Breath Sound Analysis MATLAB Package

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BreathFilt.m :

Imports the .wav file for a breath based on tag cues from audit, and filters audio signal. Inputs include breath number (corresponding with cue), tag audit cues, directory, and tag (e.g., 'tt13\_269b'). Outputs original signal and fourth-order low pass Hamming-window FIR filtered signal.

BreathParams.m :

Calculates parameters from the filtered signal for a breath (from BreathFilt.m). Inputs include downsampled and filtered respiratory sound signal and cue number. Outputs structure with parameters.

BreathLoop.m :

This script loads a specified tag’s audit, and calls on the above functions to import marked breaths, and calculate specific parameters from the imported acoustic signals.