



LipService 3.0

Joe Alter's latest 3ds Max plug-in mixes ZBrush-style sculpting tools with phoneme animation controls - but the whole is more than the sum of its parts **BY CHRIS OLLIS**

DETAILS

PRICE
£68* / \$99 / €77*
*Currency conversion

PLATFORM
PC

MAIN FEATURES

- Multi-level subdivision sculpting tools
- Texture painting with custom brushes and stencils
- Normal/displacement map creation and extraction
- Fast, intuitive lip-sync tools
- Puppeteering controls for real-time animation

RECOMMENDED SYSTEM

- Any running 3ds Max 8.0+ (Maya version due Q2 2009)

DEVELOPER
Joseph Alter Inc

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LipService, the 'other' plug-in from *Shave and a Haircut* creator Joe Alter, has just reached its third release. Also known as *LipService w/LBrush*, or just plain *LBrush*, this 3ds Max add-on has grown greatly in scope, power and flexibility since its debut. But what exactly does it do?

As its names suggest, the plug-in combines both brush-based sculpting and lip-synching tools, together forming a complete facial animation system. The principle of phoneme animation is to sculpt the key mouth shapes necessary for lip-sync, then blend between them in time to an audio track. *LipService* enables artists to take a single facial model, sculpt it into a series of expressions, then assemble those expressions into an animation.

As with dedicated sculpting packages such as *ZBrush* or *Mudbox*, *LipService* uses a multi-level subdivision system, in which you increase and decrease the number of polygons in your mesh as necessary for a particular task, painting or sculpting as you go. Each level works with the others, enabling you to animate on lower, less complex levels, keeping the high-resolution mesh hidden until the end.

For those who find *ZBrush's* workflow alien, *LipService* will be a welcome relief: everything works with 3ds Max's native shortcuts, as you would expect from a standard modifier. The software is pretty responsive, too, pushing meshes of around



● *LipService* combines ZBrush-style sculpting tools with phoneme controls (above). Lip-sync animation is fast and easy: simply hit the Next Frame button and pick the face shape you want

half a million polys with ease - although step up from that and pauses while the software calculates creep in. Overall, performance is probably on a par with the first release of *Mudbox*.

The actual sculpting tools compare well to *ZBrush* and *Mudbox*, too. First, you have the Sculpt Tools themselves, for pushing and twisting the geometry into shape. The Brush Tools are for more refined work, adding fine lines and detail to your mesh. Finally, there is a Selection Tool for creating selection sets, which makes working on complex facial geometry (for example, moving lips around without affecting teeth) a breeze.

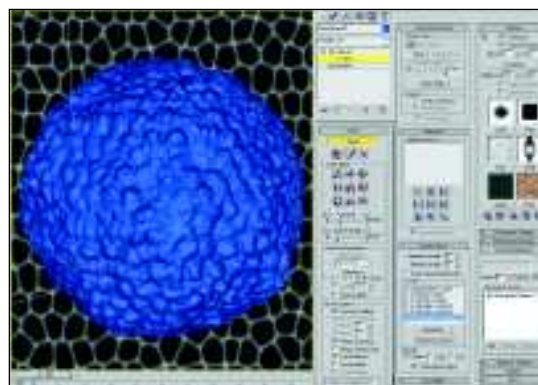
The Brush Tools can also be used to paint vertex colours onto your mesh, which - if the mesh is subdivided enough - provides a means to create diffuse maps. Here, the Smudge and Blend brushes become surprisingly effective art tools, instead of pure geometry-pushing ones.

Textures can also be loaded directly into the vertex channel, where they can be used for their colour value, or as stencils. Patterns can be used as brushes, and can even be set to follow stroke direction, for painting details like chain links. Finally, built-in Bake to Texture tools offer Normal, Displacement and Vertex Color Map output as well as an Export Mesh option.

FAST FACIAL ANIMATION

Once created, each new face shape is saved to a thumbnail library with a single mouse click; the original shape can be retrieved just as easily. You don't have to do your sculpting in *LipService*, though: if you have a set of pre-built shapes, these can be imported into slots in the library just as quickly, quite possibly breathing new life into an old model.

Once you have all of your face shapes set up, established lip-sync packages such as Di-O-Matic's *Voice-O-Matic* automate



● The plug-in's texturing tools may be used to refine a mesh. Left: sculpting a bumpy surface with projective textures

RELATED PRODUCTS

- *Voice-O-Matic 2.0*
Reviewed: issue 81
- *ZBrush 3.0*
Reviewed: issue 92
- *Mudbox 2009*
Reviewed: issue 112

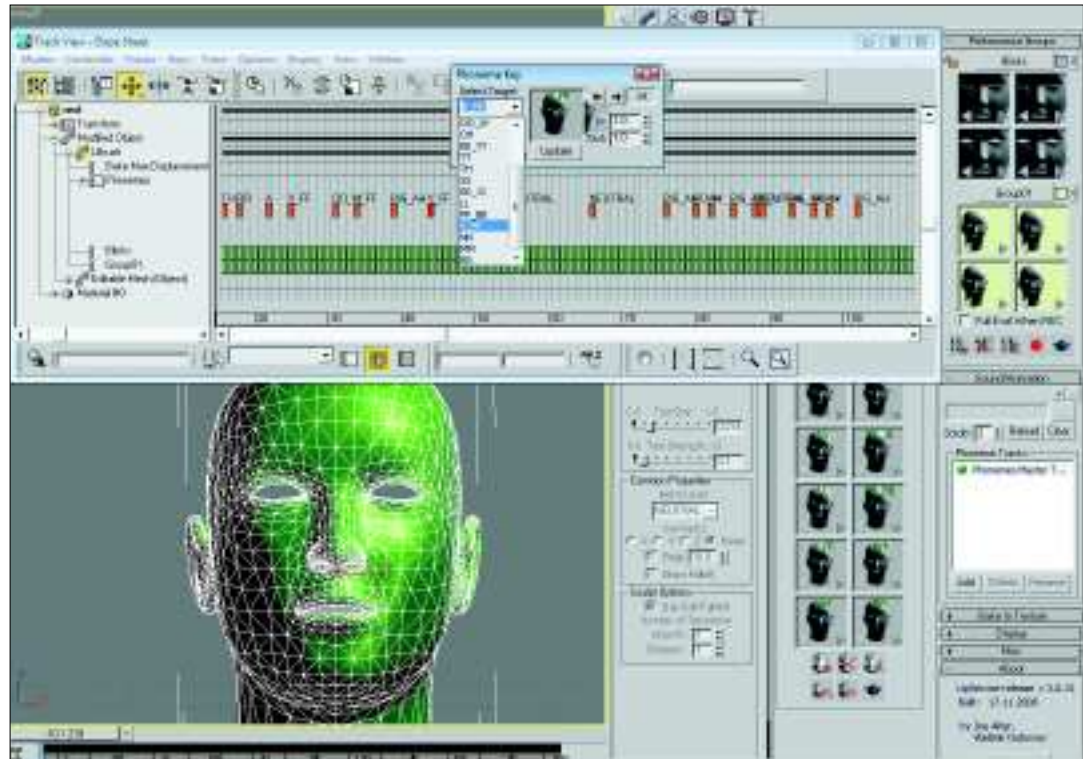


the actual animation process. *LipService*, in contrast, chooses to let you do all the hard work. However, this isn't a bad thing, as the workflow is so quick and intuitive: with your WAV file loaded, you tap Next Frame, select a clearly labelled thumbnail, and repeat as necessary. We were able to create a 200-frame lip-sync test in a minute and the results were startlingly good.

This is possibly due to the fact that *LipService* uses a constant motion system that blends one state to another without an actual ease in or out, so the 'morph' never really stops on an individual facial shape. The end result is a fleshier, more human-looking motion, closer to full facial motion capture than the morph tools we have seen previously.

LipService also offers four-slot 'Performance Groups'. These are morph targets driven by how close your mouse is to the corners of your viewport, forming a virtual puppeteering system: click the Record button and away you go, driving your character's morphs in time to the audio.

These Performance Groups do not overwrite the phoneme morphs: they simply combine with the underlying data.



● *LipService's* Dope Sheet provides an intuitive visual way of handling all the keyframes the software generates during lip-syncing and real-time puppeteering. The rest of the interface is more complex: although navigable, the number of control panels may have you considering a new monitor!

LIPSERVICE'S FLUIDITY MAKES IT A MORE POWERFUL GENERAL ANIMATION TOOL THAN PERHAPS EVEN ITS CREATORS REALISE

In fact, you can add as many Performance Groups as you like – one for moods, another for blinks and so on. The results are brilliant, and since every frame of the mouse's motion is recorded, seem closer to natural 'noisy' human motion than traditional animation.

Thankfully, given the number of keyframes *LipService* generates, thought has gone into the Dope Sheet, with the layers of Phoneme and Performance Group



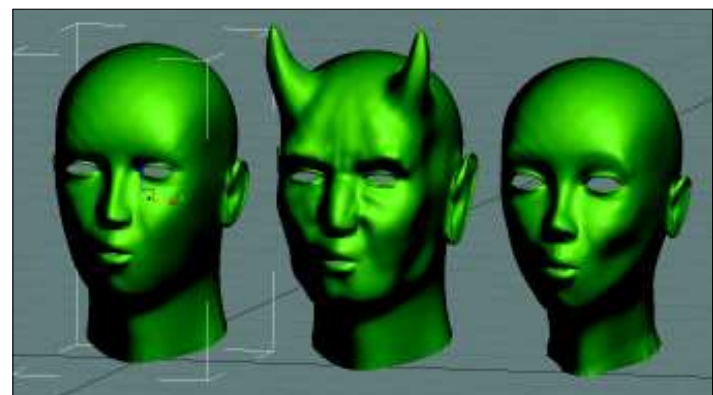
● *LipService* can animate more than faces. Above: an animation of a horse, created by sculpting morphs for tail and head movements

motion clearly colour-coded and separated. Each phoneme keyframe is labelled (AH, MM, RR, and so on) and thumbnailed, and the audio clip clearly visualised underneath.

NOT JUST FOR HEADS

Just as the sculpting tools can be used on any kind of model, the animation tools are not confined to facial work. The functionality and fluidity of the 'morph' system makes it a more powerful general-purpose animation toolset than possibly even its creators realise: something we hope they play with in future releases.

The only real problem we found was in converting sculpts to an Editable Poly. While *LipService* outputs to an Editable Mesh well, the standard *Max* process of converting that model to an Editable Poly caused the loss of a great number of subdivisions and degraded the model.



● The plug-in effectively converts one base mesh into many. Here, phoneme and performance group motions from the base head on the left are driving two completely different sculpts

However, this issue can be circumvented by exporting the mesh as an OBJ, re-importing, and converting to Editable Poly; and the developers tell us that they are working on a simple Export to Editable Poly option.

LipService has so much potential, it's hard to say to whom it will be of most use: modellers, animators or generalists. It's absolutely feature packed, and has clearly been created by an artist, for artists. With a *Maya* version due for release shortly after this issue goes on sale, *LipService* looks destined for big things. ●

VERDICT

PROS

- Powerful subdivision modelling
- Fast and fluid morphing tools
- Incredibly cheap

CONS

- Cloning textures could be easier

RANGE OF FEATURES	9
VALUE FOR MONEY	10
OVERALL	9