

PreProcess_3_2.praat

Task:

Script to convert the sampling rate, select a recording channel, remove DC-offset and adjust the amplitude of all sound files in a directory. DC-offset removal or amplitude scaling will overwrite existing files .wav-files; changing sampling rates or converting stereo recordings to mono will generate new .wav-files; reading any sound files that are not .wav files will copy them into .wav files.

Parameter:

The screenshot shows a dialog box titled "Run script: PreProcess parameters:" with the following fields and callouts:

- directory:** [Empty text box] - Callout: Directory path
- extension:** wav - Callout: Sound file name extension
- rate:** 0 - Callout: Sampling rate
- mono flag:** take left channel - Callout: Channel selection
- zero flag:** - Callout: DC-offset removing
- scale flag:** peak amplitude - Callout: Amplitude and intensity scaling
- scale:** 0.99 - Callout: Amplitude or intensity scaling parameter

Buttons at the bottom: Standards, Cancel, Apply, OK.

Directory path:

The script handles all sound files in a directory. The path of this directory can be specified in this field. If this field is left empty, the script will handle all sound files in the directory, where the script was started (i.e., the script is placed in the same directory as the sound files).

Sound file name extension:

The extension of sound file names to be processed (case sensitive). Note that the output files are always in 16-bit .wav format, even if no modification of the sound file has been performed (i.e., the script can be used to convert all sound files in a directory into the .wav format)

Sampling rate:

The sampling rate of the output file. A value of '0' will not change the sampling rate. Any other value will generate new files with the indicated sampling rate (even if it is identical to the original sampling rate). Specifying a sampling rate other than '0' will generate new sound files, preserving the original files.

Channel selection:

Stereo recordings can be left unchanged, converted to mono recordings by taken the left or right channel or by mixing both channels into one. Converted stereo recordings will be stored in new sound files, preserving the original files.

DC-offset removing:

Setting this flag will try to remove the DC-offset of a recording. The procedure computes the average amplitude of all samples of a file and subtracts this average subsequently from each sample. The output of this procedure will overwrite an input file, as long as no resampling or channel conversion is selected.

Amplitude and intensity scaling:

A peak amplitude or an intensity scaling can be requested with this flag. The actual scaling parameter is given in the next field. If the signal is clipped during the process, the recording is re-scaled to a maximal amplitude of '0.99' and the user is informed about this event. The output of this procedure will overwrite an input file, as long as no resampling or channel conversion is selected.

Amplitude and intensity scaling parameter:

For amplitude peak scaling, a value between '1' (= maximal peak amplitude for a 16-bit recording) and '0' (zero samples, i.e. absolute silence) can be given.

For intensity scaling, the value represents the average RMS-amplitude of the generated recording.

Feedback switch:

There is a variable feedback after the form window in the script. If this variable is set to 1, the script will report which file is being handled. This output can slow down the processing considerably.

Current version and date:

3.3, 12-may-2020

Known problems:

None

Planned extension:

Handling of multi-channel recordings (extracting all channels, converting mono to stereo)

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