

Standard Operating Procedure

<UsingLibrary>

```
include;

    superapi::supercore;
    superapi::superfftw;
    superapi::superfiledialog;
    superapi::supergroupbox;
    superapi::superlogger;
    superapi::supermultimedia;
    superapi::supernotedialog;
    superapi::superplot;
    superapi::supertab;
    superapi::supertabwidget;
    superapi::superwindow;

public;

    wasapibox public superapi::supertab;
    waspaibox::formatdialog public superapi::superwindow;
```

<WasapiBox>

Refresh Audio Devices

clicked;

add output,input device to combobox;
operate related widgets;

Format Config

clicked;

show audiosink,audiosource dialog;

Speakers / Headphones (Realtek Audio)

textactivated;

add current audio device index to output lineedit;
if wavfile lineedit is empty,set audio format by device;
else set audio format by wav files;
refresh output audio format;
add device maxchannel to channel combobox;

Microphone Array (Realtek Audio)

textactivated;

add current audio device index to input lineedit;
set audio format by device;
refresh input audio format;

0

nousercontrol;

display current audio device index;

Play

clicked;

if wav file lineedit is empty,play signal by signal setting;
else play wav file;

Stop Play Audio

clicked;

stop play audio;

☒ Signal

statechanged;

play signal or wav file;
operate related widgets;

peak

textactivated;

generate pcm data depend on current parameter;

sine

textactivated;

change signal type;
only develop sine wave now;

0.121(db)

1000(hz)

0.00(s)

Both

l.han/Documents/My Music/周杰伦 - 以父之名.wav



Generate Wavfile

Analysis

Stop Analysis Audio

☒ Record

peak

-26.564,-26.564(dbv)

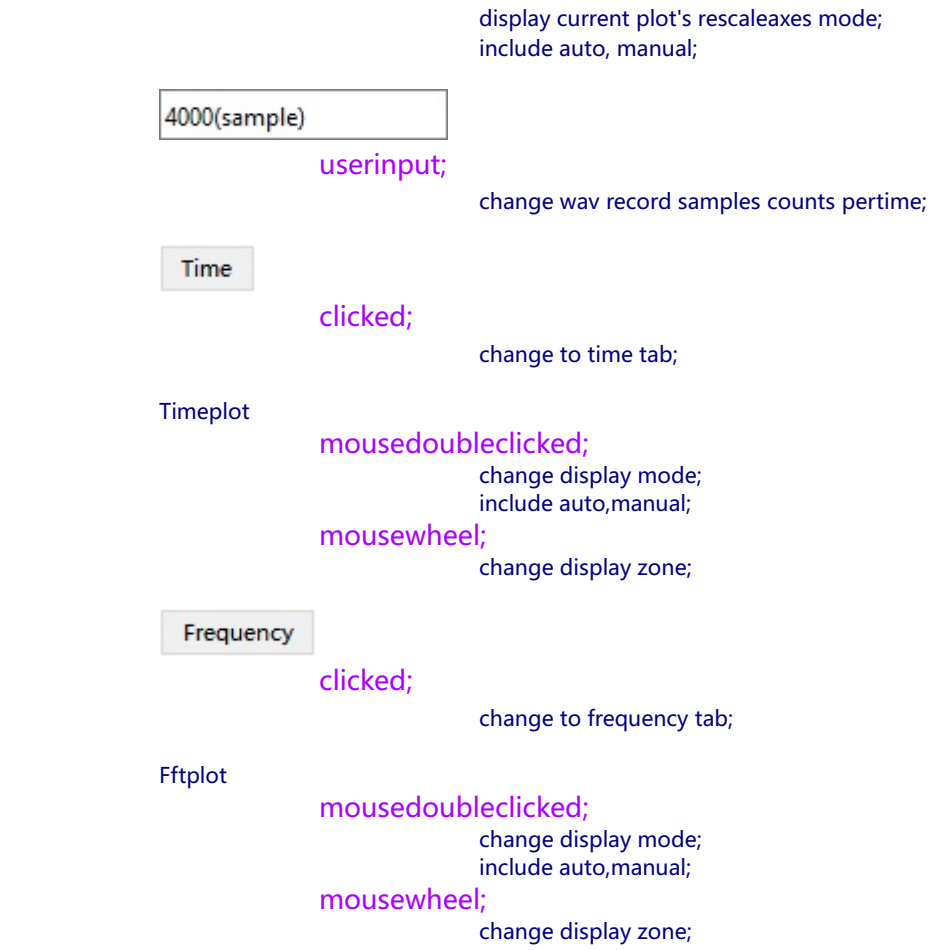
893.401,920.474(hz)

0(degree)

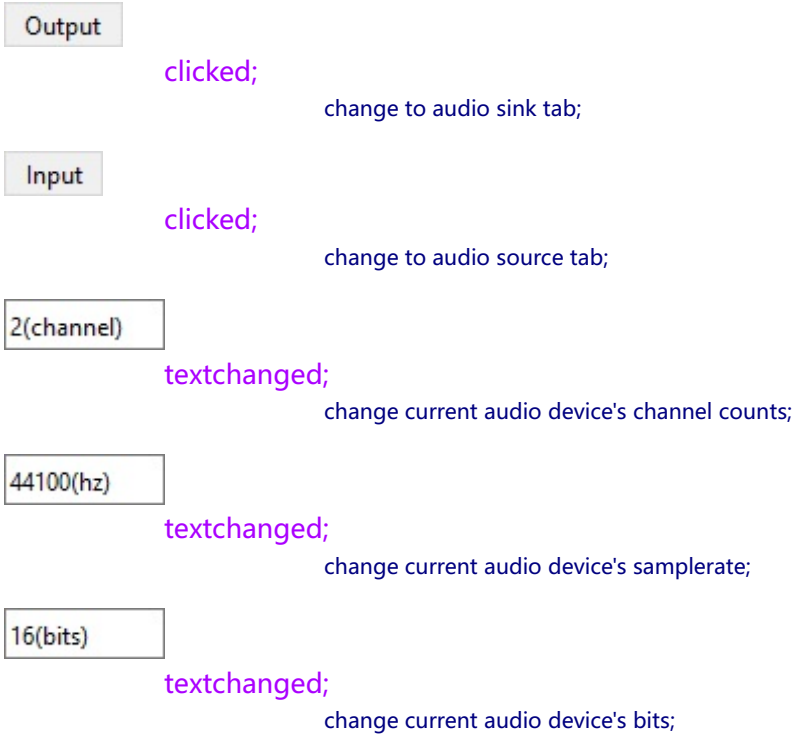
47.610,47.518(thd)

☒ Autoplot

2



`<WasapiBox::FormatDialog>`



Version Logs

`<20220322 Version 1.12>`

update maxsize parameter 512mb as 256mb;

`<20220321 Version 1.11>`

fix not record wav data and add memory bugs;
add record limit function,include size,length;

`<20220209 Version 1.10>`

update signal datatemp 0.1s to 0.01s;

`<20220209 Version 1.09>`

use supertab,supertabwidget,supergroupbox api;

`<20220121 Version 1.08>`

optization play signal class;
optization update figure class;
optization play wav ui user experience;

`<20220107 Version 1.07>`

generate wav file function update;
include select path,input wav file name,
relayout;

<20211208 Version 1.06>

add audio format parameter interface;
include samplerate,bits,channel counts;
fix play last time signal flashback bug;

----hyman,wade,qink;

<20211207 Version 1.05>

add generate signal data depend rms options;
add auto range frequency tab plot function;

----hyman,wade,qink;

<20211126 Version 1.04>

add open path tips after record file;

<20211029 Version 1.03>

add generate wav file function;

<20211019 Version 1.02>

optization user experience;
delete limit double spinbox;
delete limit checkbox;

<20211013 Version 1.01>

fix change dbv mode function;

<20211003 Version 1.00>

first release;