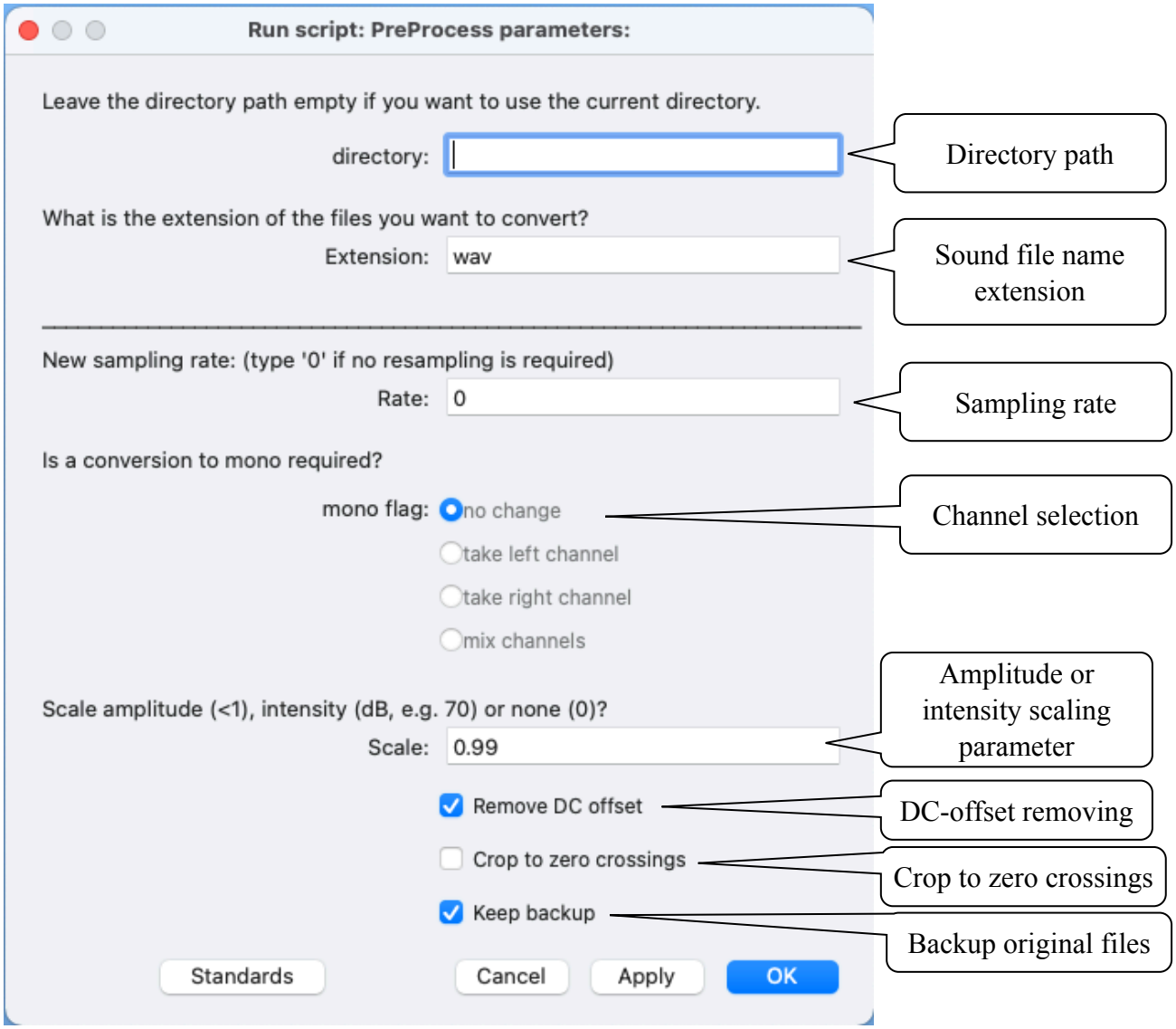
PreProcess_4_0_0.praat

Task:
Script to convert the sampling rate, select a recording channel, remove DC-offset, adjust the amplitude/intensity and crop signals to zero-crossings of all sound files in a directory. Original files are saved as .wav file in a Backup directory and new files will always be .wav files and have the otherwise same names as the old files.

Parameter:



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 and backup 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).

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. For mono files this field has no effect.

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.

Amplitude or intensity scaling:
A peak amplitude or an intensity scaling can be requested with this flag. The actual scaling parameter is given in the next filed. 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 or intensity scaling parameter:
0: No scaling of the sound files
≤ 1.0: Relative scaling ('1.0' = maximal peak amplitude for a 16-it recording)
> 1.0: Intended RMS-amplitude of the generated recordingin dB (usually a value of 70 gives a high amplitude without clipping. 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.

Crop to zero crossings:
The first and last zero-crossing is used to define the beginning and end of the signal. In case the signal begins/ends already at a zero-crossing, the next adjacent crossing will be used.

Backup original files:
The original files are backed up as .wav files in a sub-diretory with the name "Backup_<date>_<time>", where <date> is in the form "yyyymmdd" and time in "hhmmss". That is, if PreProcess is called several times on the same files, the different backups reflect the individual changes (and the oldest backup has the original files in .wav format).

Current version and date:
3.4.0, 13-jan-2020

Known problems:
None

Planned extension:
Back up of original files in original format.
Handling of multi-channel recordings (extracting all channels, converting mono to stereo).
Feedback if script takes longer than 1 second.

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