

To run program

Open "src/run.m" in Matlab

Modify "config" variable in the beginning to change input parameters

Run the script to get output waveform

Configuration

The configuration is contained in "config" variable. Modify this following parameters to get desire effect:

- **config.pitchScale** pitch scale ratio
- **config.timeScale** time scale ratio
- **config.resamplingScale** resampling ratio to do formant shifting
- **config.reconstruct** if true do low-band spectrum reconstruction

For example, if we want to change a female voice to a male voice with a slower speed we can set config as follows: config.pitchScale = 0.7 % pitch shifting down config.timeScale = 0.8 % time scale down config.resamplingScale = 0.75 % formant shifting down config.reconstruct = 0 % do not do low-band spectrum reconstruction

Experiments

"Experiments" folder contain all experiments used to evaluate the quality of the program.

There is a video show how to do experiments [at this link](#).

Other Source Code

"src/private" folder contains three functions of Matlab Signal Processing Toolbox

- Hanning windows
- Cross Correlation (to calculate AutoCorrelation function)
- Median Filter (to do pitch estimation pre-processing)