radioee.net co-streaming manual

What do you need for streaming? You can stream basically with only your computer. And from there you can get very sophisticated adding mixers, external devices, sound instruments, etc.

This is a work in progress manual for RADIO STREAMING. Please add your questions/resources at the end of the document so we can all together sort them out and make this grow!!!

1. WEBCASTING BASICS (broadcasting over the internet)

2. TECH SET-UP

- A. BEGINNERS TECH SET UP
- B. BEGINNERS PRO TECH SET UP
- C. ADVANCED TECH SET UP

3. STREAMING SOFTWARE SET-UP

4. SCENARIOS

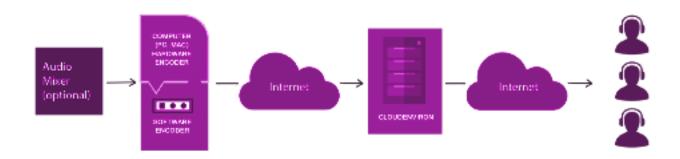
- A. Broadcast yourself talking with only your computer.
- B. Broadcast a live interview with only your computer
- C. Broadcast only pre recorded sound with only your computer.
- D. Broadcast pre-recorded sound and talk live with your computer.
- E. Broadcast yourself talking with your computer + a microphone and a mixer
- F. Broadcast music with your computer + a controller
- G. Broadcast a live interview / music with your computer + a sound device (cdjs, phone, ipad, another computer) + a microphone and a mixer.
- H. Broadcast a live interview or / music with your computer + a microphone + a mixer.

1. WEBCASTING BASICS

Webcasting is broadcasting over the internet.

What is streaming? **Streaming is that you send whatever is happening in your computer/device to the world via a SERVER, in this case we are using PUBserver.** The server then then distributes your stream to listeners via a web link: In this case, radioee.net

What we are gonna do in this case is giving you the keys to connect your device to the server. For this we are using a streaming software called BUTT.



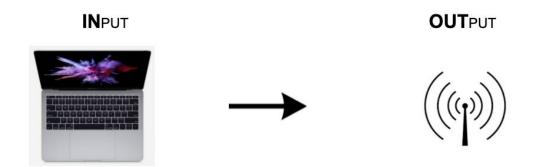
2. TECH SET-UP

There are many different "tech set ups" (mixers, sound cards, mics, instruments, etc) but they are conceptually the same.

IN SUMMARY: YOU ARE BRINGING SOUND INTO THE MIXER/SOUNDCARD/COMPUTER ETC = THIS INPUT IS A MIC AND A DEVICE PLAYING SOUNDS. WHAT YOU WANT TO DO IS GETTING IT OUT THROUGH THE COMPUTER TO THE INTERNET.

A. BEGINNERS SET-UP

"I ONLY HAVE A COMPUTER AND I WANT TO SPEAK THROUGH ITS MIC"



Input: Only one computer

You can speak through the mic of the computer and stream it through Butt.

B. BEGINNERS PRO

- "I ONLY HAVE A COMPUTER AND I WANT TO SPEAK THROUGH ITS MIC"
- "...AND ALSO PLAY SOUND" OR
- "...AND ALSO DJ WITH A CONTROLLER AND A SOFTWARE"

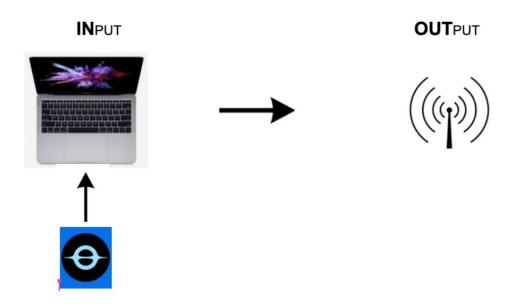
In this case you need to trick your computer to send the sound that normally would go out (via the headphones) as an input to Butt, the streaming software.

Blackhole/Soundflowers are like a fake loop, it simulates a "interior mixer", it turns the sound of your computer into an input that can be streamed.

Add BLACKHOLE 16ch / SOUNDFLOWER and use your own computer to stream different channels (for example if you want to play music and talk I at the same time).

https://github.com/ExistentialAudio/BlackHole

How to use Blackhole: https://www.youtube.com/watch?v=9aGU1sr- Tw



Input: Only one computer with Blackhole software installed

C. ADVANCED TECH SET UP

This is the most common and handy. You either have a mixer or a soundcard in which you plug the inputs into (mic, ipad, to play sound) and take the sound out via your computer to stream. Use headphones or monitors to listen.

The set up we are using now:

INPUTS

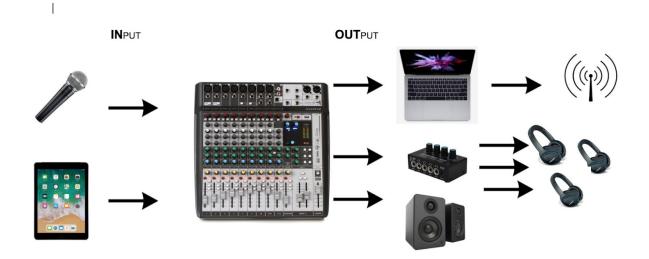
MIC for hosts - xlr - mixer in line 1
Phone for calls - rca to minijack in line 2
Computer playing sounds - rca to minijack in line 3

OUTPUTS

Usb main output - computer streaming

Main output - jack jack to jack - headphone splitter - headphones

(Quarantine Hack: You can also use the streaming computer to launch sounds, this is not recommendable but if you don't have another device just make sure to select the right input output settings in your sound preferences and don't make weird sounds while you are streaming)



Inputs: Microphones, Ipad, DJ setup (vg. CDJs), instruments...

Interface: Radio Mixer / Soundcard

Outputs: Computer, headphones, speakers

3. SETTING UP THE STREAMING SOFTWARE

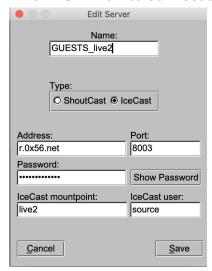
Download streaming software: BUTT https://danielnoethen.de/

Manual: https://danielnoethen.de/manual.html about

1. This is BUTT



2. Tell BUTT how to connect to PUBserver (mail radioee.net@gmail.com for password)

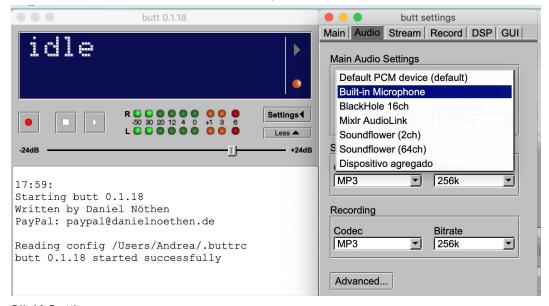


Click settings

└ Click Main

Large School of the server and the passwords (see image).
Large Save

3. Edit BUTT Preferences to match to your set up.

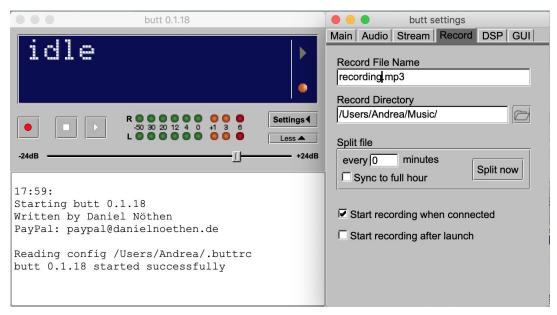


ClicK Settings

↓Select your audio device (Built-in microphone, BlackHole, Soundflower, USB)

***NOTE! Double check in your system preferences also that the input and output are correct.

4. Recording the stream with BUTT



You can record the stream with another software, but BUTT records pretty ok.

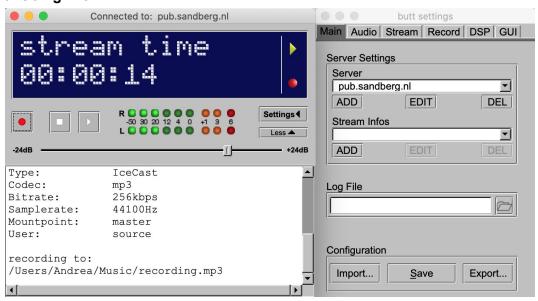
ClicK Settings

↓ Click Record

▶Select the name of your file and the directory

Click Save

5. Going live



Click play

Check volume in BUTT - never get to red

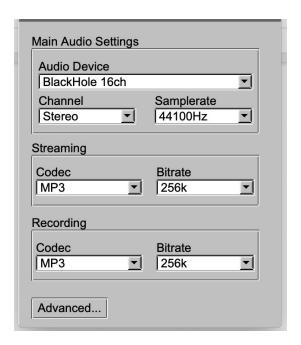
6. Volume checking

Check in the stream link if the volumes are correct, then adjust volume in butt, volume in the master in the mixer, volume in the mics / other inputs.

This is the streaming link that you can always check even if the radio is not live on pub: https://r.0x56.net/live

7. Problems

If your stream is weird bcs of your internet connection try to stream at a lower bitrate. Try 128 or even 64.



4. SCENARIOS

We listed some of those scenarios, please add your doubts, questions or problems at the end of the document and we can collectively sort them out.

a. Broadcast yourself talking with only your computer.

- 1. Use Beginners Set Up
- 2. Set up BUTT preferences to Built-in microphone (see chapter 2: setting up streaming software)
- 3. Go LIVE

b. Broadcast a live interview with only your computer

- 1. Use Beginners Set Up Pro
- 2. Set up Blackhole
- 3. Set up call, conference
- 4. Set up BUTT preferences to use Blackhole
- 5. Go LIVE

c. Broadcast only pre recorded sound with only your computer.

- 1. Record your program. Record your voice or sound mix with your phone/ your computer or a recorder and use an editing software like garage band / audition / audacity to put it together. Export it as a mp3 file.
 - ** If you don't know how to do it go to How to prepare sound for streaming
- 2. Use Beginners Set Up Pro
- 3. Set up Blackhole
- 4. Prepare your file
- 5. Set up BUTT preferences to use Blackhole
- 6. Go LIVE

d. Broadcast pre-recorded sound and talk live with your computer.

- 1. Prepare your sounds. Record your voice or sound mix with your phone/ your computer or a recorder and use an editing software like garage band / audition / audacity to put it together. Export it as a mp3 file.
 - ** If you don't know how to do it go to How to prepare sound for streaming
- 2. Use Beginners Set Up Pro
- 3. Set up Blackhole
- 4. Prepare your file
- 5. Set up BUTT preferences to use Blackhole
- 6. Go LIVE

e. Broadcast yourself talking with your computer + a microphone and a mixer

- 1. Use Advanced Tech Set up
- 2. Set up BUTT preferences to fit your mixer (e.g. USB input)
- 3. Go LIVE

f. Broadcast a live interview / music with your computer + a sound device (cdjs, phone, ipad, another computer) + a microphone and a mixer.

- Use Advanced tech set up
- 2. Use your other device to set the call / play the music and connect it as an input to your mixer
- 3. Set up BUTT preferences to fit your mixer (v.g. USB input)
- 4. Go LIVE

QUESTIONS / ANSWERS

Please add your questions, answers here so we can collectively sort them out.

RESOURCES

Please add your life hacks and resources here so we can collectively make this grow.