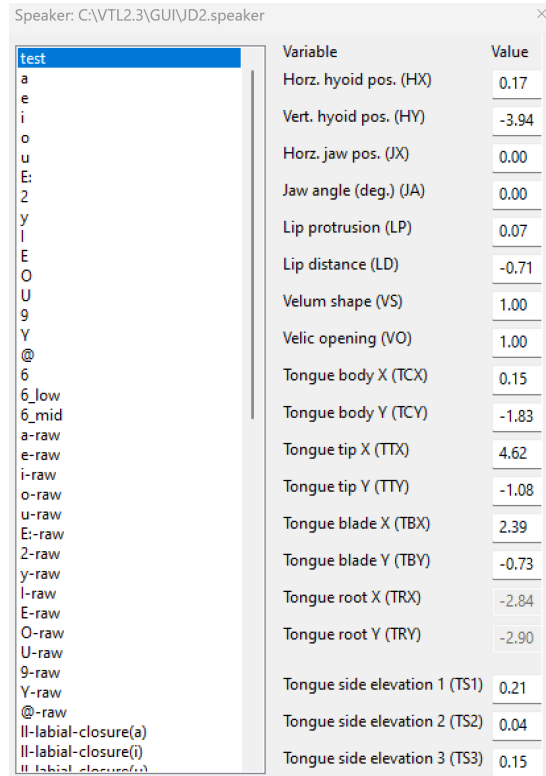


Vocal Tract Workshop

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Question1: I made a new vocal and named it "test". I designed the vocal tract model with adjustable control points to allow precise manipulation of the tongue and other articulators. By pulling these points together, for example, we can flatten the tongue, which would produce a flatter sound.



test	Variable	Value
a	Horz. hyoid pos. (HX)	0.17
e	Vert. hyoid pos. (HY)	-3.94
i	Horz. jaw pos. (JX)	0.00
o	Jaw angle (deg.) (JA)	0.00
u	Lip protrusion (LP)	0.07
E:	Lip distance (LD)	-0.71
2	Velum shape (VS)	1.00
y	Velic opening (VO)	1.00
l	Tongue body X (TCX)	0.15
E	Tongue body Y (TCY)	-1.83
O	Tongue tip X (TTX)	4.62
U	Tongue tip Y (TTY)	-1.08
9	Tongue blade X (TBX)	2.39
Y	Tongue blade Y (TBY)	-0.73
@	Tongue root X (TRX)	-2.84
6	Tongue root Y (TRY)	-2.90
6_low	Tongue side elevation 1 (TS1)	0.21
6_mid	Tongue side elevation 2 (TS2)	0.04
a-row	Tongue side elevation 3 (TS3)	0.15
e-row		
i-row		
o-row		
u-row		
E-row		
2-row		
y-row		
l-row		
E-row		
O-row		
U-row		
9-row		
Y-row		
@-row		
ll-labial-closure(a)		
ll-labial-closure(i)		
ll-labial-closure(u)		

Figure 1: The variable of the speaker



Figure 2: The vocal tract shape

Question2: This section contains the main content of your document. You can add more sections or subsections as needed.

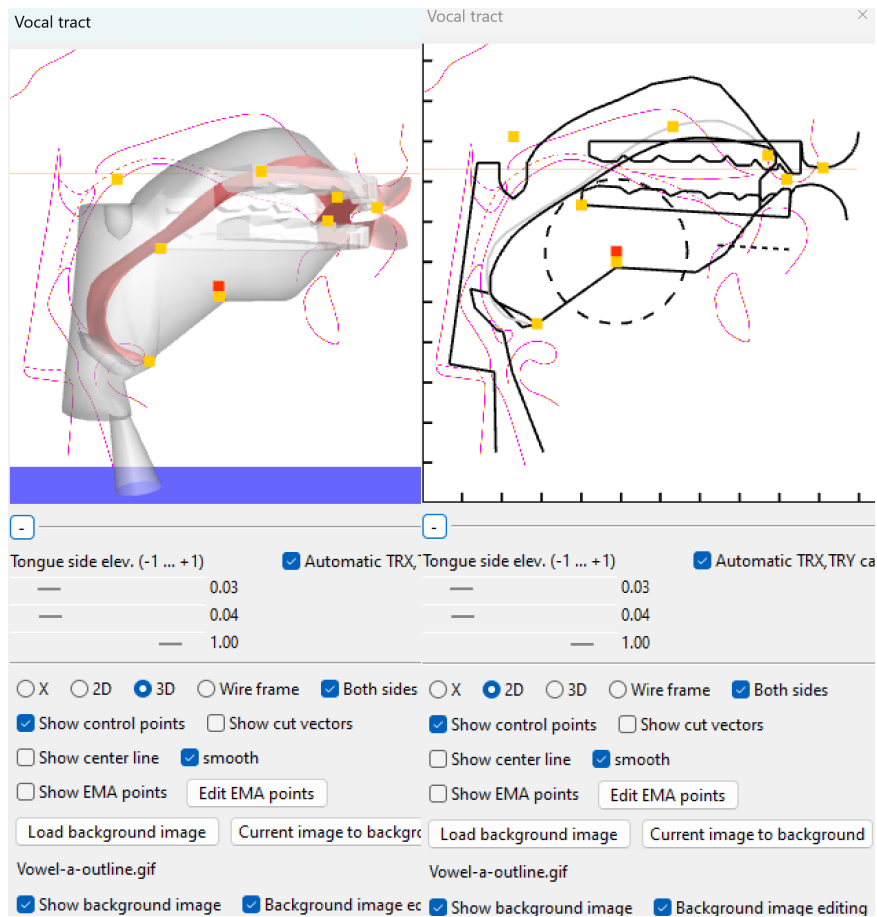


Figure 3: vowel-a-3D

Figure 4: vowel-a-2D

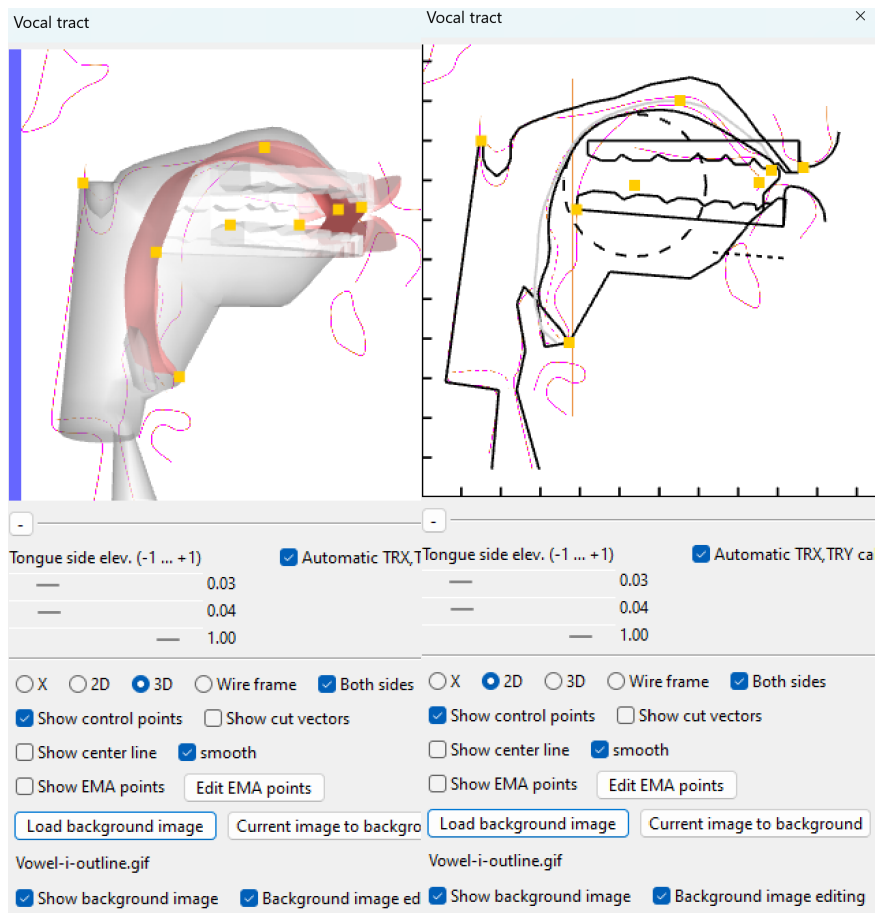


Figure 5: vowel-i-3D

Figure 6: vowel-i-2D

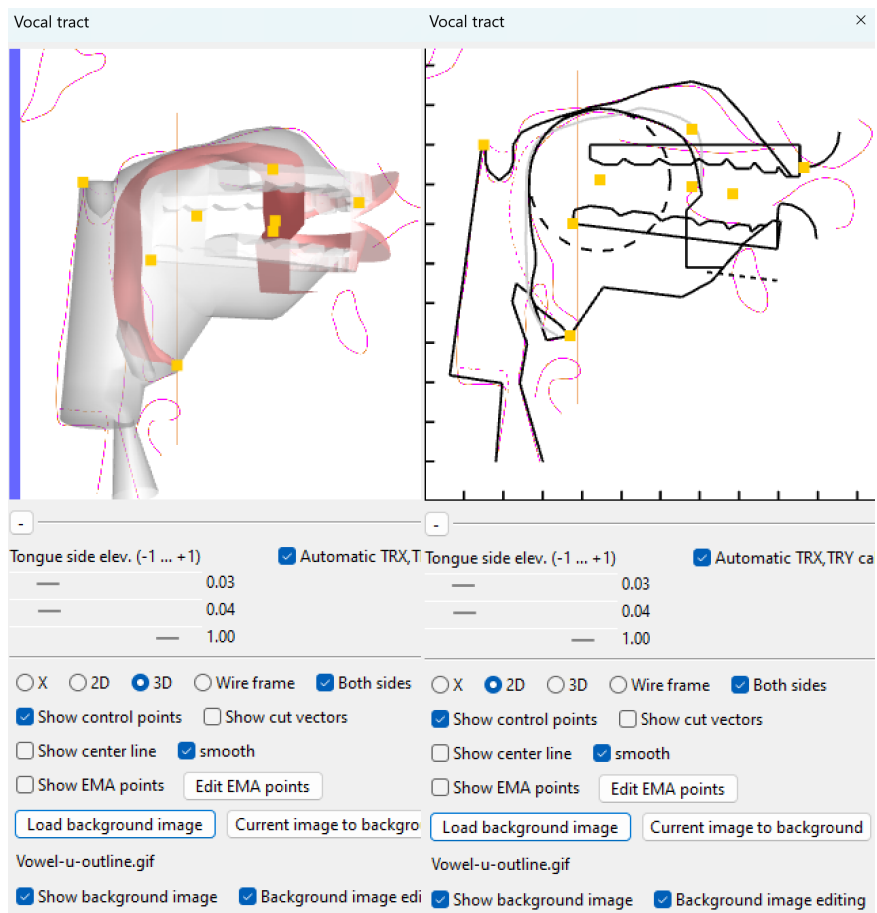


Figure 7: vowel-u-3D

Figure 8: vowel-u-2D

Question3: I choose example03, change all “modal” glottal shape gestures to “breathy” glottis shapes, change first two tongue tip from alveolar to postalveolar, prolong last tongue tip which alveolar-closure from 235ms to 335ms, and change last vowel gesture from @ to E.

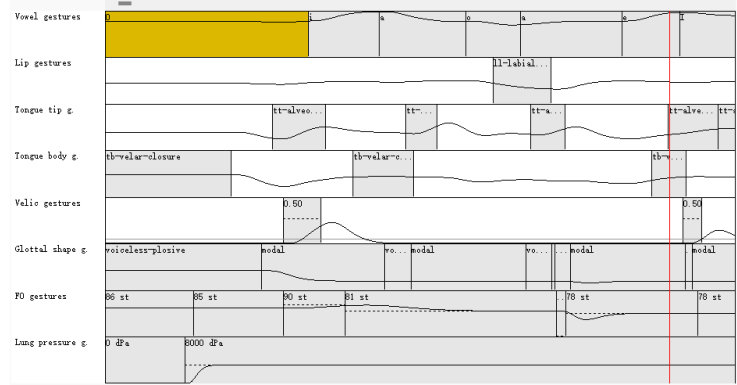


Figure 9: original example

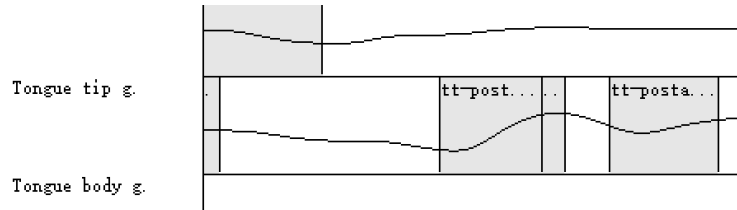


Figure 10: Tongue tip change

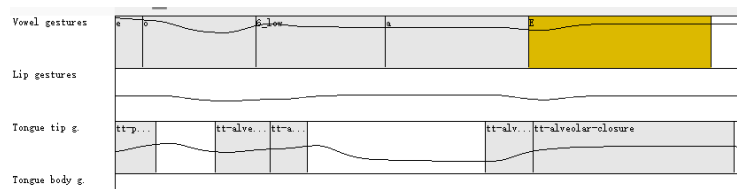


Figure 11: last tongue tip change

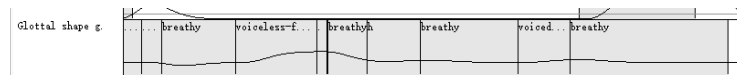


Figure 12: glottal shape change

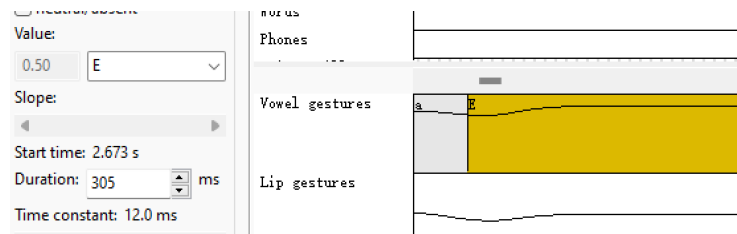


Figure 13: vowel value change

Question4:I made "I will owe you eight." This includes five vowel words: "I," "will," "owe," "you," and "eight."