

pYIN — pitch and note tracking in monophonic audio - Bug #834

Problems for the SonicVisualiser Plugin Yintony.

2013-12-26 05:18 PM - Luwei Yang

Status:	New	Start date:	2013-12-26
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:			

Description

In the Yintony plugin, there is a transform which is called **Yintony, monophonic pitch and note tracking based on Yin. Estimate f0 of monophonic material using the Yin method**. I want to use this transform to get the f0 from Yin. However, some data points were missing when I exported the annotation layer data.

History

#1 - 2014-01-09 06:25 PM - Matthias Mauch

This refers to Yintony, but the YIN implementation in pYIN does leave some estimates out, if they are outside a frequency range, even if the parameter is set so that frequencies recognised as unvoiced are always returned. The range is set to 40...1000 at the moment.

To be clear, there are three output modes:

1. Output estimates classified as unvoiced -- No ... outputs frequencies that are recognised as voiced and that are also inside the frequency range
2. Output estimates classified as unvoiced -- Yes ... outputs an estimate for each frame, except when outside the range
3. Output estimates classified as unvoiced -- Yes, as negative frequencies ... same as Yes, but with frames recognised as unvoiced multiplied by -1

Is that the behaviour you see, Luwei? I assume you refer to situation 2 -- and I agree that it would be more intuitive to output everything, though visualisation might suffer because some very high frequencies are likely to be output.

I'm not entirely sure whether to change that. Maybe you could explain to me whether this is the problem, and why it is a problem for you.

#2 - 2014-01-13 12:03 PM - Luwei Yang

Yes, what I want is to output everything. Because I want to use the pitch contour for vibrato detection.

For example, I want to detect the vibrato of erhu or violin. I use the Yintony to obtain the pitch contour, then i use the pitch contour to detect where and how long of the vibrato is. In my case, I am not sure what is the unvoiced meaning for instrument. Does it mean there is no instrument playing at that time?

It is ok if the YINTONY do not output the unvoiced part. But i need to adapt my algorithm to that. However, if it can output everything in other words every frame, it would be very convenient for me. Is there any option to use to choose the output in TONY?

In the YINTONY plugin, there is a tick box "always output a pitch", I guess that's for situation 2.