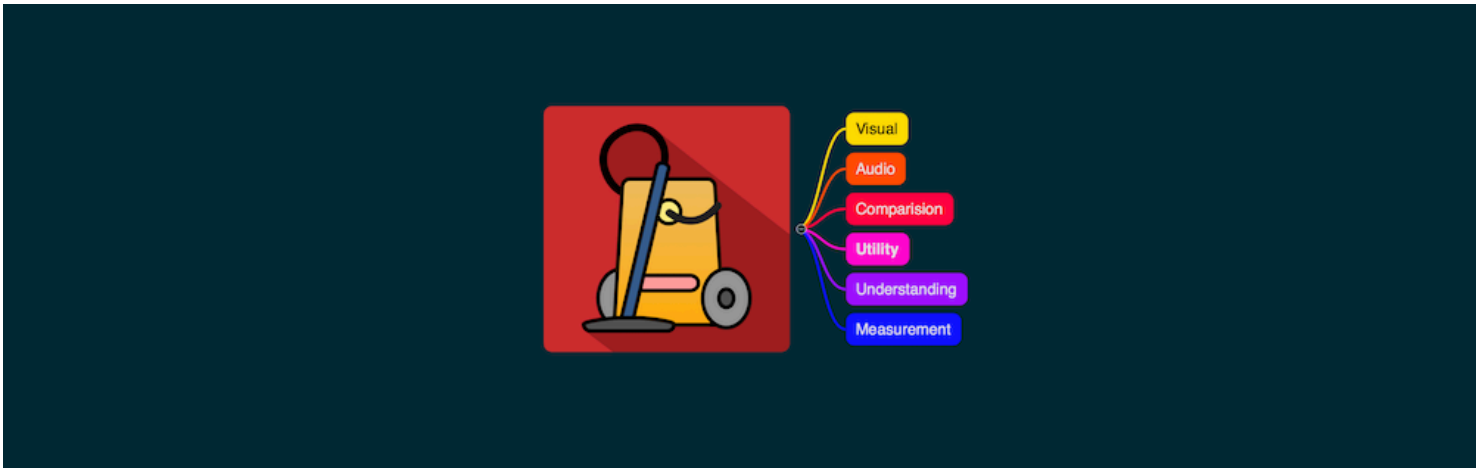
VACUUM - (tuneBuildTest_469, 470)



VISUAL AUDIO COMPARISION UTILITY [FOR] UNDERSTANDING [AND] MEASUREMENT

A testing and analysis workflow

Table of Contents

Imports

```
Librosa
IPython
Numpy
Scipy
Matplotlib
```

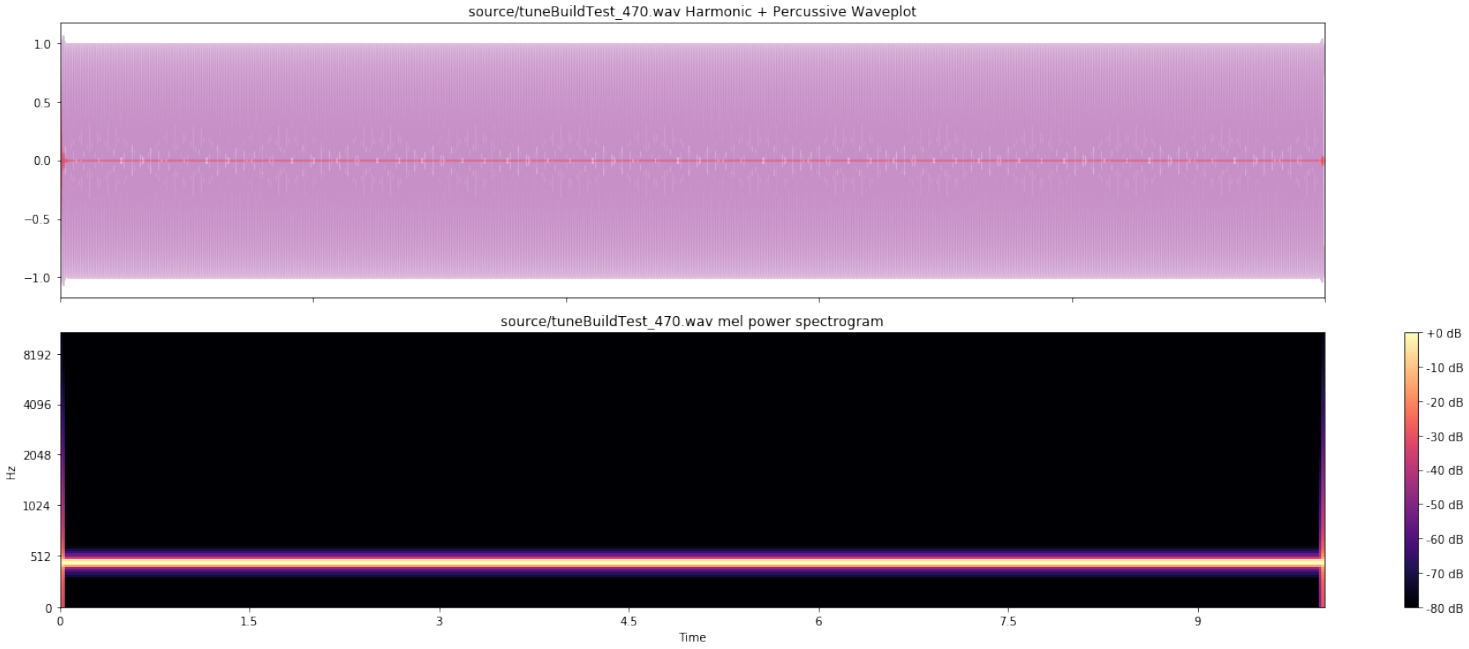
Let’s bring the files in

Source1 Track (tuneBuildTest_470.wav)

Open Source1, get some basic statistics and create a player

```
File: source/tuneBuildTest_470.wav
Duration: 10.0000 sec
Tuning estimate: 0.16000000000000003
```

Let’s take a first look at the file

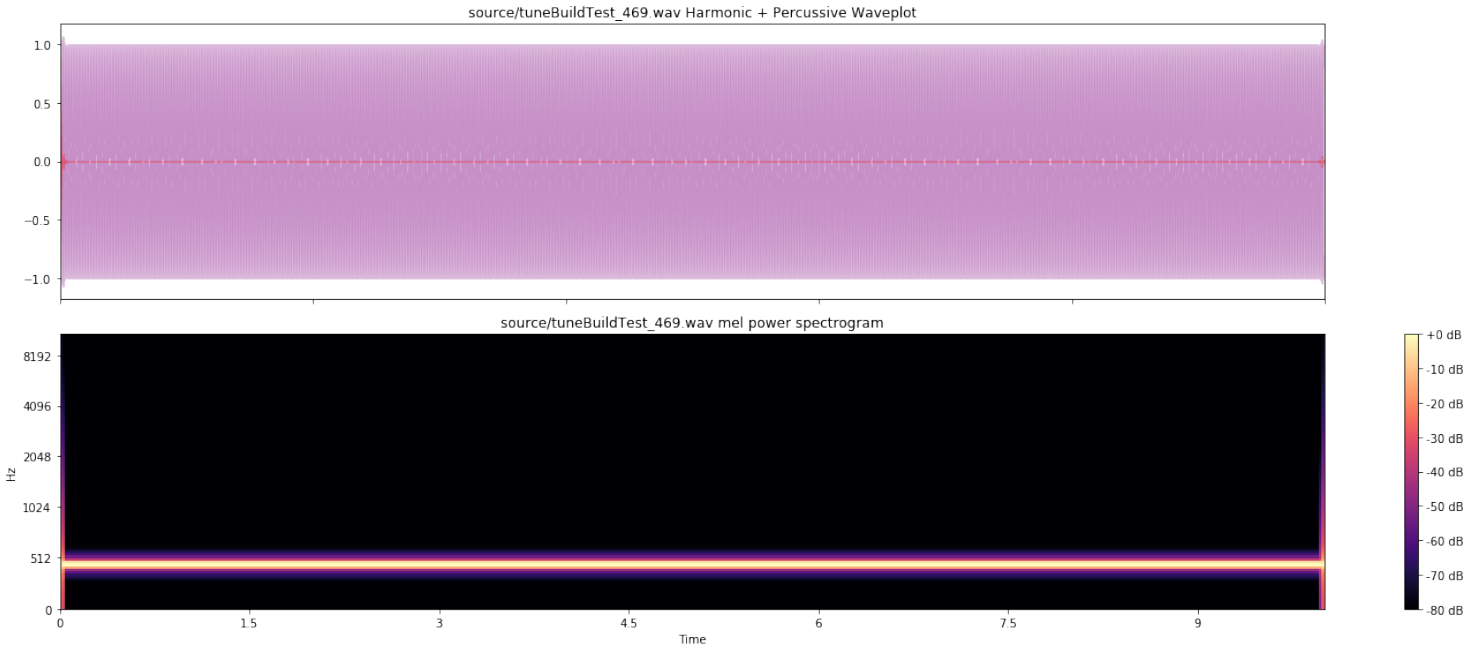


Source 2 Track (source/tuneBuildTest_469.wav)

Open Source2, get some basic statistics and create a player

```
File: source/tuneBuildTest_469.wav
Duration: 10.0000 sec
Tuning estimate: 0.10999999999999999
```

Let’s take a first look at the file

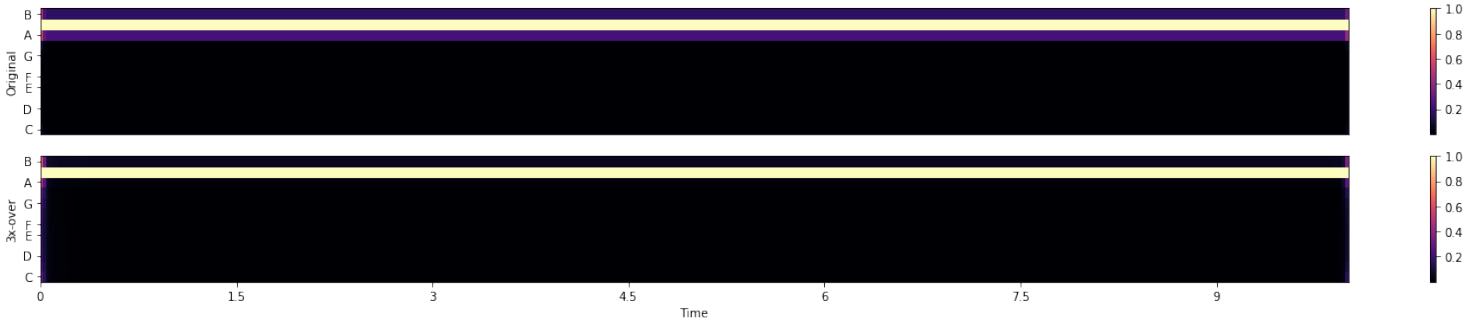


Enhanced chroma and chroma variants (source1)

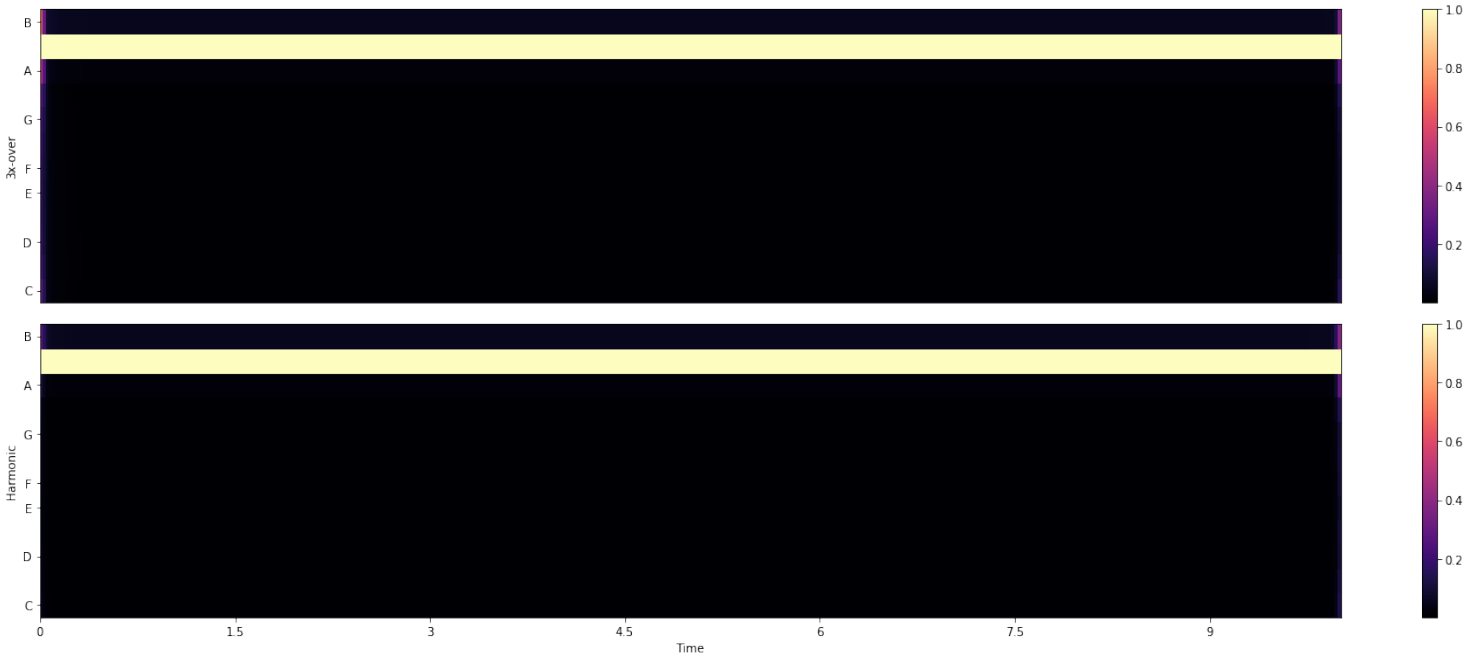
Enhanced chroma and chroma variants

Original source1

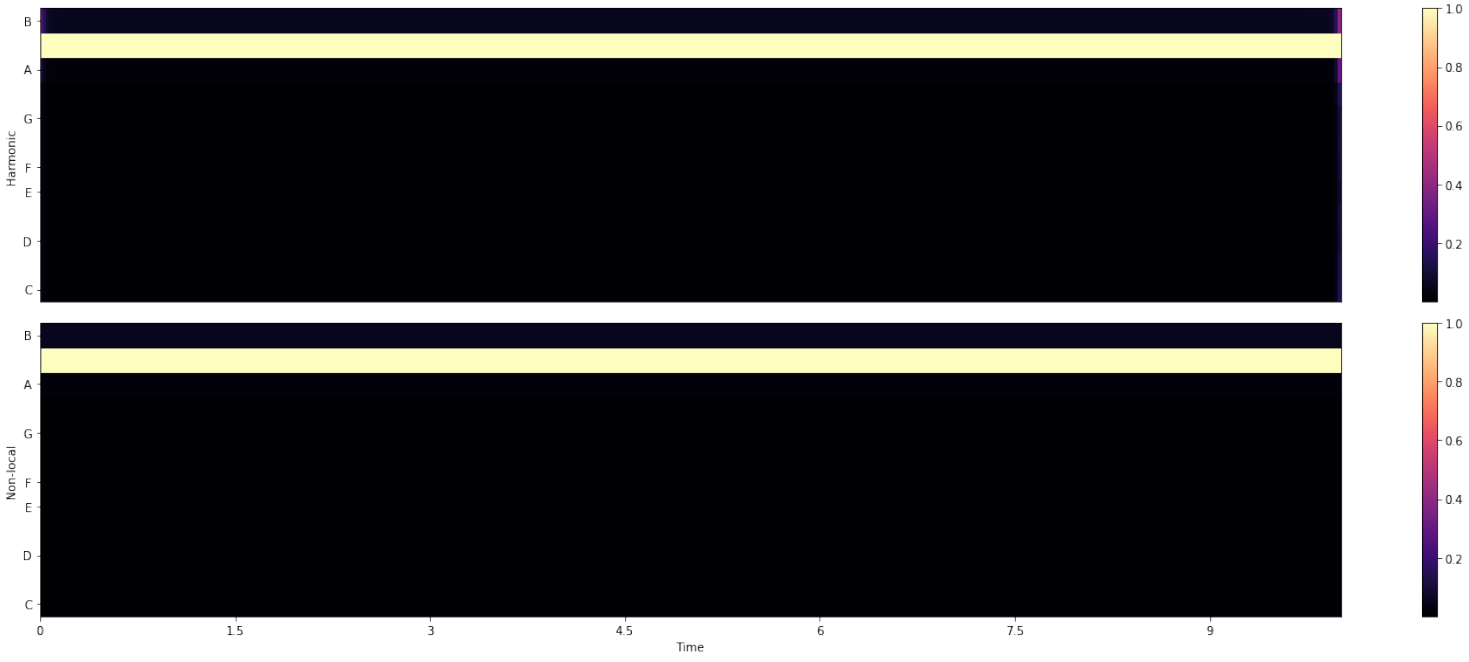
Correct Tuning Deviations



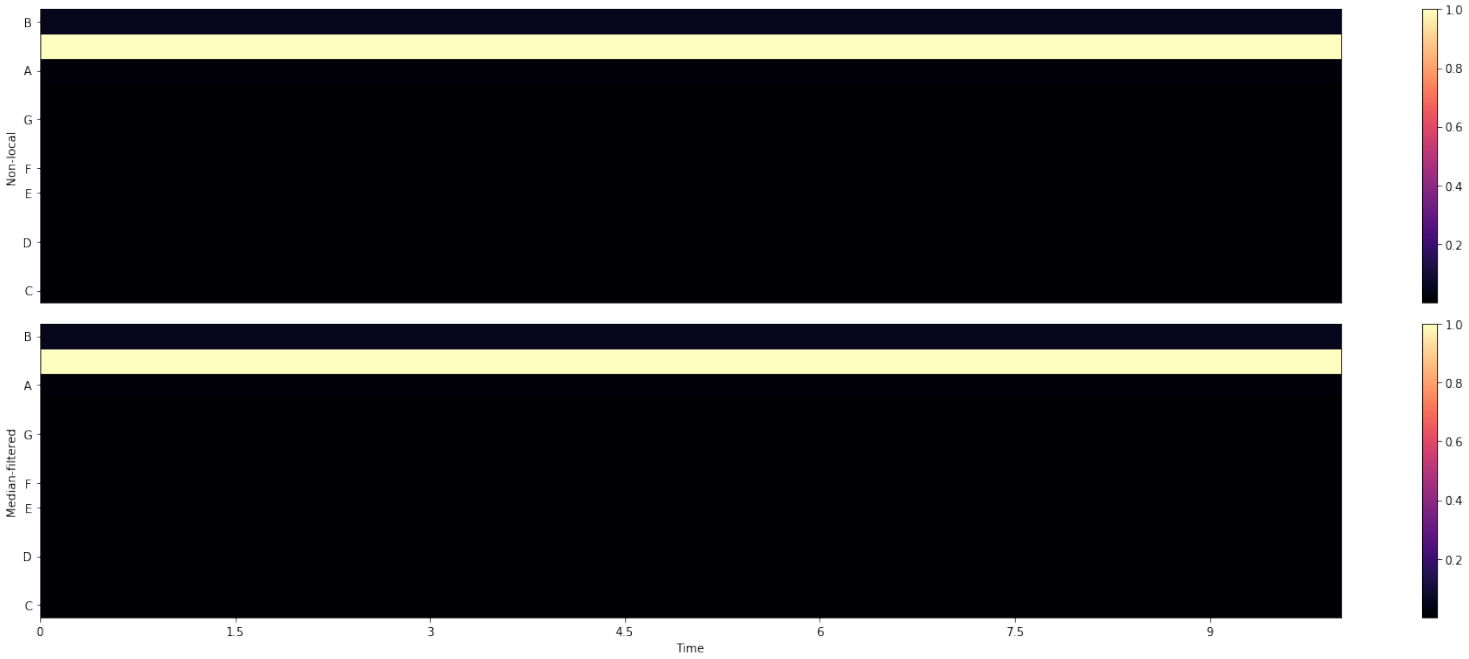
Isolate harmonic component



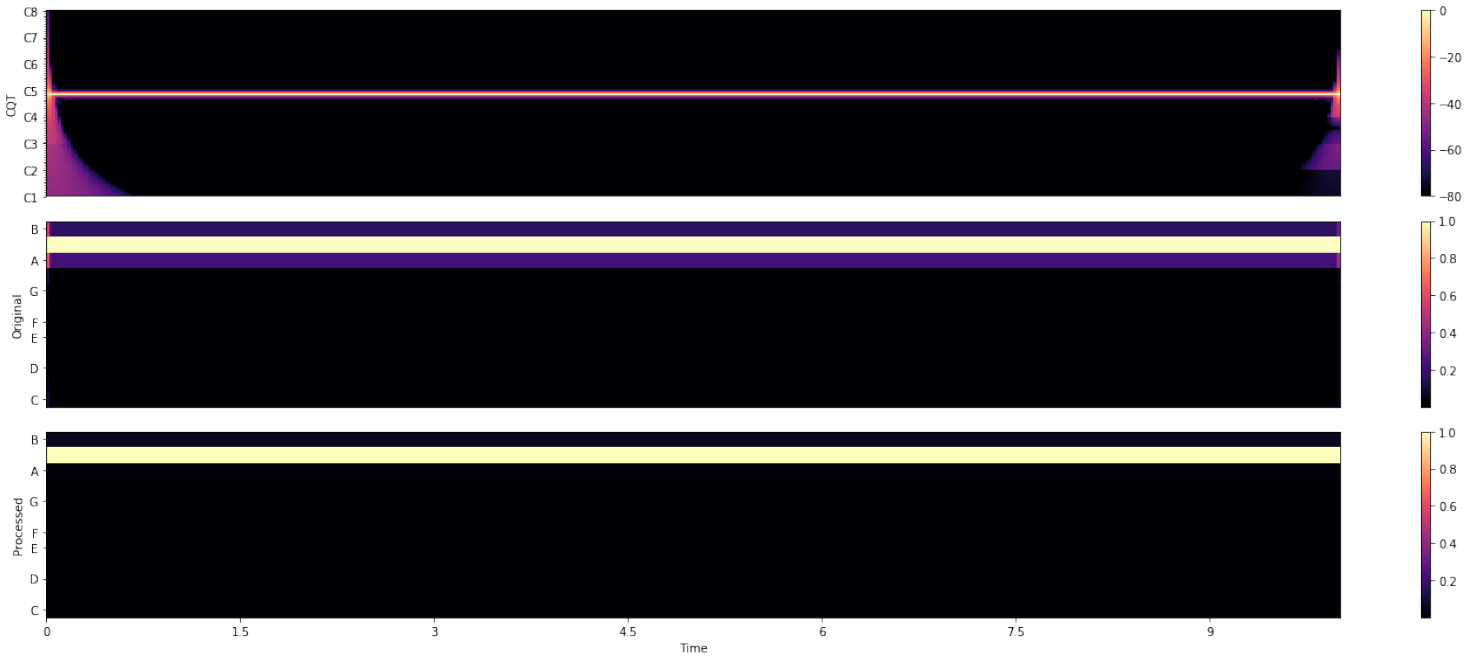
Non-local filtering



Horizontal Median Filter

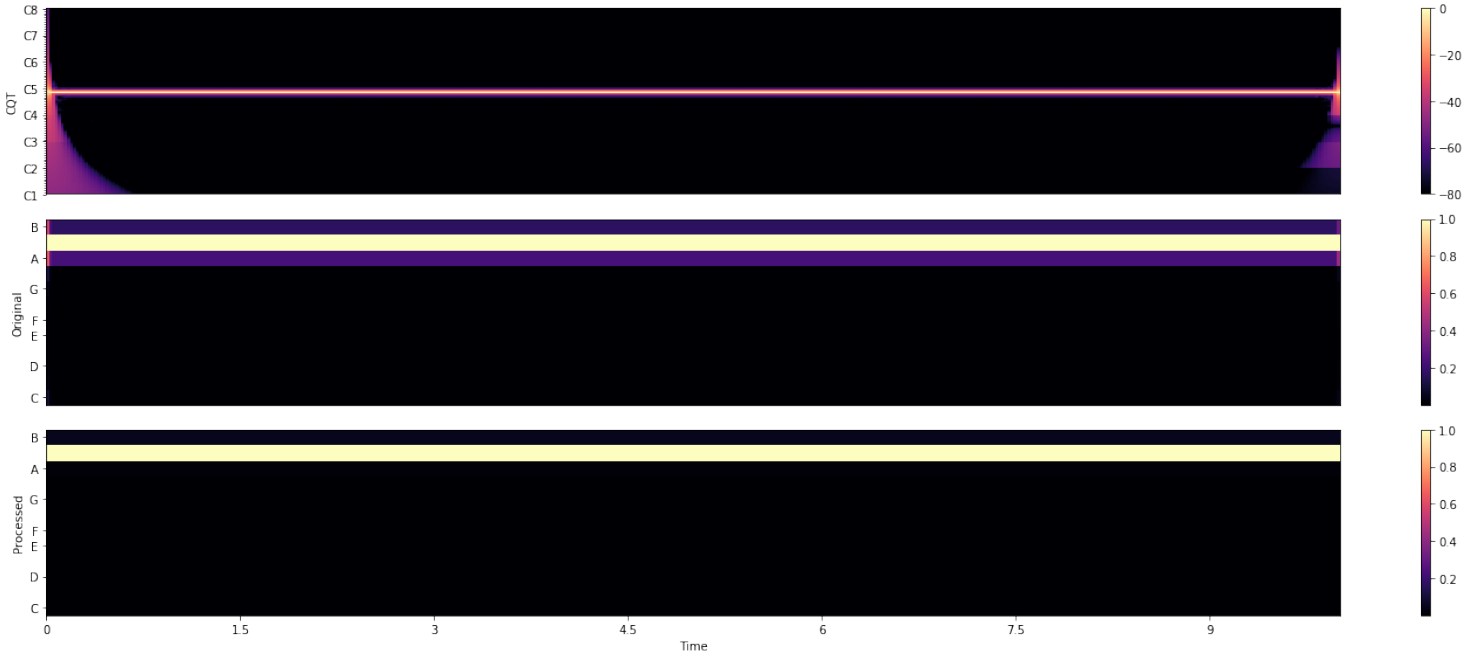


Before and After

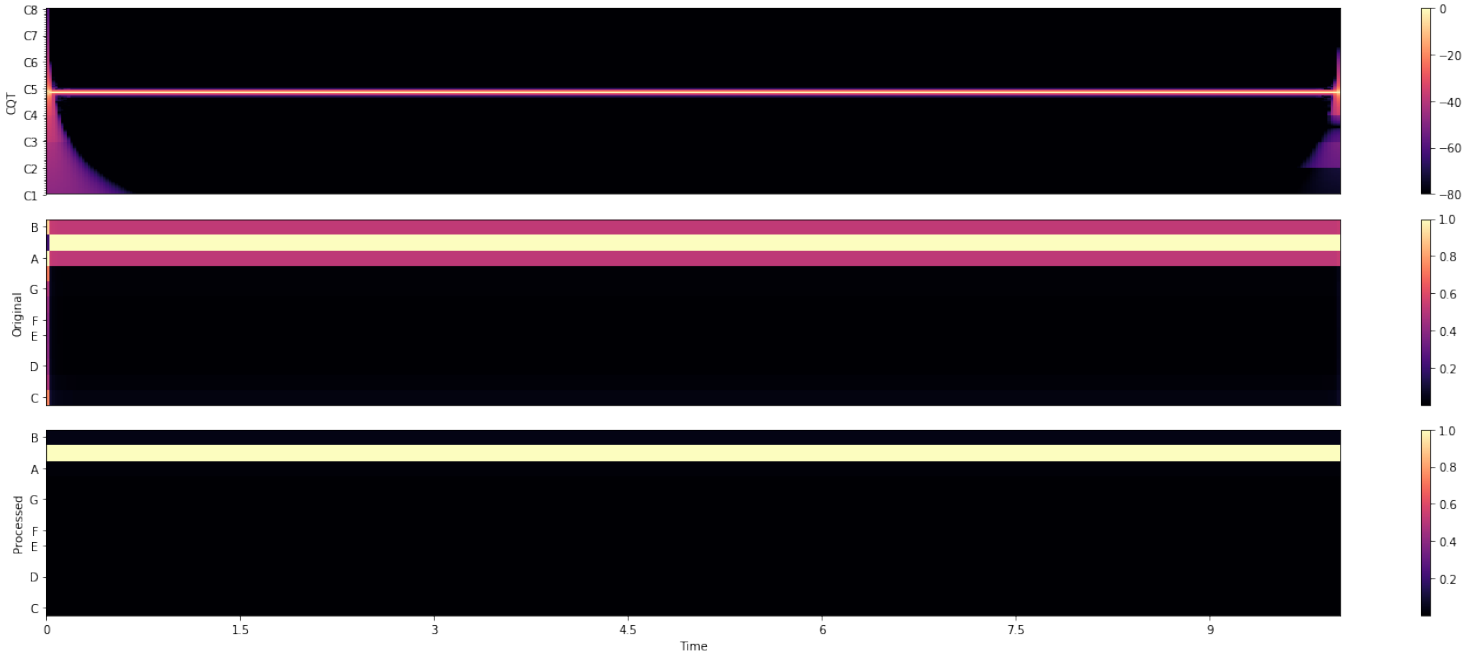


Applying chroma enchancement techniques to source files

Source1



Source2



Output comparisions for testing

Source1

Source2

Run imageDiff

```
SSIM: 0.9957568423304357
```

Source1

Source2

Diff

Threshold