# **Audio Calculation Tests**

## Non-automated Tests

Comparison tests for peak and LUFs calculations were run against Orban Loudness Meter with some test files and results were summarized in “SoundOff LUFS and True Peak Test.pdf”

## Automated Tests

The automated tests for opening the files, calculating the peak, and calculating the LUFs are located in “audio\_calculations\_tests.py”.

### **To run the tests**

In a terminal opened at the folder:

GitHub/SoundOff/SoundOff-seperate\_files\_classes/Testing

Run the command

Pytest audio\_calculations\_test.py

you should see 8 tests passed and no failed.

### **To run the coverage reports**:

In a terminal opened at the folder:

GitHub/SoundOff/SoundOff-seperate\_files\_classes/Testing

Run the command

coverage run -m pytest audio\_calculations\_tests.py

Pdfs of the coverage reports can found in the folder: GitHub/SoundOff/SoundOff-seperate\_files\_classes/Testing

They are named:

CoverageReportFor\_audio\_calculations.py.pdf

CoverageReportFor\_audio\_calculations\_test.py.pdf

# **User Interface Tests**

## Non-automated Tests

Other “tests” for the under interface are located in the “User Interface Testing.doc” which verifies resulting output from given input.

## Automated Tests

The automated tests for the user interface are located in “interface\_testing.py”.

* Note that this test is dependent on the dimensions of the computer being used and because of that may not return consistent results when run on other screens.

# **Static Analysis**

In order to conduct static testing, the module pylint was installed. To run a static test on a file, the line “pylint [file\_name].py” was run from the terminal.

Results of Static Analysis can be found in the folder: GitHub/SoundOff/SoundOff-seperate\_files\_classes/Testing

In the document named: “Static Testing Results”

# **Libraries Used**

The following libraries were imported to be used in the program and are included in the executable file:

Ffmpeg

Tkinter

Sqlite3

Subprocess

Soundfile

Moviepy.editor