

# Broadcasting Audio to Ustream.tv

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Have you ever wanted to stream audio from an application on your Mac to Ustream.tv? Ever wanted to jam out to your favorite tunes in iTunes? Re-route audio from your favorite Youtube video? Well now you can. The solution I'm about to describe utilizes popular Mac applications to re-route audio from any source on your Mac to Ustream.

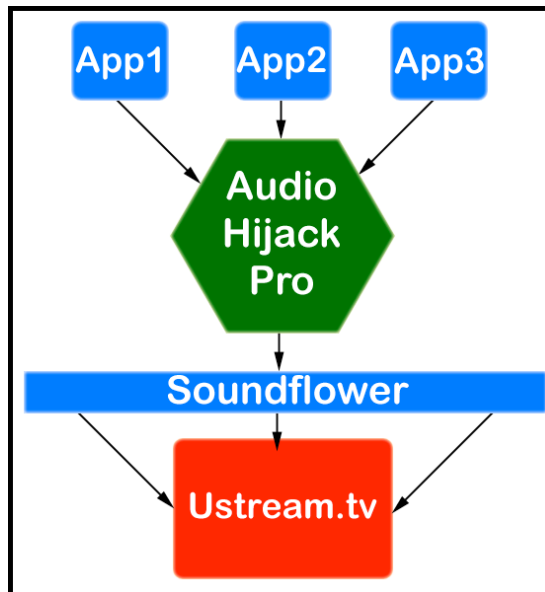
**Note:** This solution is flexible enough to route audio from any source to any destination!

## Tools

The toolset used for this solution is as follows:

- ➔ Audio Hijack Pro
- ➔ Soundflower
- ➔ Ustream.tv

## The Solution



This diagram shows a high level diagram of the solution using the tools described earlier. Essentially, App1, App2, and App3 can be any application on your Mac which outputs audio. A practical example would be iTunes, Firefox, and a Microphone. The microphone should be included if you wish to include your voice over the other audio sources.

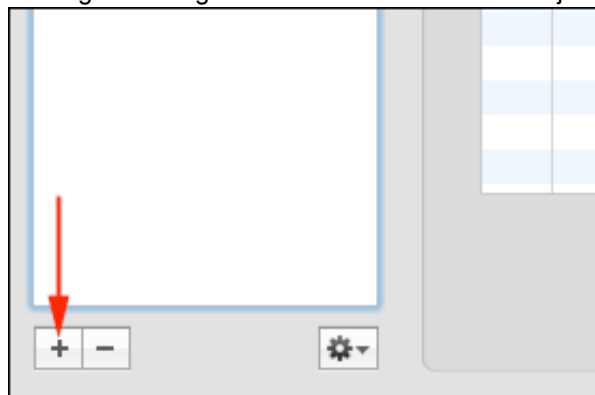
You would then “hijack” the audio sources in Audio Hijack Pro and set the output to Soundflower. You would then set Ustream’s input audio to “Soundflower 2ch”.

Did any of that make sense? If it did, you’re a genius, if not, don’t fret because I’m going to go through the detailed steps.

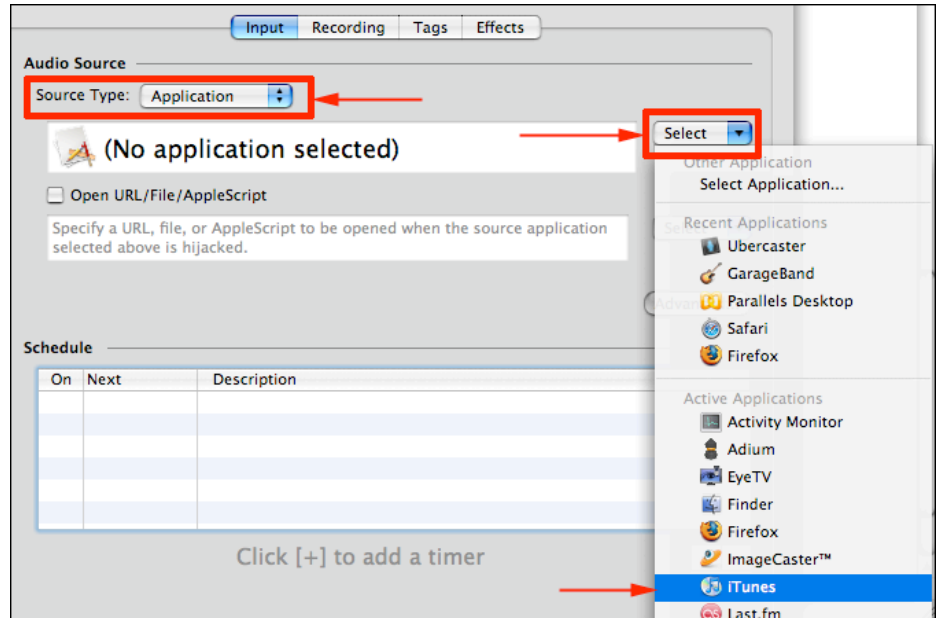
## Detailed Steps

1. Download and install the required software:
  - ➔ Audio Hijack Pro (\$32 US) - <http://www.rogueamoeba.com/audiohijackpro/>
  - ➔ Soundflower (Free) - <http://www.cycling74.com/products/soundflower>
2. Setup Audio Hijack Pro:

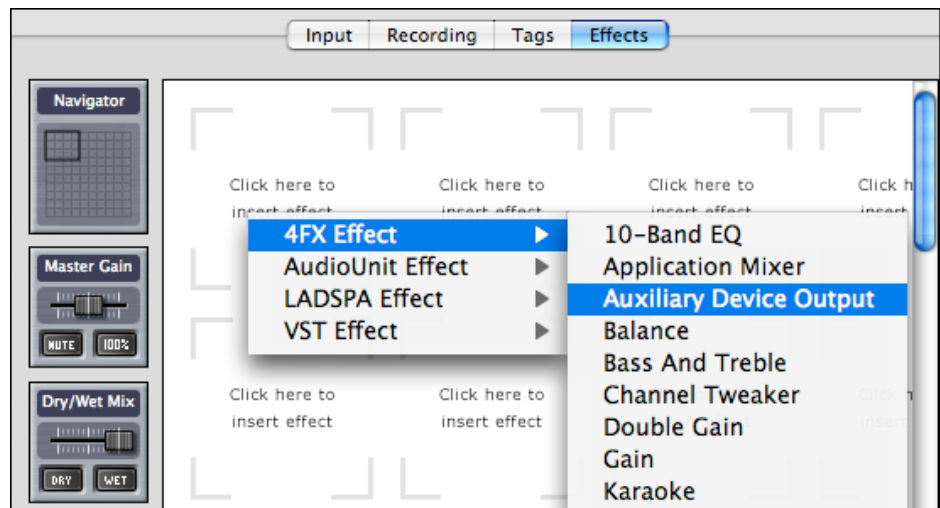
For this example, we'll hijack iTunes. The first step is add a new session by clicking the '+' sign at the bottom of the Audio Hijack Pro window



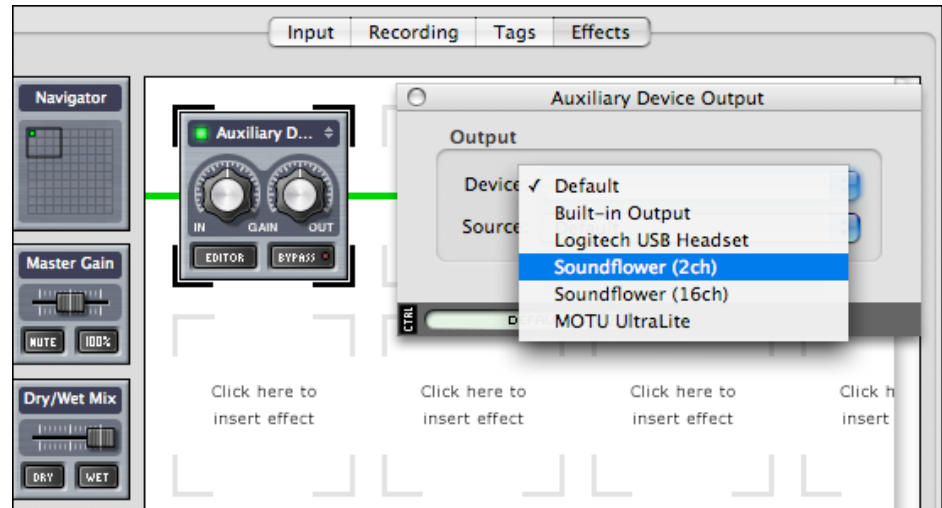
The next step is to choose an application to “hijack”. Make sure the Source type is set to “Application”, then click the “Select” dropdown to select iTunes



The next step is to click the “Effects” tab. Next, click in the first box that says “Click here to insert effect”. In the menu, select “4FX Effect” -> “Auxiliary Device”

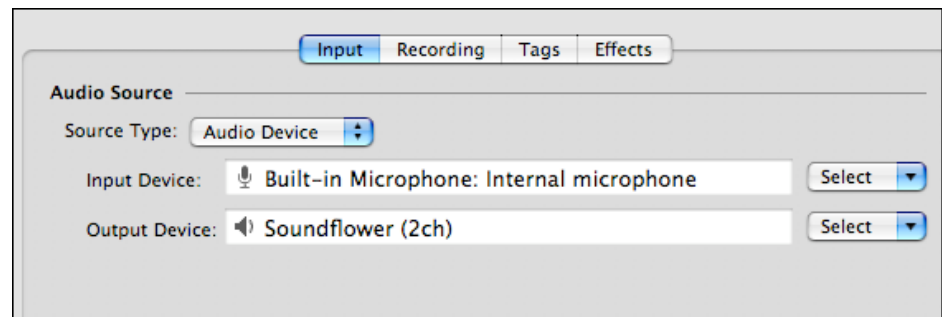


Next, configure the Auxiliary device to point to “Soundflower (2ch)”



At this point, you are able to adjust the input and output levels of iTunes by adjusting the knobs on the Auxiliary Device control. If you find your iTunes is too loud in Ustream, you should adjust levels here.

Next we'll configure a microphone input so that we can speak along with iTunes. Repeat the initial steps to add a new session by clicking the "+" on the bottom right of the window. This time, the source type will be "Audio device". In the Input Device section select the appropriate microphone input and for Output Device, select "Soundflower (2ch)". When you are done it should look like something like this:



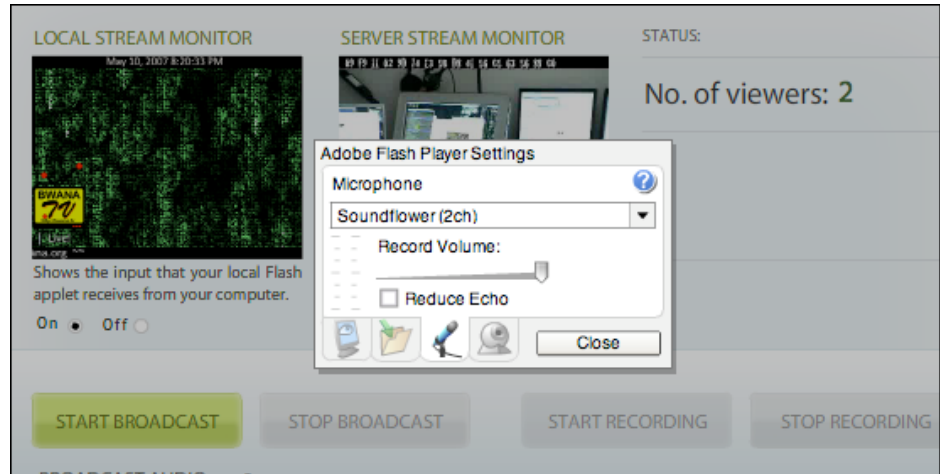
3. Hijack the audio

In Audio Hijack Pro, select the iTunes session and click the “Hijack” button in the window



The text below the Hijack button should say “Hijacker On”. Repeat the same process for the microphone input.

4. Configure Ustream to use Soundflower (2ch) as microphone input



**You're done!**

You should check with your viewers regarding audio levels within each various source. Remember you should adjust these levels within Audio Hijack Pro. This solution can be used for live podcasting with applications such as Ubercaster. I have personally done it and it went over well. I hope this guide helps!