F FLAWLESS

Advanced Lip Sync Controls

The **Advanced controls** are granular controls for specific parts of the face. These should only be used in cases where using the **Viseme controls** has not achieved the desired result. This can involve:

- making very specific facial adjustments
- correcting edge cases
- layering subtle refinements on top of a viseme

When making corrections using the Advanced Controls, follow the same process as with the Viseme controls:

1. Check and correct the **top priority** mouth shapes across the **whole shot** to make sure they are formed correctly.

2. Check any remaining problem areas for the secondary mouth shapes to identify and refine outstanding issues.

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TOP PRIORITY Mouth Shapes	SECONDARY Mouth Shapes
B / M / P	S / Z / T / D
F / V	Th
W / Oo	Ch / Sh / Dge / J
	R
	N / L
	Ah
	Ee
	Oh

B/M/P

(e.g. "tu**B**e", "**M**at" , "ca**P**")

TIMING AND SHAPES

- **B & P**:
  - The lips should be **pressed together** on the frame **before** the sound (and possibly the frame before that too, depending on the strength of the B or P).
  - The lips **must release** from each other when the B & P sounds start.

- **M**:
  - The **M** sound occurs **only while the lips are closed**.
  - The lips **release** when the **next** sound occurs.

CONTROLS TO USE

If the lips are not closed when they should be for an M, B or P, then close them with the following overrides:

- **Jaw – Open** (*negative* value)
  - Close the jaw to bring the bottom lip up to meet the top lip. Use in tandem with 'Mouth Shrug - Upper' so that the lips come together in unison.
- **Mouth Shrug – Upper** (*negative* value)
  - Lower the top lip to bring it down to meet the bottom lip. Use in tandem with 'Jaw - Open' so that the lips are coming together in unison.
- **Optional: Mouth – Funnel** (*negative* value)
  - Pull the lips inwards and press slightly together with a gentle negative value.

B/M/P (continued)
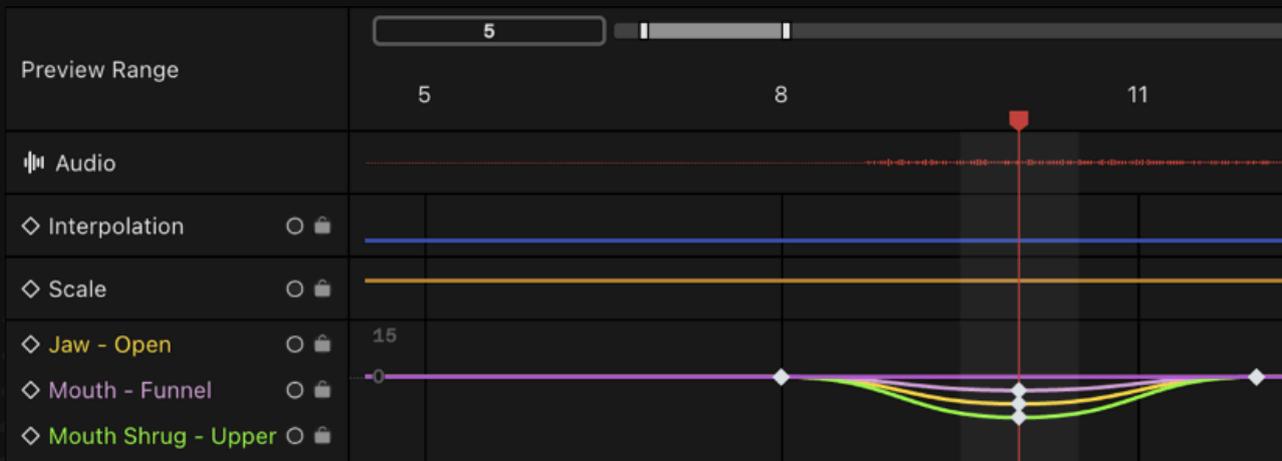
If the lips are **closed** in your vub when they are meant to be **releasing**, then use the **reverse** of the actions above i.e. to **open** the lips use:

- **Jaw - Open** (*positive* value)
- **Mouth Shrug - Upper** (*positive* value)
- **Optional: Mouth - Funnel** (*positive* value)

F / V

(e.g. "**F**ate", "tur**F**", "**V**elcro")

TIMING AND SHAPES

- F & V sounds only occur **while** the **bottom lip** is in contact with the **top teeth**.
- **No lower teeth** should be visible.

CONTROLS TO USE

If the bottom lip is **not** making contact with the top teeth on the desired frames, then achieve this with the following overrides:

- **Jaw – Open** (*negative* value)
  - Close the jaw with a negative value so that the bottom lip covers at least some of the top teeth.
- **Mouth Shrug – Upper** (*positive* value)
  - Once the jaw has been adjusted such that the bottom lip is in contact with the top teeth, ensure that the lips are now not sealed by raising the top lip if necessary.
- **Optional: Mouth Roll – Lower** (*positive* value)
  - This brings the lower lip inward and can help give the impression that the lower lip is pressing against the bottom teeth. Fs in particular can be formed using different parts of the bottom lip making contact with the teeth, so use your judgement of how the actor would form an F.
- **Optional: Mouth – Funnel** (*positive* value)
  - Mouths can purse together when saying F or V. This can help create this slightly rounded shape.
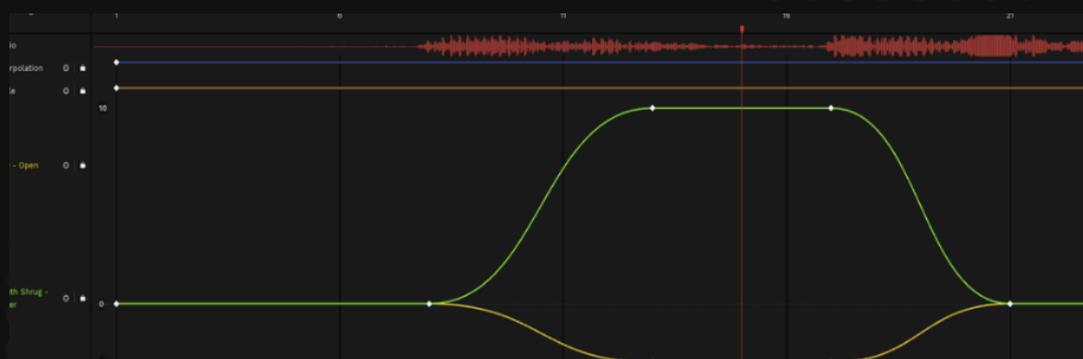
W/Oo

(e.g. "ho**W**ever", "**W**hen", "c**OO**l", "m**O**ve")

TIMING AND SHAPES

- W and Oo sounds occur with a rounding of the lips and a small lip opening.
- The Oo sound is heard **while** the mouth shape is held.
- The W mouth shape is strongest on the **frame before** the peak of the sound, which is generated as the lips releases into the next sound.

CONTROLS TO USE

- If the W/Oo shape is not sufficiently formed, then achieve this with the following overrides:
  - **Jaw – Open** (*positive* or *negative* value)
    - The jaw typically opens a little in the forming of a W/Oo, so ensure that this is happening – but only a little.
  - **Mouth – Pucker** (*positive* value)
    - To create a more rounded shape
  - **Mouth Shrug – Upper** (*negative* value)
    - Slightly lower the top lip to bring it closer to the bottom lip and reduce/eliminate the visibility of the top teeth.
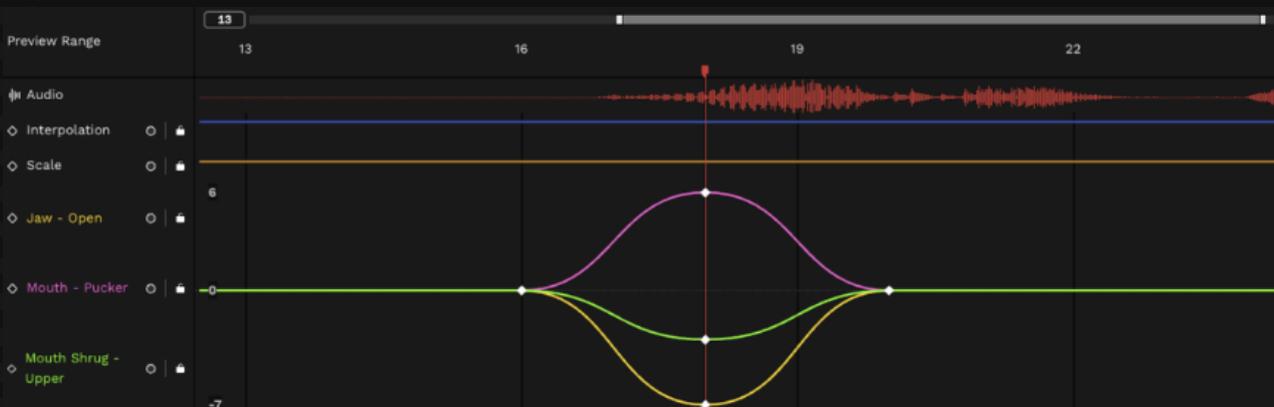
S / Z / T / D

(e.g. "**S**au**s**ages", "ha**Z**y", "po**T**a**T**oes", "fa**D**es"

TIMING AND SHAPES

- Using Audio Scrubbing, find the frame or frames where you hear the 'hiss' of the S or Z sounds, or the **frame before** you hear the 'pop' of the T or D.
- Typically, the mouth shape for S/Z is made **while** the sound is heard.
- Typically the mouth shape for T/D is made the **frame before** the sound is heard.
- The lips must not be sealed.
- There should ideally be some visibility of the teeth with **no visible gap** between them.
- The jaw for T/D sounds can sometimes be **fractionally** more open than for S/Z sounds.

CONTROLS TO USE

If the mouth is too open for a S/Z/T/D to be formed, use the following controls:

- **Jaw - Open** (*negative* value)
  - Adjust the jaw so there is little to no gap between the teeth.
- **Mouth Shrug – Upper** (*positive* value)
  - After setting the jaw correctly, ensure the lips do not seal by raising the top lip, if needed.
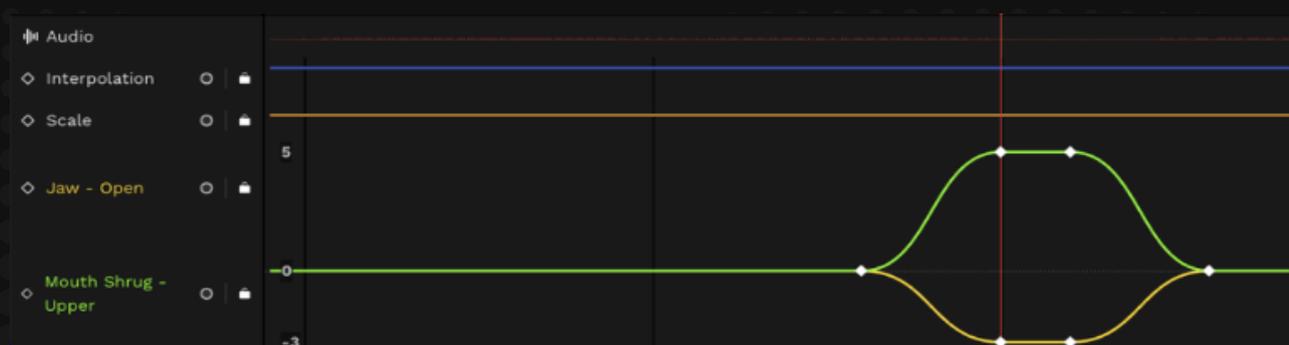
Th

(e.g. "**TH**ick", "pa**TH**")

TIMING AND SHAPES

- The Th sound only occurs while forming the Th mouth shape.

- The Th shape involves the tongue touching the underside of the top teeth, meaning that it can peek out between the teeth. DeepEditor does not currently control the tongue, so to make a **Th** shape work, ensure the jaw is open just enough to allow for a hypothetical tongue peeking out.

CONTROLS TO USE

If the Th shape is not sufficiently formed, then achieve this with the following overrides:

- **Jaw - Open** (*positive* or *negative* value)
  - Adjust the jaw so there is a slight gap between the teeth (note that you don't actually have to **see** the teeth, just to set the jaw to the right opening.
- **Mouth Shrug – Upper** (*positive* value)
  - After adjusting the jaw, raise the top lip if necessary to ensure the lips are not sealed.
- **Optional: Mouth - Funnel** (*negative* value)
  - Th shapes can involve a widening of the mouth corners. If desired, add a gentle negative value to 'Mouth - Funnel' to achieve this.
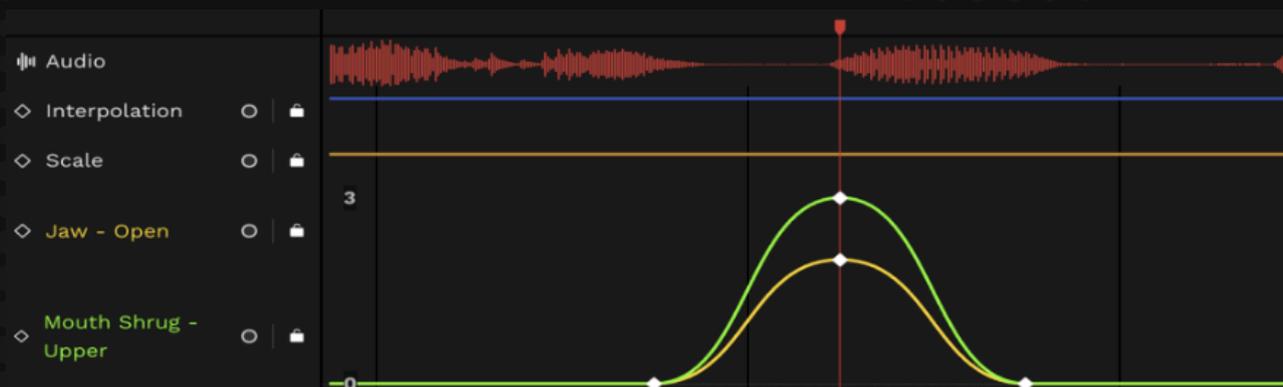
Ch/Sh/Dge/J

(e.g. "**CH**annel", "cla**SH**", "fu**DGE**", "a**J**ar")

TIMING AND SHAPES

- The lips should not be sealed.

- There should be little to no gap between the teeth.

- The lips often funnel outward.

- These sounds are typically heard as the mouth is starting to release from the position, except for elongated **Sh** sounds.

CONTROLS TO USE

If the Ch/Sh/Dge/J shape is not sufficiently formed, then achieve this with the following overrides:
- **Jaw – Open** (*negative* value)
  - Close the jaw until you have nearly-touching teeth.
- **Mouth – Funnel** (*positive* value)
  - Add some curling outwards of the lips if needed.
- **Optional: Mouth Shrug – Upper** (*positive* or *negative* value)
  - These mouth shapes sometimes show the top row of teeth, so lift the top lip if needed. Conversely, if 'Mouth - Funnel' has **overexposed** the top teeth, you can lower the top lip if needed.
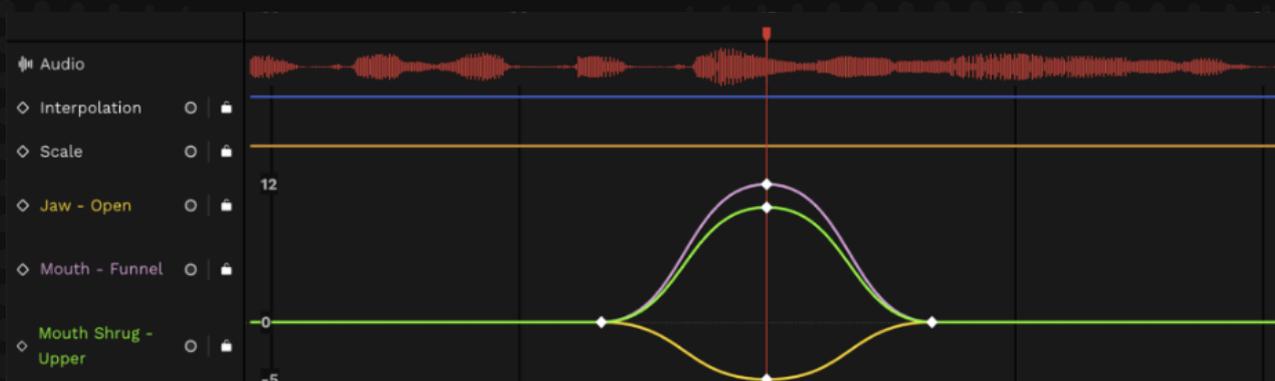
R

(e.g. "c**R**ash", "e**R**ode")

TIMING AND SHAPES

- The lips should curl slightly outwards.

- There should be a slight rounding of the lips.

- The opening between the lips should be small.

- The peak of a R mouth shape should be the **frame before** we hear the peak of the sound – which occurs as the shape is released.

CONTROLS TO USE

- **Mouth – Funnel** (*positive* value)
  - To round the mouth and curl the lips outwards.
- **Jaw – Open** (*positive* or *negative* value)
  - If the jaw looks too open, slightly close it; however, it should never be fully closed.
- **Mouth Shrug – Upper** (*positive* value)
  - If the adjustment to the jaw has resulted in sealed lips, slightly raise the top lip to part them.

N/L
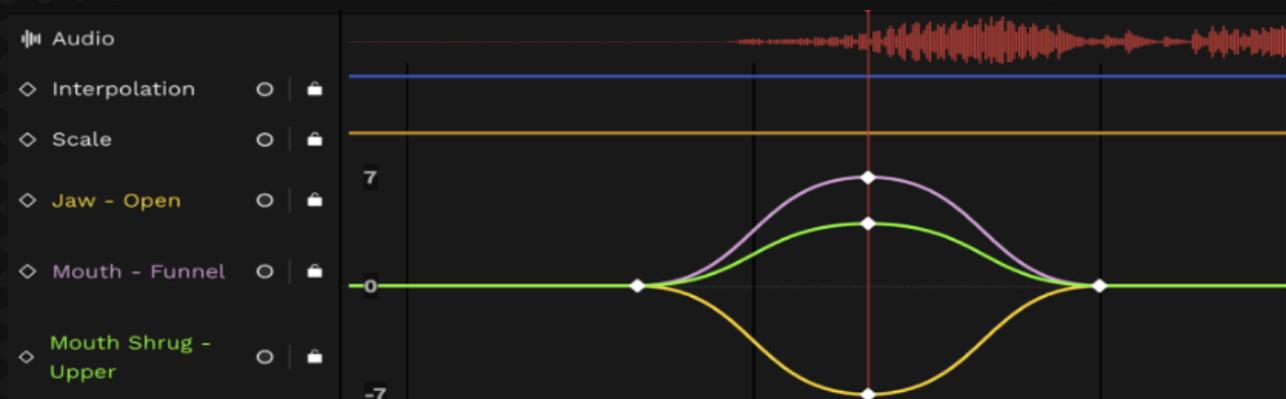
(e.g. "pa**N**ic", "**N**ew", "mi**L**k", "ba**LL**ast")

TIMING AND SHAPES

- The lips should not be sealed.

- There should be a small visible gap between the teeth. N/L is formed by the tongue touching the roof of the mouth, so we focus the jaw opening to make this physically possible.

- The N and L sounds are heard when the mouth releases from this position.

CONTROLS TO USE

If the N/L shape is not sufficiently formed, then achieve this with the following overrides:

- **Jaw - Open** (*negative* value)
  - If there is no visible gap between the teeth, open the jaw a little.
- **Optional: Mouth Shrug – Upper** (*positive* value)
 - Once the jaw is adjusted then, if the lips are still sealed, raise the top lip a little to help part them.
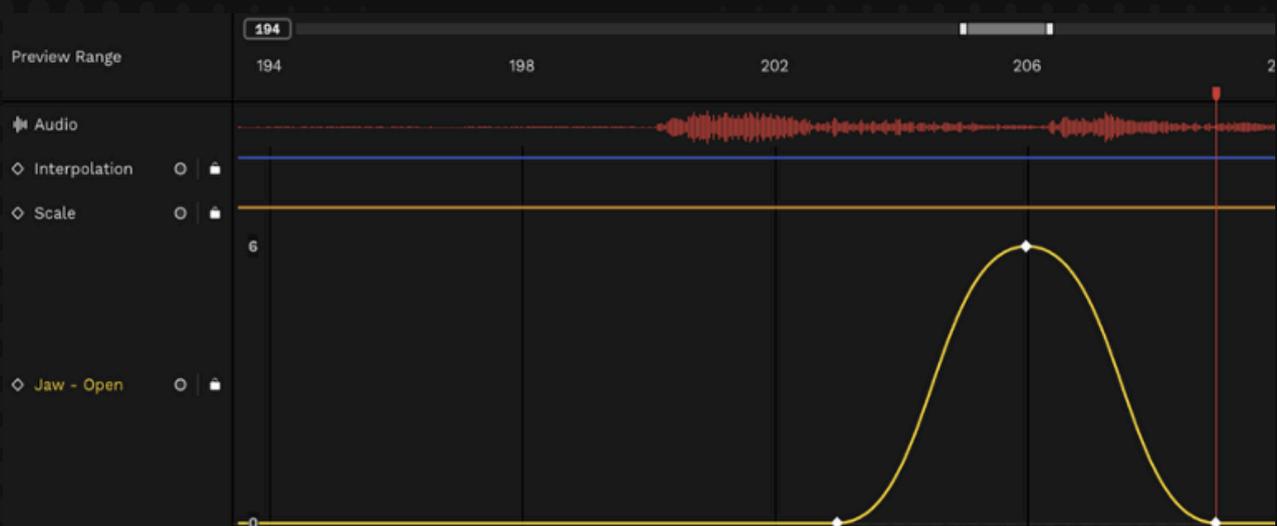
Ah

(e.g. "m**A**t", "fl**A**p")

TIMING AND SHAPES

- The peak of the Ah sound should match the peak of the jaw opening.

- The lips and jaw must not be closed.

- The size of the jaw opening should match the performance size.

CONTROLS TO USE

- **Jaw - Open** (*positive* value)
  - Open the jaw enough to match the audio performance size.
- **Optional: Mouth - Pucker** (*negative* value)
  - If there is any rounding of the mouth, reduce or eliminate this.
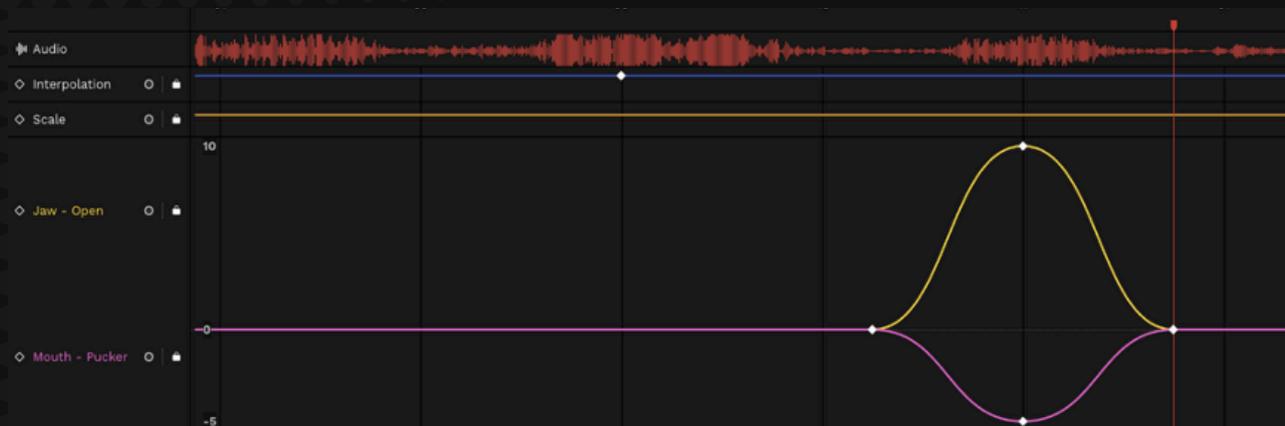
Ee

(e.g. "h**EE**d", "happil**Y**")

TIMING AND SHAPES

- There should be a light jaw opening, leaving a slight separation between the teeth.

- There should be an increased mouth width; it can look like a smile.

- The peak of the mouth shape should match the peak of the sound.

CONTROLS TO USE

- **Jaw – Open** (*positive* value)
  - Ensure the jaw has a light opening.
- **Mouth Smile - Left** & **Mouth Smile – Right** (*positive* value)
  - Add 'Mouth Smile - Left' and 'Mouth Smile - Right', typically in equal proportions, to emphasise an Ee shape.
- **Optional: Mouth – Funnel** (*negative* value)
  - Using a small negative value of 'Mouth - Funnel' can create the look of the lips pressing against the teeth that can occur when with an Ee sound.