MIR + ASSIGNMENT # 5

Question 1.1 Using the Sonic Visualizer tools, visualize the segmentation results of the two plugins for two audio files of your choice. Provide screenshots of the segmentation results.

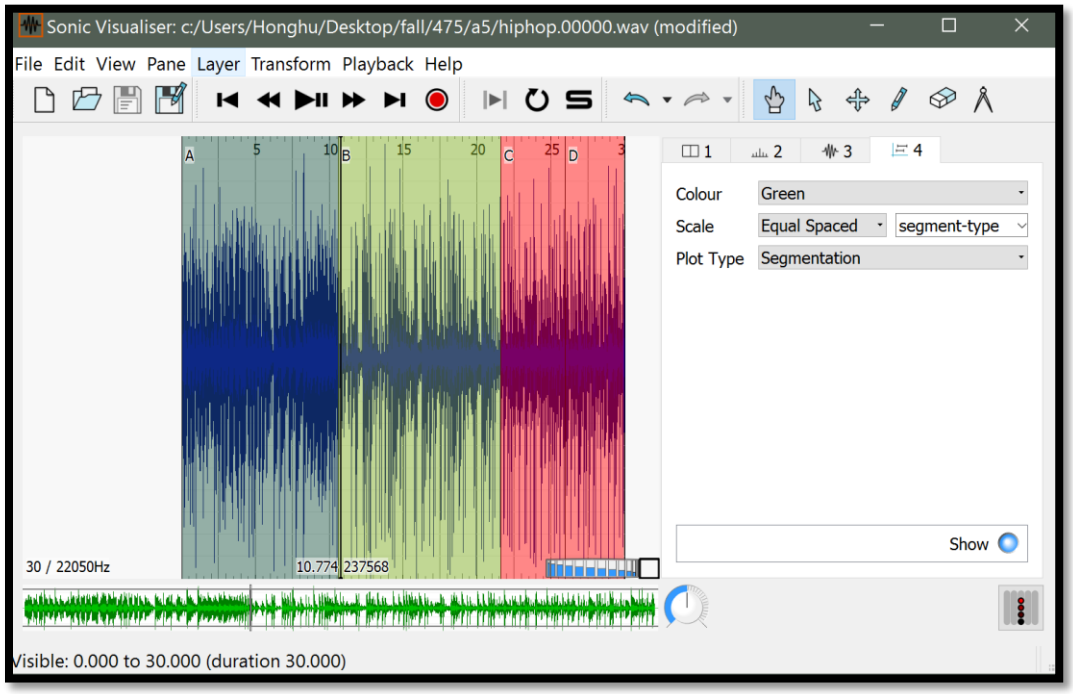

Figure for Segmenter Result (audio = hiphop.00000.wav)

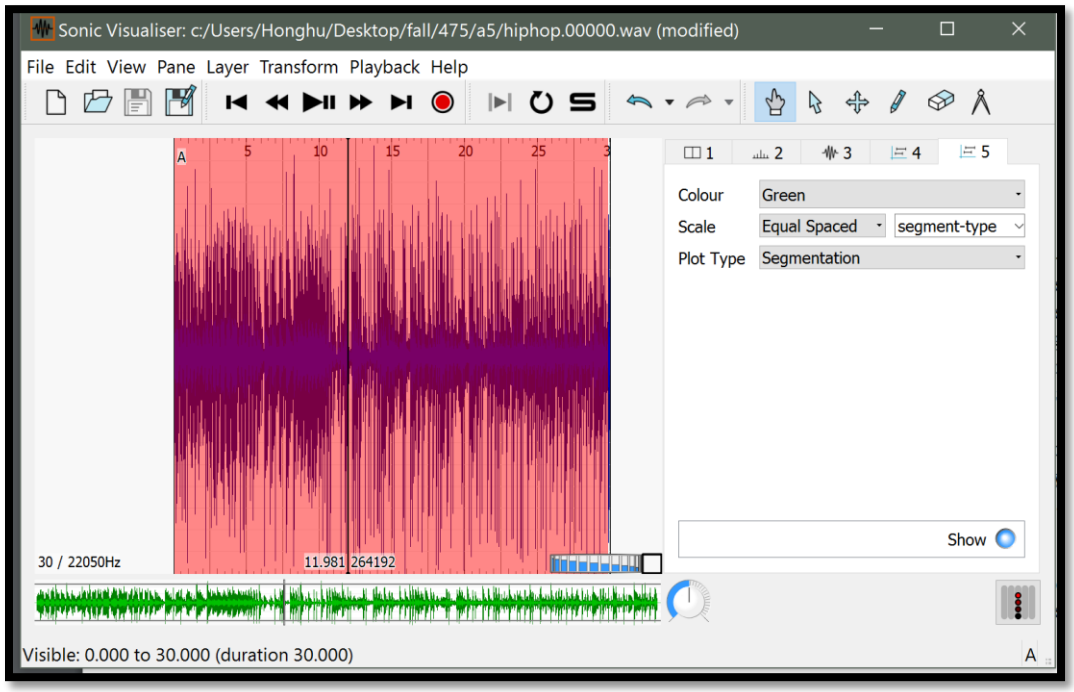

Figure for Segmentino Result (audio = hiphop.00000.wav)

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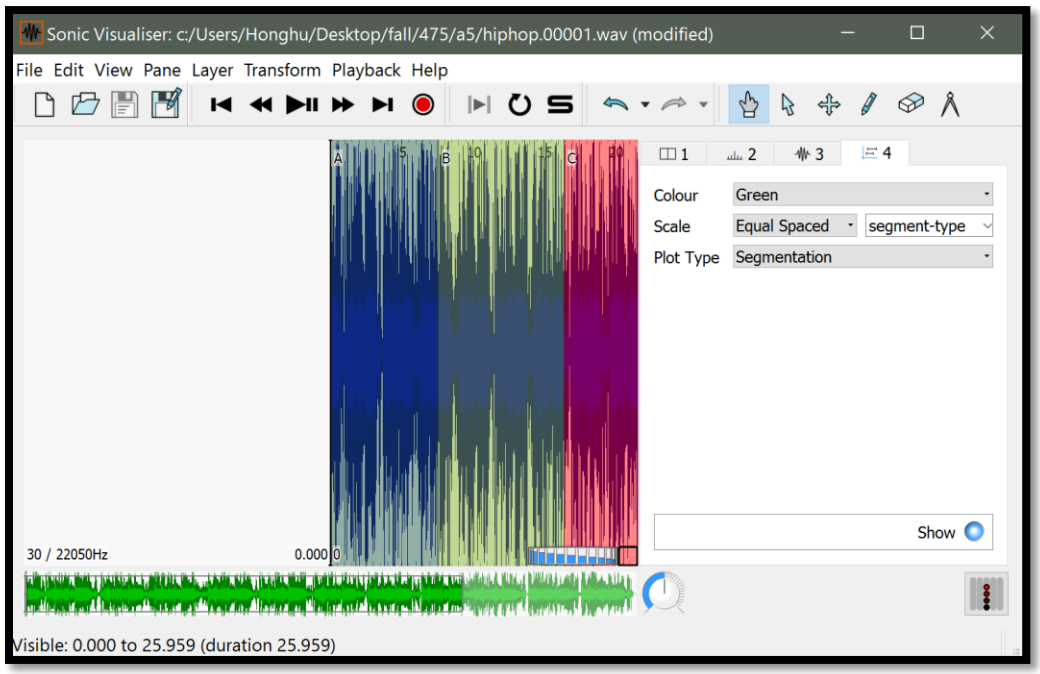

Figure for Segmenter Result (audio = hiphop.00001.wav)

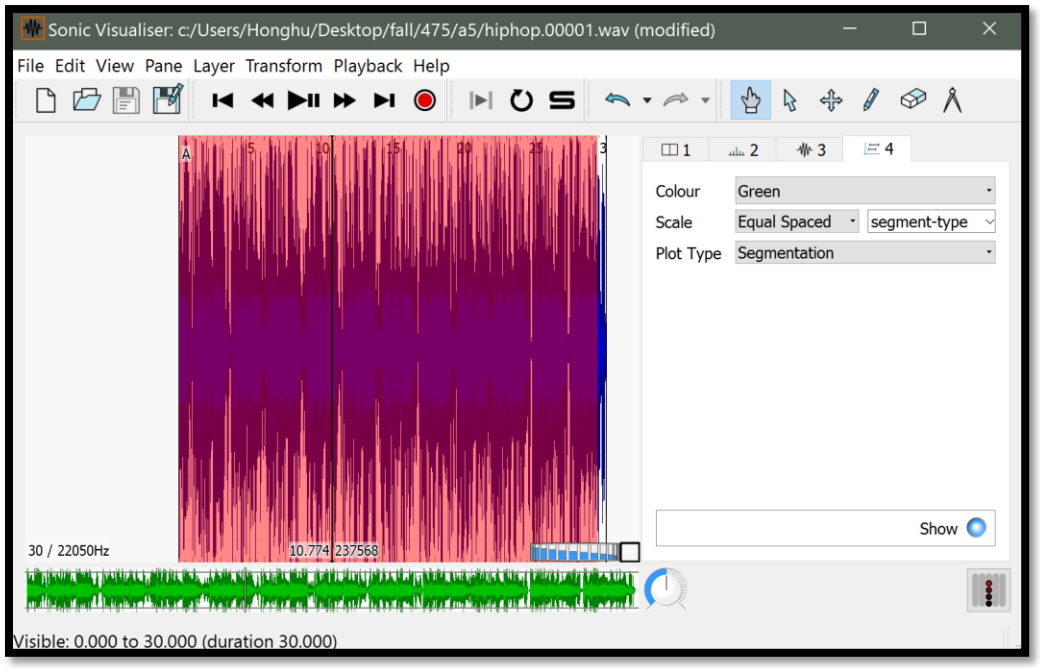

Figure for Segmentino Result (audio = hiphop.00001.wav)

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Question 1.2 Using the Sonic Annotator tool, show how you can process the same two files from the commend line. Show the commands you used.

```
C:\Users\Honghu\Desktop\fall\475\a5\sonic-annotator-v1.5-win64>sonic-annotator -t segmentino.n3 -w rdf hiphop.0
0000.wav
Have audio source: "hiphop.00000.wav"
Decoding hiphop.00000.wav... Done
File or URL "hiphop.00000.wav" opened successfully
```

```
C:\Users\Honghu\Desktop\fall\475\a5\sonic-annotator-v1.5-win64>sonic-annotator -t qm-vamp-plugins.n3 -w rdf hip
hop.00000.wav
Have audio source: "hiphop.00000.wav"
Decoding hiphop.00000.wav... Done
File or URL "hiphop.00000.wav" opened successfully
Taking default channel count of 1 from audio file
Taking default sample rate of 22050Hz from audio file
(Note: Default may be overridden by transforms)
```

Question 1.3 using any tool do a structural segmentation of the audio yourself. For example you can use Audacity and a label track to annotate the segments. Convert your manual segmentation and the two automatic segmentations for each song to the same format and compare them by listening. Describe in words what the differences are.

For segmenter, for audio with clearly tonally distinct sections. Segments with the same type is anticipated to be alike to one another structurally. For instance, repetitions of the audio are likely to share a segment type. This plugin only attempts to identify similar segments; it does not attempt to label them, in which it makes no attempt to tell you which segment is what. Whereas for segmentino, the repetition of harmonic sequences in the running audio is that overlapped with structural segments in a song, which their corresponding segments have the same length in beats.

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Question 2.1 Use the vampy host to run the segmentation plugins from the previous question inside Python for the two files you processed. You can find the code at: https://code.soundsoftware.ac.uk/projects/vampy-host.