left-right stereo placing) for each channel selected as sources.

Step 2: Converting a Voltage Signal into an Audible Frequency

- Select the channel sources that will provide the sound.
- If the “Play while Sampling” checkbox is enabled than the signal can be transferred to the sound card of a computer to play a real-time output of the sampled data. There may be a small delay between the recorded and the transferred signal.
- Enter a two voltage points that will correspond to two frequencies that results in suitable audible frequency.
- Select an appropriate volume and playback speed.
- Press Close.

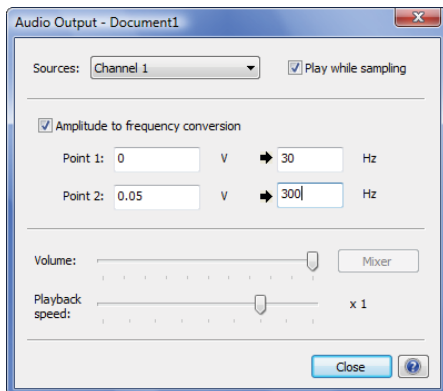


Figure 4: The amplitude of the source signal can be converted to frequency one signal at a time.

Step 3: Recording Device

- Attach a Transducer such as a MLT1010 Piezo Electric Pulse Transducer to the source channel
- Turn on the speakers attached to the sound card of the computer.
- Setup the Audio Output dialog as shown in Figure 3.
- The “Amplitude to frequency conversion” in the Audio Output dialog may need readjustment
- Click the Start button to start recording.

Step 4: Playback

- Any recorded signal may be played back by choosing using the “Play Selection...” from the Commands menu.
- Make a whole or partial selection of any recorded signal.
- Select suitable settings in the Audio Output dialog from the Setup menu.
- Select “Play Selection...” from the Commands menu or press Play Selection from the Commands toolbar to listen to the signal.