

Spraakherkenning en synthese (sep-dec 2008)

Assignment 1: The computer program Praat

In this assignment we will use the program Praat for analysis and manipulation of a speech sentence.

1. Download and install praat from <http://www.praat.org/>. After you have opened Praat two windows appear, an object window and a picture window. Both windows are empty.
2. Read the “Praat intro” that you find in the Help menu.
3. Try to record a sentence, or download one from the IFAcorpus (the sentences in this corpus you can find in one of the subdirectories of the following URL: <http://www.fon.hum.uva.nl/IFA-SpokenLanguageCorpora/IFAcopus/SLspeech/sentences/fm/>. The audio files have the extension .aifc. You can read this file with Praat by using the “Read from file...” command that you can find in the Read menu.)
A sound object has appeared in the the object window and at the same time a whole list of new menu choices in the “dynamic menu”.
4. Make a spectrogram of the sound.
5. In the soundeditor which opens after clicking the “Edit” command, you can now select words and individual phonemes and listen to them. To avoid click sounds caused by sudden jumps in sound amplitude, use the commands “Move start/end of selection to nearest zero crossing” in the editor’s Select menu, before listening to a selection.
6. Make a few new sentences by concatenating words taken out of the original sentence (for example, in file F28G1FT2A_fm.aifc in subdirectory F60E a female talker speaks “Er was eens een oud kasteel midden in een diep en donker bos”. Some new sentences:
 - a) In een diep en donker bos was eens een oud kasteel
 - b) In een diep bos was een kasteel
 - c) Er was eens een bos
 - d) Midden in een bos was een kasteel.)
7. Try to make some new words by concatenating phonemes taken from the words (for example, try to make “last” en “stal” from “l”, “a” and “st”).

Describe your experiences concisely.¹

¹Hand in your assignment in BlackBoard’s Dropbox as a pdf file. The name *must* conform to <studentnumber>_assignment01.pdf. For example, Jan Janssen with student ID 123456 delivers as 123456_assignment01.pdf.