DH5HS

GREEN PAPER
Raspberry 4 und HackRF one - als WSPR Receiver (Transmitter)

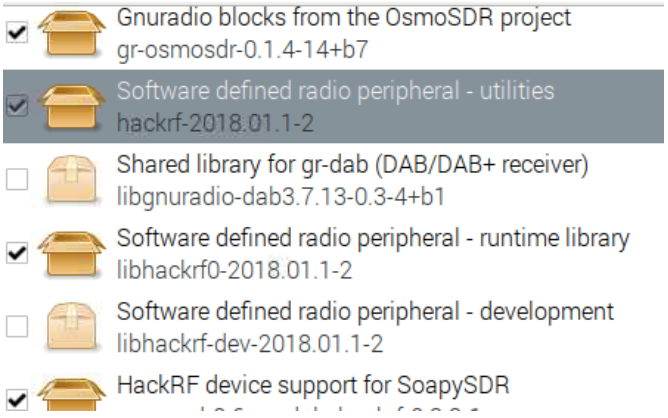
Benötigte Soft- und Hardware / Konfigurationshinweise

Hier vorhandene Hardware

Raspberry 4 / 400
HackRF one China Nachbau
EFHW Kurzwellenantenne

Benutzte Software

Raspberry OS
HackRF OS utilities und Software
GQRX SDR Empfänger Software
WSJT-X
PulseAudio Volume Control
Script für virtuelle Audiokabel



Einrichten

HackRF utilities und Software per Add/REMOVE installieren.

GQRX SDR Empfänger Software per Add/REMOVE installieren.

WSJT-X per Add/REMOVE installieren.

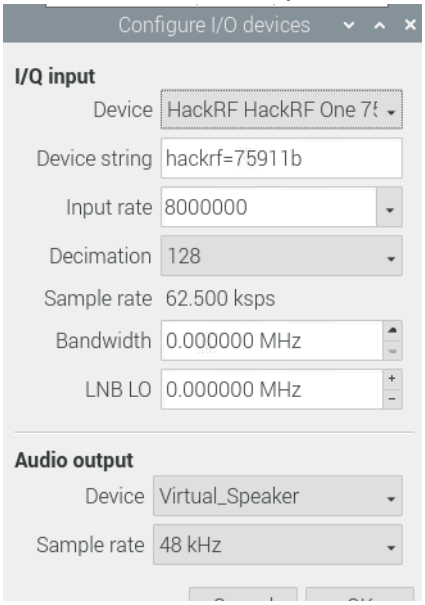
PulseAudio Volume Control installieren mit “*sudo apt install pavucontrol”*

Script für virtuelle Audiokabel

```
#This is a script to load to virtual items in Linux
# 1 a virtual microphone that can be used in Zoom / Jitsi etc
# 2 A monitor device that can used to group different sources, like OBS
# 3 A remap to route the monitor to the mic
# 4 Finally a loop back audio device that can used to hear the stream.
# note there is a delay, but if using OBS can fixed in the advanced audio properties.
#To configure you should install 'PulseAudio Volume Control' (assuming you have pulseadio installed.
# fedora "sudo dnf install pavucontrol"
# Ubuntu or most apt based systems "sudo apt install pavucontrol"

#!/bin/bash

pactl load-module module-null-sink sink_name=virtspk sink_properties=device.description=Virtual_Speaker
pactl load-module module-null-sink sink_name=virtmic sink_properties=device.description=Virtual_Microphone_Sink

#Remap source
#While the null sink automatically includes a "monitor" source, many programs know to exclude monitors when listing
microphones. To work around that, the module-remap-source #module lets us clone that source to another one not labeled as
being a monitor:

pactl load-module module-remap-source master=virtmic.monitor source_name=virtmic
source_properties=device.description=Virtual_Microphone


#Add loopback to hear

pactl load-module module-loopback latency_msec=1

#configure loop back in pulseaudio manager. This will be needed to do each time sorry. (Once you setup it should remember)
```

Starten

1. Script für virtuelles Audiokabel starten
2. GQRX starten, WSPR Frequenz einstellen und wie folgt konfigurieren:



2.1.

3. WSJT-X starten und neben Rufzeichen und Locator Audio wie Input als “virtspk.monitor” konfigurieren

73 de
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