

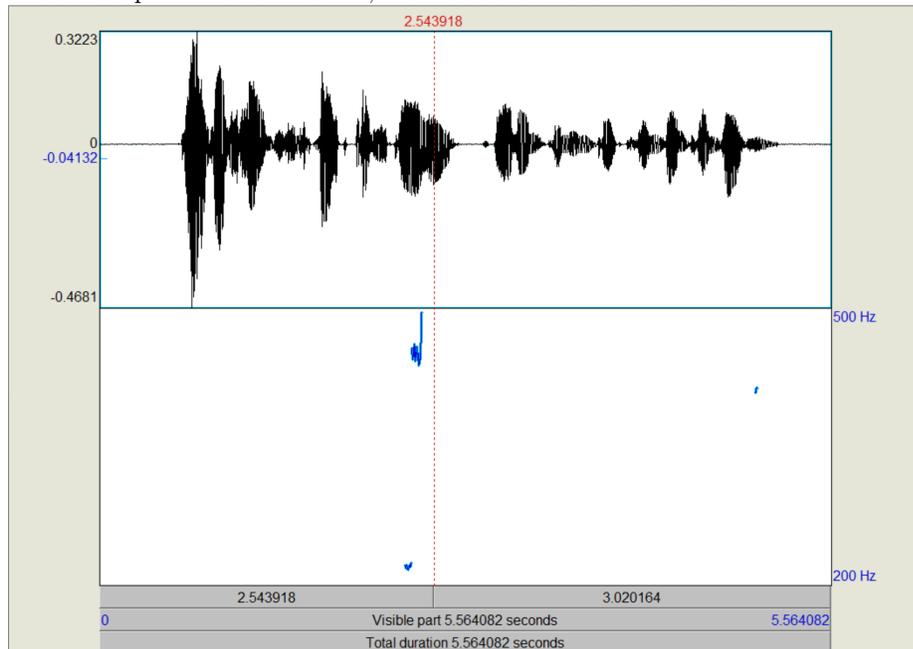
# ShS - Homework 3

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## 3.1

If the Pitch range is decreased, by, as the example suggests, changing the lower bound to 200 Hz, the algorithm is less likely to match the waveform to its corresponding frequency if any periodicity does occur. This is to be expected since the range of possible frequencies is decreased. As a result of moving the lower bound up from 75 to 200 Hz, the voiceless stretch is increased.



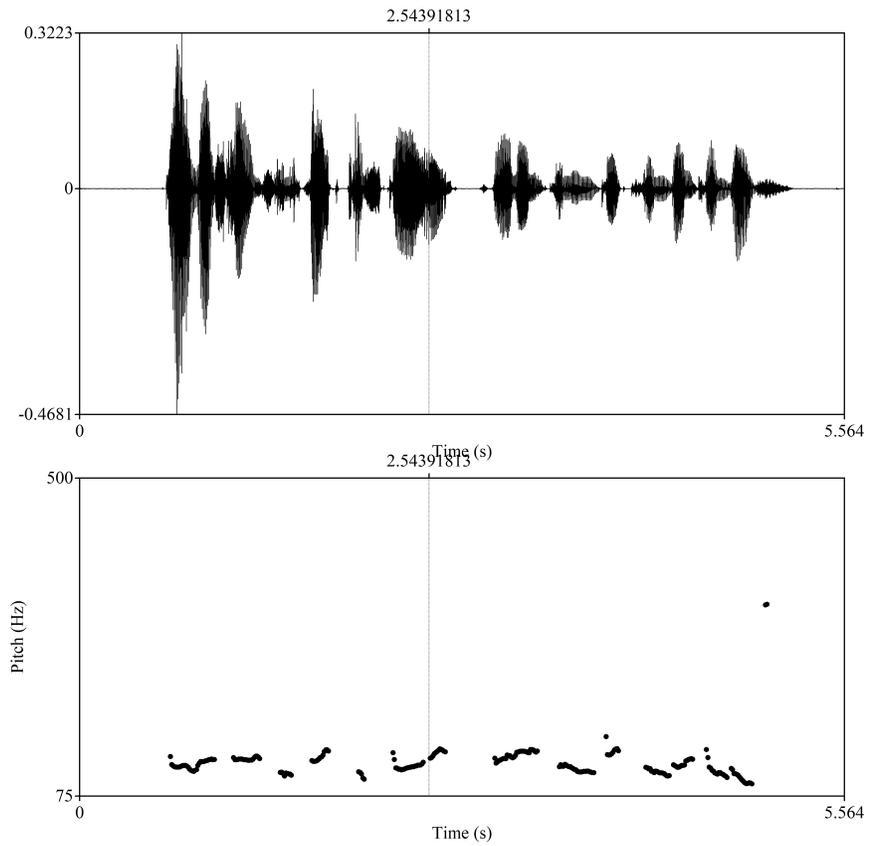
## 3.2

Since this threshold dictates how high the amplitude of part of the waveform has to be to be analysed by the pitch algorithm, increasing this threshold will result in fewer parts of the sample being deemed voiced.

### 3.3

With a higher threshold, the analysed parts of the waveform need to have a higher degree of periodicity in order for them to be seen as voiced. Thus, increasing the threshold will result in less voiced parts according to the algorithm, and vice versa.

### 3.4



3.7

g)

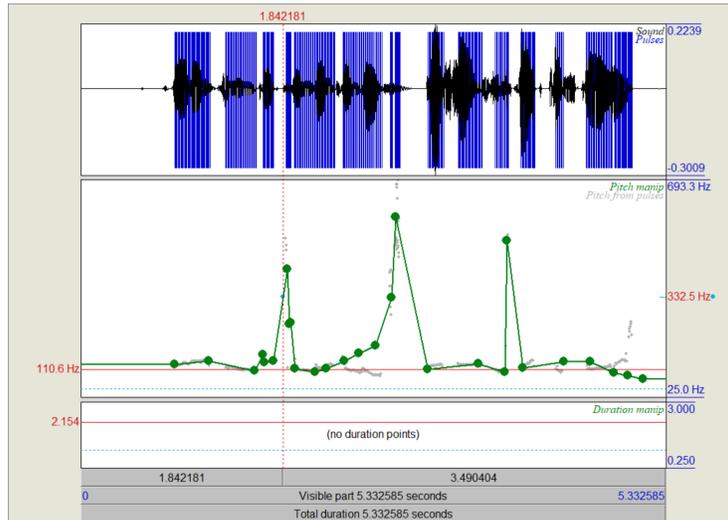


Figure 1: ManipulationEditor - sa

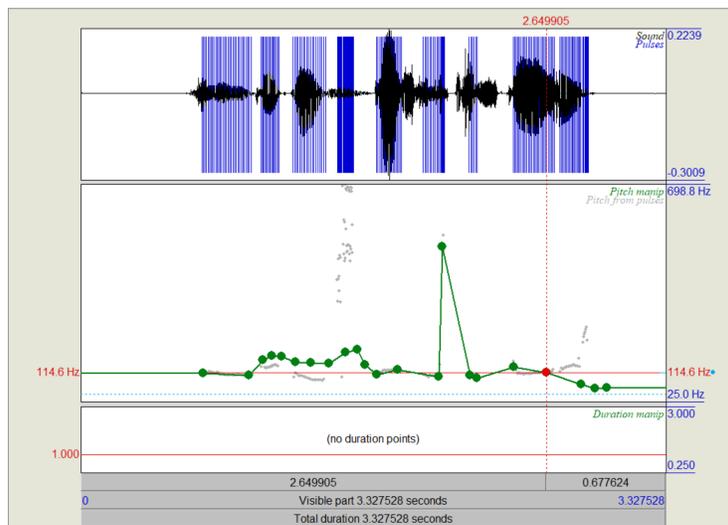


Figure 2: ManipulationEditor - sb

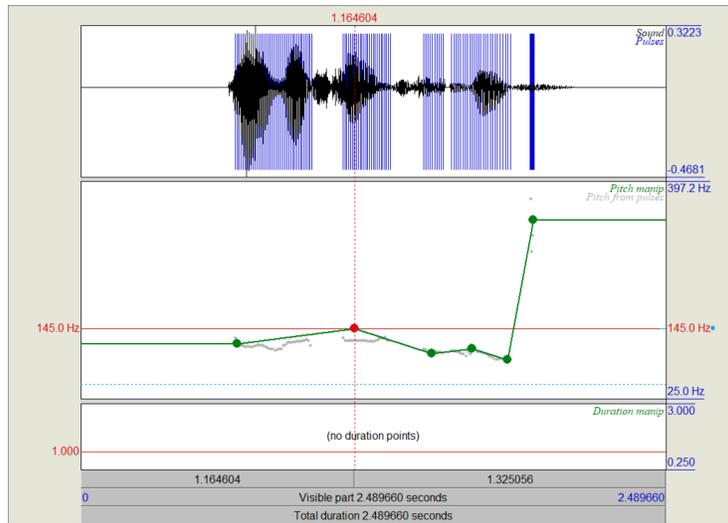


Figure 3: ManipulationEditor - sc

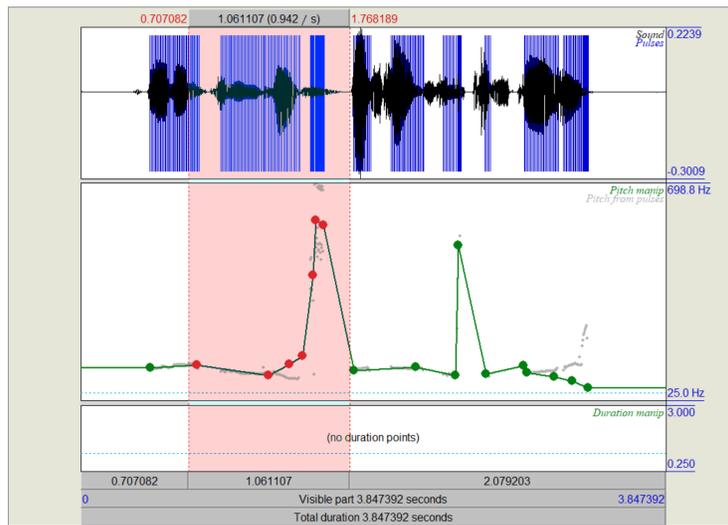


Figure 4: ManipulationEditor - sd

i) While the synthesised sentences still didn't sound completely natural, there was quite an improvement when it comes to intonation.