

## HQSYN16 - Task #4249

Task # 3677 (New): RA3b - Phonetically justified parameters (spectral tilt, ...)

Task # 3970 (Closed): Formant-based join cost computation

### Spectral tilt for join cost

21.09.2017 08:25 - Matoušek Jindřich

<b>Status:</b>	Closed	<b>Start date:</b>	21.09.2017
<b>Priority:</b>	Normal	<b>Due date:</b>	31.12.2017
<b>Assignee:</b>	Tihelka Dan	<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	RA3: Phonetically justified parameters for speech synthesis		
<b>Description</b>			
Consider spectral tilt in join cost computation.			
Compare MFCC- and formant-based join cost with the spectral tilt included:			
<ul style="list-style-type: none"><li>• MFCC + spectral tilt</li><li>• formants + spectral tilt</li><li>• MFCC + formants + spectral tilt</li></ul>			

### History

#### #1 - 27.11.2017 13:56 - Tihelka Dan

I have just started experiment with:

- spectral tilt (static) + MFCC (classic)
- spectral tilt (static) + formants (SLOPE)
- spectral tilt (static) + formants (ABS)
- spectral tilt (static) + formants (ABS) + MFCC (classic)

where:

- **MFCC (Eucl)** is the "classic" MFCC distance computation using Euclidean distance between MFCC vectors (see *MFCC-cost* equation at [wiki](#))
- **spectral tilt (static)** is the use of Euclidean distance of spectral tilt coefficients (computed at [#4211](#)), handled exactly as the MFCC coefficients
- **formants (ABS)** is the *mean absolute difference of the formant contour (ABS)*, as described in [wiki](#)
- **formants (SLOPE)** is the *absolute difference of formants and their slopes (SLOPE)*, as described in [wiki](#)

The data to synthesize are shorter phrases (5 words or 40 chars max), from which the difference logs will be collected and (as usual) the most differing phrases will be compared by listening tests.

If you have another suggestions, especially regarding the tests data, just write a note here ...

#### #2 - 20.01.2020 08:50 - Tihelka Dan

- Status changed from New to Resolved

#### #4 - 20.01.2020 08:50 - Tihelka Dan

- Status changed from Resolved to Closed