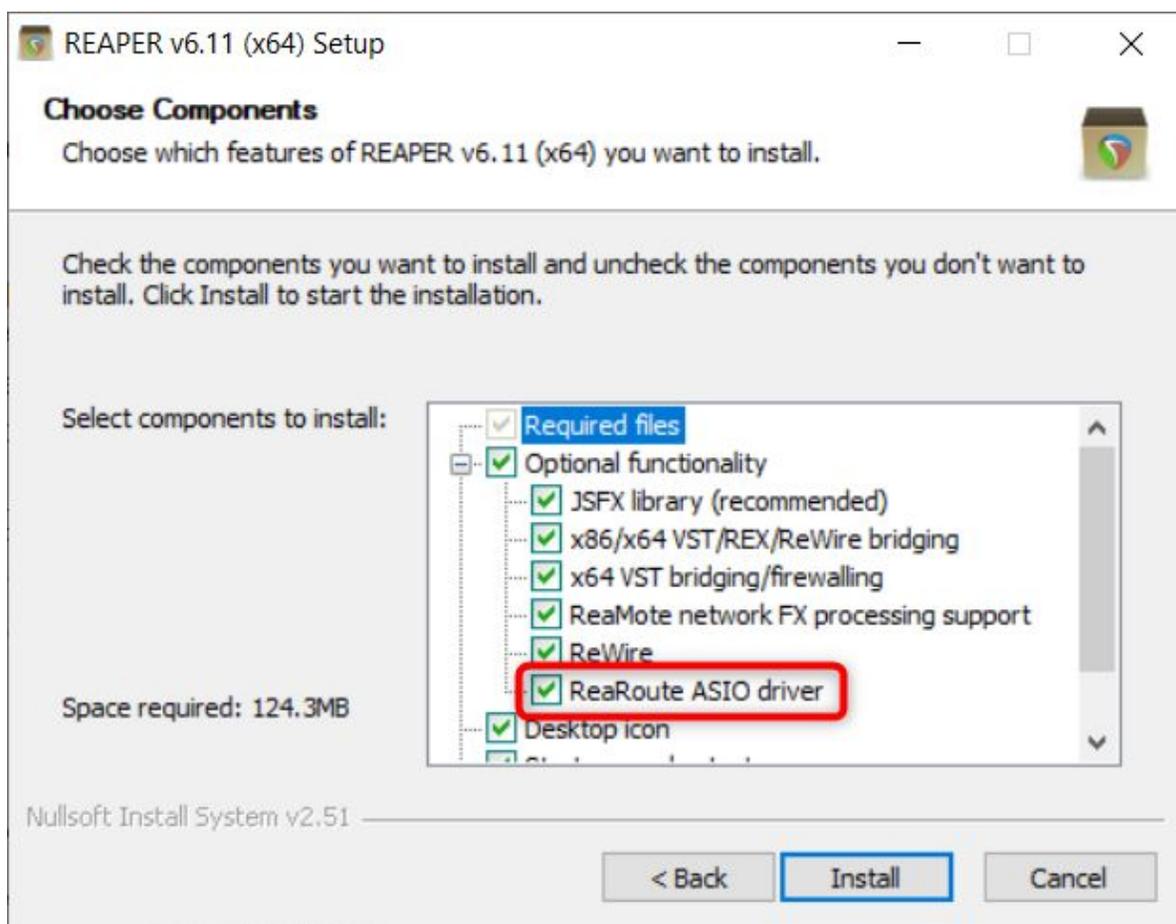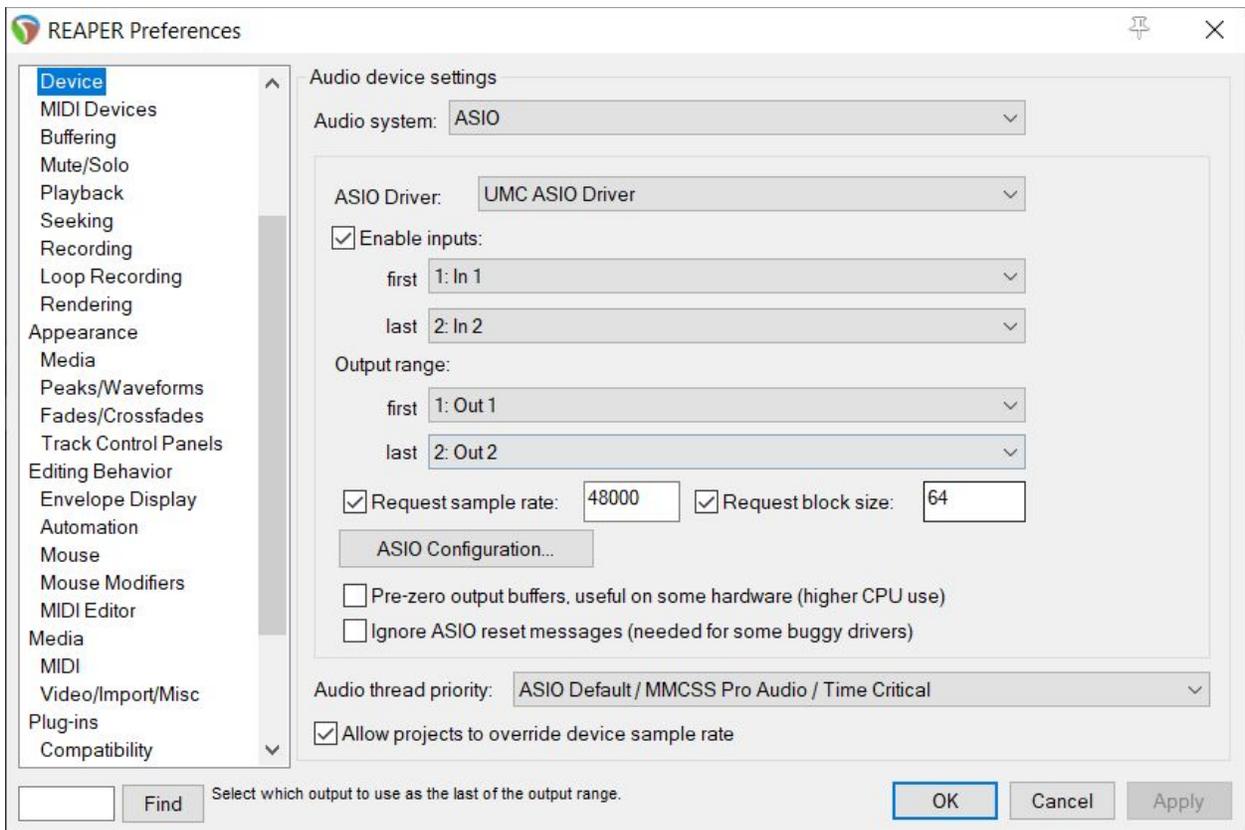# Record Jamulus With Reaper

Reaper includes the **ReaRoute ASIO driver** that can be used while using Jamulus on Windows to route your session output to Reaper for recording. As an added bonus, you can add effects plug-ins to the vocal or instrument inputs for your Jamulus session. These instructions assume you know the basics of using Reaper and Jamulus. You may also want to review the Jamulus Wiki entry on [hardware setup](#). Versions used are Reaper 64-bit 6.12 and Jamulus 3.5.6.
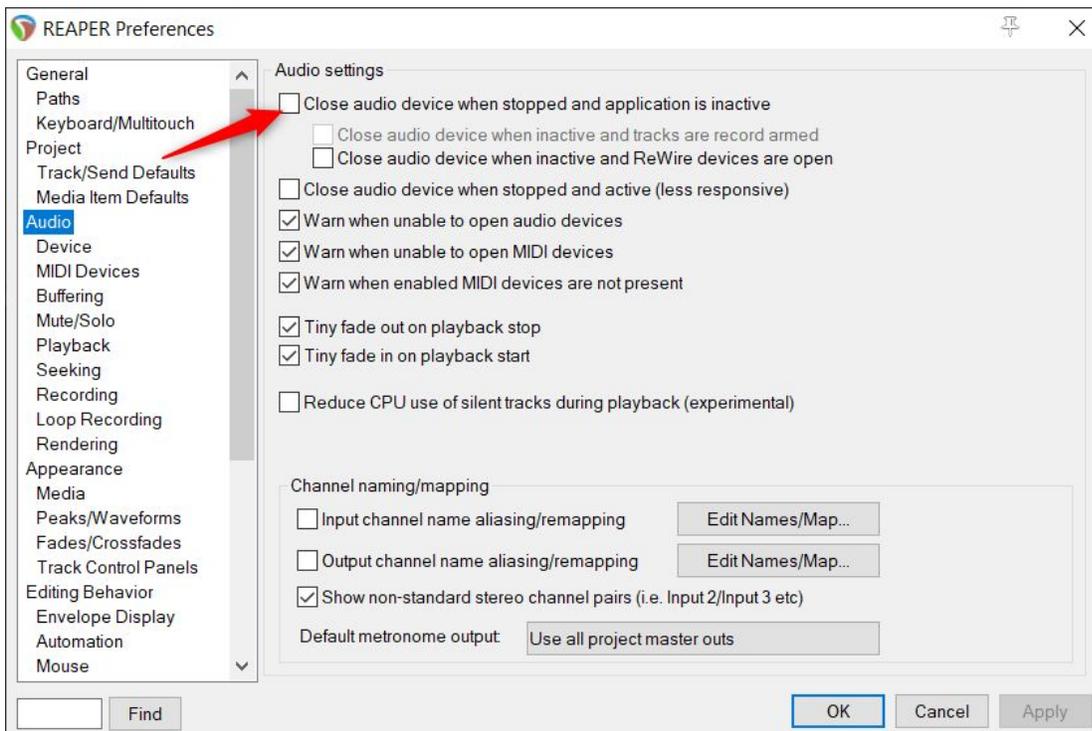
Configure Reaper

1. Install (or re-install) Reaper, and include the ReaRoute add-on. You have to do a custom install and check the box for **ReaRoute ASIO driver**, under **Optional functionality**

2. Open Reaper, in the Options ➜ Preferences ➜ Devices menu, and select ASIO under Audio system, and your Audio Interface or Mixer driver as your ASIO Driver. In my example the interface is a Behringer UMC202HD, and uses the native UMC ASIO driver. Check the box to Request sample rate of 48000 and Request block size of 64 or perhaps 128. Lower means less latency.
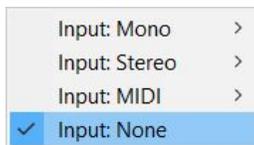
3. On the Audio settings menu, Uncheck the box for Close audio device when stopped and application is inactive. This prevents Reaper from closing the ASIO driver when you switch to another app.
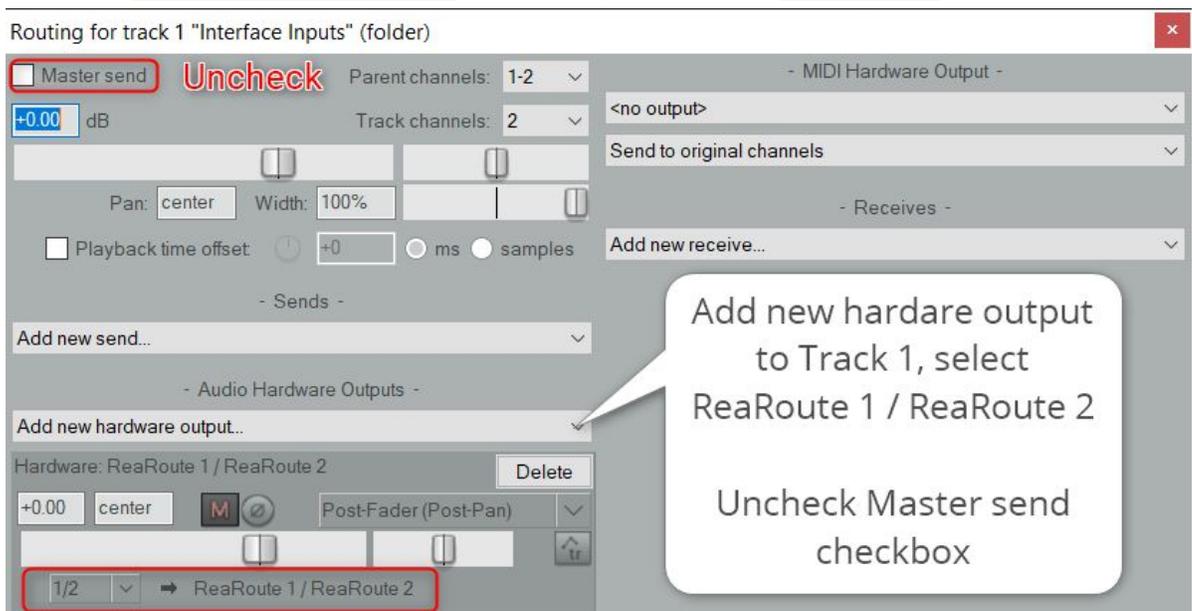
Note: For this example setup, I've added four tracks in Reaper. Two for the Behringer UMC202HD interface inputs, one Track Folder to send audio to ReaRoute, and one Output track for recording Jamulus.

Track Folder button, add or remove tracks from a folder group

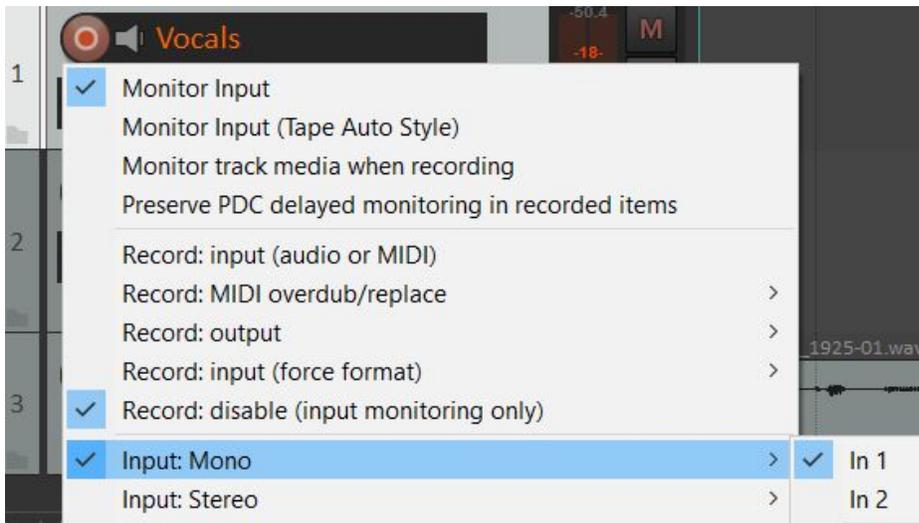Routing button, you may need to unhide it, see instructions below

Record Arm/Disarm Button

4. Add Track 1 (double-click in the track control panel area) **Optional:** give it a name
5. Right-click the Record Arm/Disarm button, select Record: disable (input monitoring only)
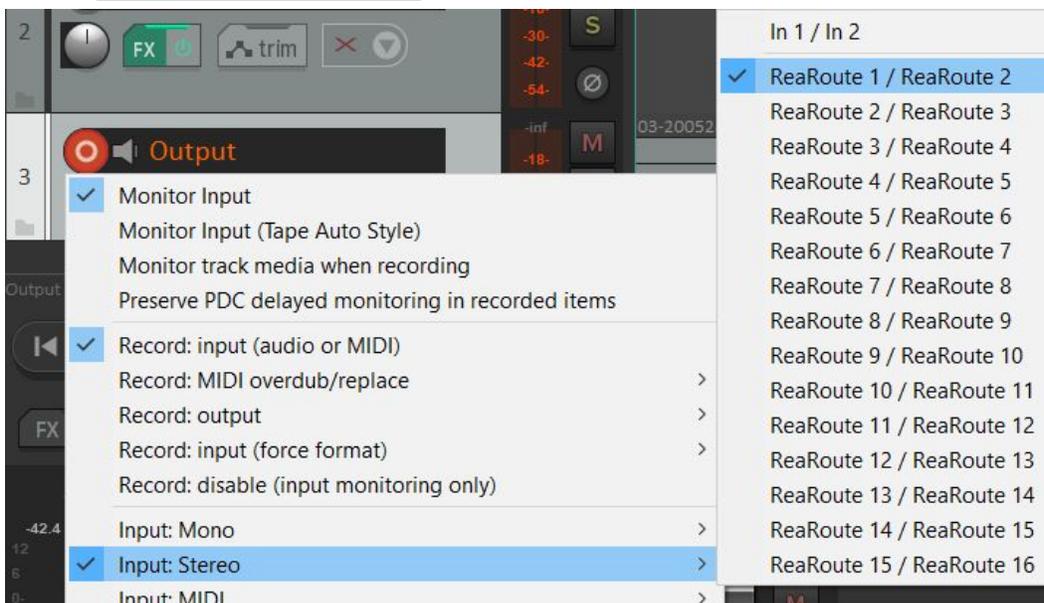6. Set the Input for Track 1 to None

7. Click the Track 1 Route button, select Add new hardware output... drop down, and then add ReaRoute 1 / ReaRoute 2 as the output, uncheck Master send checkbox.

8. Add Track 2, **Optional:** give it a name like Guitar or Vocals
9. Select Input: Mono and In 1.
10. Click the [Track Folder](#) button (see above) on Track 1, to add Track 2 to a folder submix
11. Repeat steps 8, 9 and 10 for Track 3, but select In 2 **Note:** add as many Tracks as you need for your particular interface or mixer. On my XR-18, I use up to 5 or 6 Tracks for multiple instruments. Some instruments use a pair of inputs, in that case, add the track as Input: Stereo and select the stereo inputs

12. Add Track 4
13. Click the Track 4 Record Arm/Disarm button to enable it
14. Right-click the Track 4 Record Armed button, and select Input: Stereo, and then select ReaRoute 1 / ReaRoute 2

In the lower half of the screen, you can see the **Mixer Control Panel** section of Reaper. The next change takes place down there.

15. Verify the Output routing on the Master Track. Click the Route button, and verify the Hardware output matches the outputs on your interface or mixer - see below
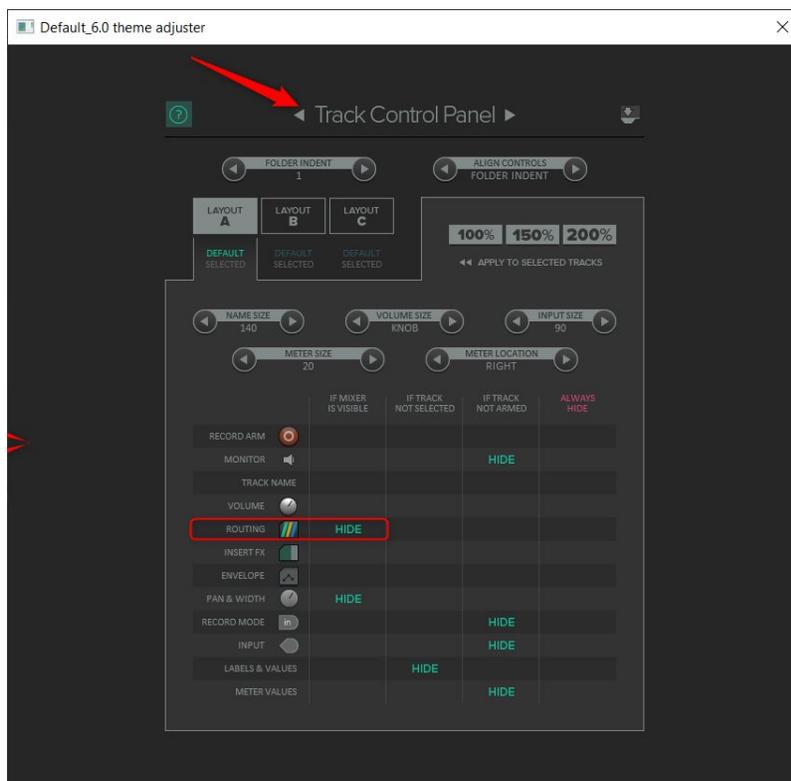

16. Unhide the Route button on your Tracks. Open the Options → Theme → Theme Adjuster / Color Controls menu
17. Click the navigation arrows to open the Track Control Panel - see below
18. Click on the word **HIDE** next to ROUTING, to unhide the Route button on your Tracks.
    Note: You may not need to do this, depending on your version of Reaper or theme
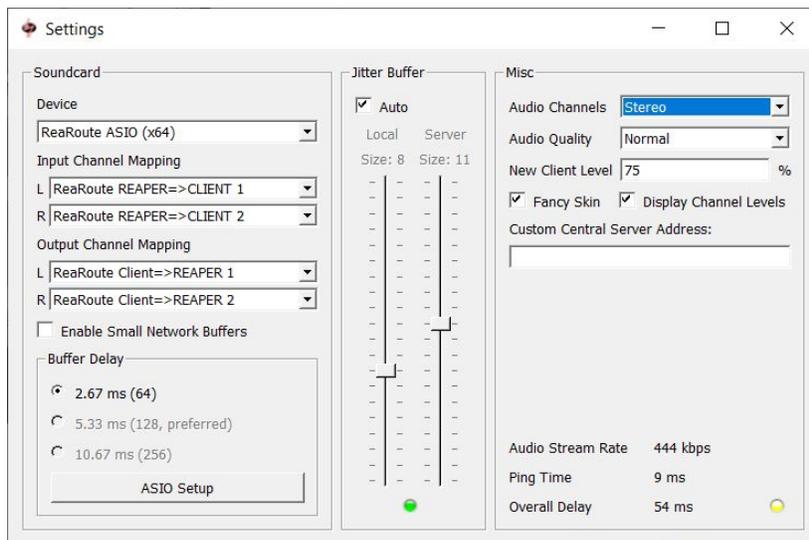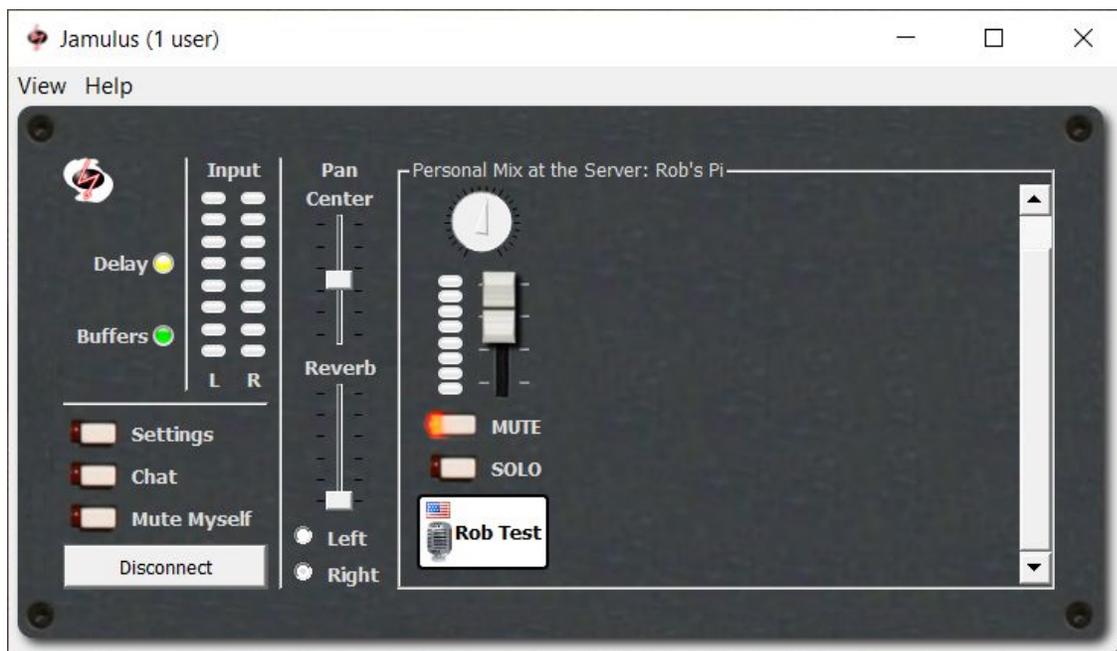
Optional Reaper Configuration

- Save your project, and optionally save your project as a template to keep these settings
- Add FX to your vocals and instruments, Tracks 2 and 3. I've added ReaVerbate reverb to Track 2 for vocals, and AmpliTude 4 guitar sim to Track 3

Configure Jamulus

1. Open Jamulus
2. Open the Settings menu
3. Select ReaRoute ASIO (x64) as the Device, and hopefully channels 1 and 2 are the default inputs and outputs, as shown below

4. In the main Jamulus window, click Connect and join a server and test your audio

Note: If you click the Mute button on your channel, you should <u>not</u> hear any audio

If you hear your own audio when your mute button is on, then you are not routed correctly. Double-check your input/output setting on your tracks.

Now you can record your Jamulus session by pressing Record in Reaper.

Additional Hardware Tested

These instructions were also tested with an Ammoon AGM04 audio mixer with USB interface, using the [ASIO4ALL](#) driver. The instructions work, but when adding the inputs for Track 1 & 2 and the output on Track 3, the inputs on the mixer will show up as USB AUDIO CODEC 1 and 2. You will also need to configure the ASIO4ALL driver to use the USB Audio Codec device, and not your onboard sound card.

Document Version Information

Last update: 6/21/2020
Changes: Updated the Reaper settings for Track 1, to use it as a Parent folder. This allows multiple inputs from your interface. Also updated to use the Master send as the hardware output.