dsd running on OS X

DMR, P25 and lots more

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github.com/zendata/SDR

supported formats

- P25 phase 1
- ProVoice
- X2-TDMA
- DMR/MOTOTBRO
- NXDN
- D-STAR

dsd requirements

- cmake
- mbelib
- sndfile (libsndfile)
- itpp (TP++) >= 4.3
- portaudio

mac ports

- cmake 3.10.3_0
- libsndfile 1.0.28_0
- portaudio 19.20140130_2
- itpp 4.2.0

first issue

- mac ports itpp 4.2.0 does not allow dsd to compile
- uninstall itpp port

install IT++ (itpp)

```
wget -O itpp-latest.tar.bz2 http://sourceforge.net/projects/itpp/files/latest/download?source=files
```

```
tar xjf itpp-latest.tar.bz2
cd itpp-*
mkdir build && cd build
cmake ..
make -j`nproc`
sudo make install
```

install mbelib

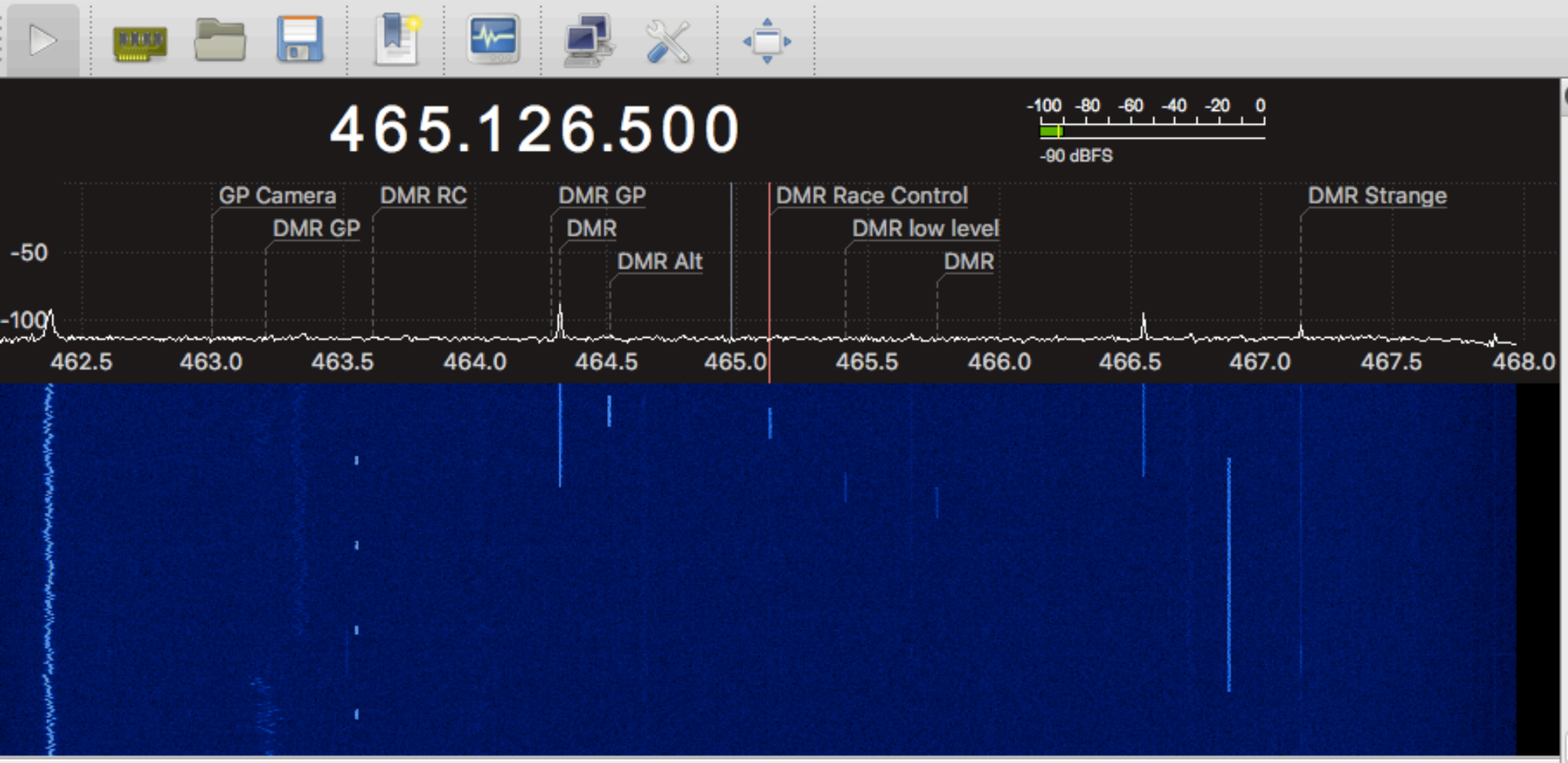
https://github.com/szechyjs/mbelib.git

```
git clone https://github.com/szechyjs/mbelib.git
cd mbelib                               # Move into source folder
mkdir build                             # Create build directory
cd build                                # Move to build directory
cmake ..                                # Create Makefile for current system
make                                    # Compiles the library
sudo make install                       # Library is installed into computer
```

build dsd

```
git clone https://github.com/szechyjs/dsd.git
cd dsd
mkdir build
cd build
cmake ..
make
sudo make install
```

Gqrx 2.11.2 - airspy=0



Receiver Options

148.480 kHz

Hardware freq: 464.978020 MHz

Frequency 465126.500 kHz

Filter width Normal

Filter shape Normal

Mode Narrow FM ...

AGC Medium ...

Squelch -92.4 dB A R

Noise blanker NB1 NB2 ...

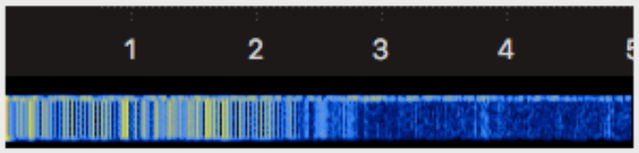
Input controls | Receiver Options | FFT Settings

Bookmarks

	Frequency	Name	Modulation	Bandwidth	Tag
167	465126500	DMR Race C...	Narrow FM	10000	GP
168	465414100	DMR low level	Narrow FM	10000	GP
169	465766100	DMR	Narrow FM	10000	GP
170	467150400	DMR Strange	Narrow FM	10000	GP
171	468826700	P25 Ambo	Narrow FM	10000	GP

- [x] 2m
- [x] AM Broadcast
- [x] Air
- [x] DMR Alt RC
- [x] FM
- [x] GP

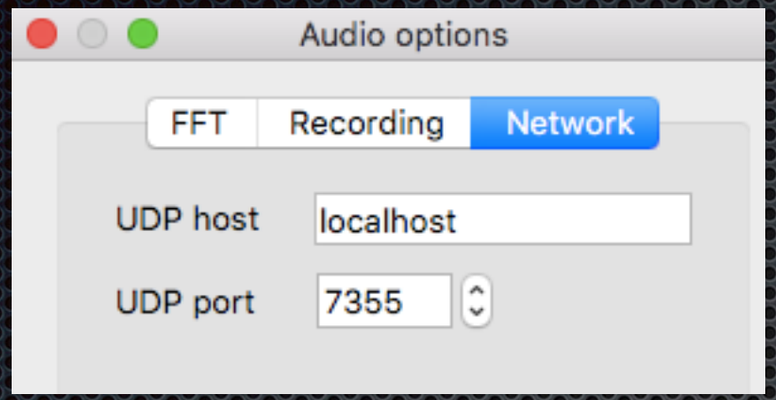
Audio

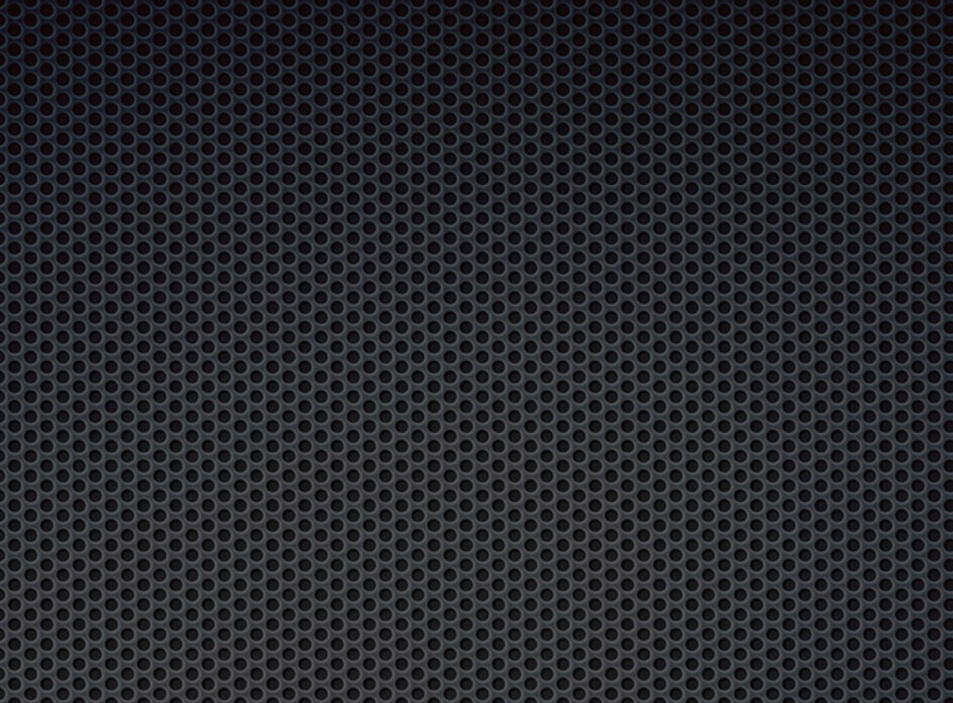


Gain: -2.3 dB

UDP Rec Play ...

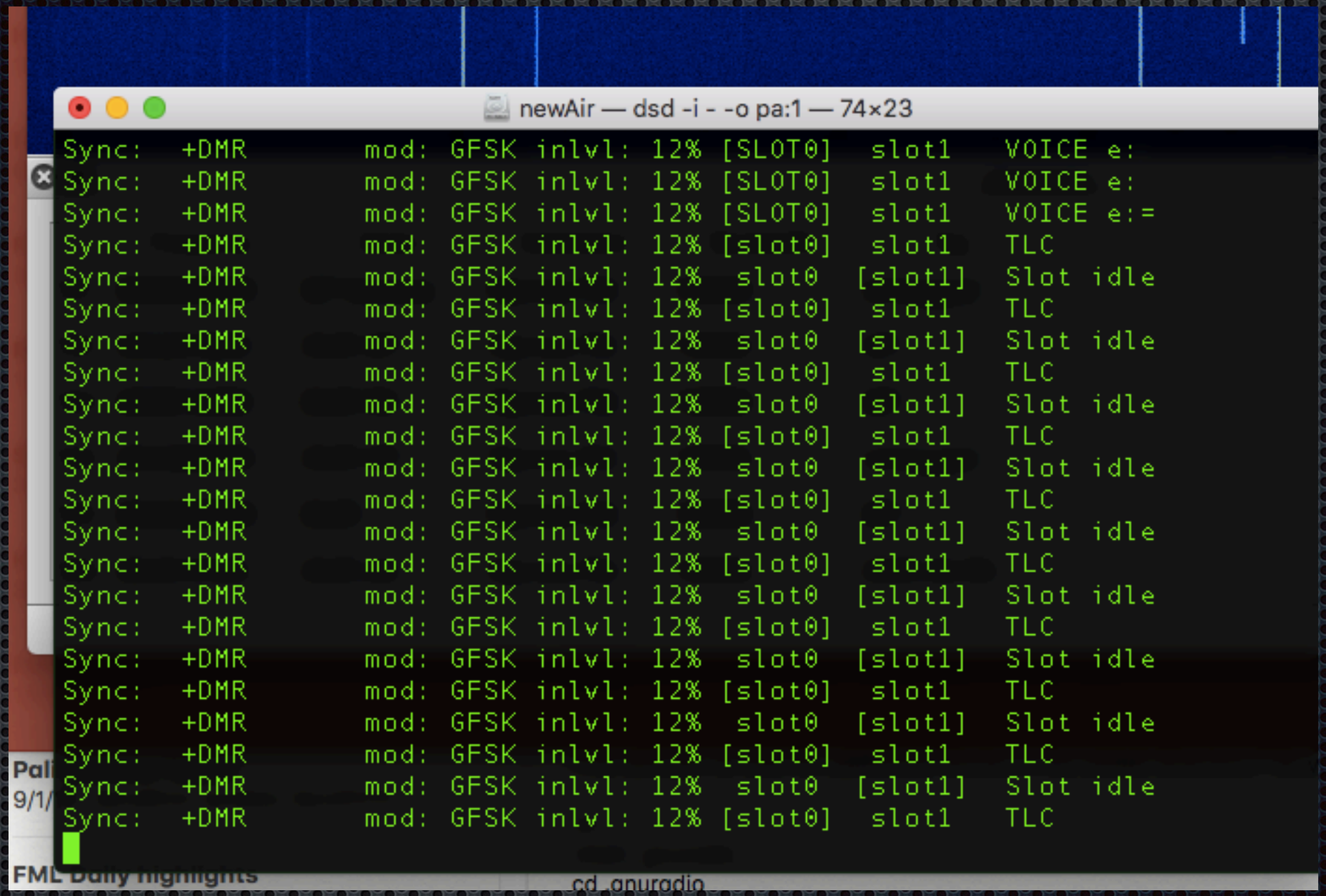
DSP


Audio options
FFT
Recording
Network
UDP host
localhost
UDP port
7355


Input controls
Receiver Options
FFT Settings
Audio
1
2
3
4
Gain:
-2.3 dB
UDP
Rec
Play
...
DSP

pipe audio over UDP into dsd

```
nc -l -u localhost 7355 | dsd -i - -o pa:1
```


newAir — dsd -i - -o pa:1 — 74×23
Sync: +DMR mod: GFSK inlvl: 12% [SLOT0] slot1 VOICE e:
Sync: +DMR mod: GFSK inlvl: 12% [SLOT0] slot1 VOICE e:
Sync: +DMR mod: GFSK inlvl: 12% [SLOT0] slot1 VOICE e:=
Sync: +DMR mod: GFSK inlvl: 12% [slot0] slot1 TLC
Sync: +DMR mod: GFSK inlvl: 12% slot0 [slot1] Slot idle
Sync: +DMR mod: GFSK inlvl: 12% [slot0] slot1 TLC
Sync: +DMR mod: GFSK inlvl: 12% slot0 [slot1] Slot idle
Sync: +DMR mod: GFSK inlvl: 12% [slot0] slot1 TLC
Sync: +DMR mod: GFSK inlvl: 12% slot0 [slot1] Slot idle
Sync: +DMR mod: GFSK inlvl: 12% [slot0] slot1 TLC
Sync: +DMR mod: GFSK inlvl: 12% slot0 [slot1] Slot idle
Sync: +DMR mod: GFSK inlvl: 12% [slot0] slot1 TLC
Sync: +DMR mod: GFSK inlvl: 12% slot0 [slot1] Slot idle
Sync: +DMR mod: GFSK inlvl: 12% [slot0] slot1 TLC
Sync: +DMR mod: GFSK inlvl: 12% slot0 [slot1] Slot idle
Sync: +DMR mod: GFSK inlvl: 12% [slot0] slot1 TLC
cd gnuradio

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