

PITCH CORRECTION
Make onboard tweaks before the vocal hits the creative processors

WAVE-METER
A handy waterfall-style frequency plot of the output signal

EXTERNAL ROUTING
Activate your sidechain carrier source or external MIDI input

POLYVOX
This is the simplest effect, providing high-quality formant shifting

VOCODER
This classic effect includes a choice of three very different vocoder styles

VOICES
Enhance your auto mode sounds with three further voices

MIXER
Blend the four main processing engines and your pitch corrected dry signal

EFFECTS
Five processes for further finessing

GLOBAL
Set your overall output level and wet/dry mix blend

COMPUVOX
Speech-chip sounds delivering a text-to-speech effect

TALKBOX
Dark, Classic and Bright modes to stick down your pipe

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iZotope VocalSynth

£139



Pulling together multiple vocal manipulation effects into a single plugin is ambitious – can the original thinkers from Massachusetts get it right?

> Vocals are the heart and soul of any track, but they can be the hardest thing to get right in a production. Having just spent our last issue getting to grips with vocal production, we've had plenty of time to work with this new release.

VocalSynth (VST/AU/RTAS/AAX) is a plugin processor – an effect, despite the name – inspired by a number of classic vocal-specific effects. It features four separate engines (Compuvox, Vocoder, Talkbox and Polyvox) and although you can use the engines on their own, all are available simultaneously, blended along with the Dry signal via the onboard mixer. Said Dry signal first passes through the optional real-time Pitch Correction, and the mixer output (four engines plus pitch-corrected Dry signal) then pass through a chain of five further vocal friendly effects (Distort, Filter, Transform, Shred and Delay). It includes a handy waterfall-style display which can be switched to an X/Y Pad, tacking one parameter to each axis.

VocalSynth can be used as a straight-up audio insert in what iZotope call Auto mode, and to that end includes not only onboard wavetable synthesis (providing 10 bespoke carrier sounds each for Vocoder, Compuvox and Talkbox), but also its own auto note generation, with MIDI note input only being optional. For classic vocoding, you also get sidechain input of carrier signals.

Engine room

Polyvox is the simplest engine and delivers additional pitchshifted voice generation. Although this works via MIDI, for simple fixed intervals it dovetails particularly well with VS's three extra Voices. Formants can then be manipulated using two controls – Formant and Character – and a third control, Humanize, introduces subtle pitch and timing differences. We found this last option great when fattening vocals with additional unison voices.

Compuvox is based on linear predictive

coding (LPC) and produces the sort of text to speech effects found in famous toys such as the Texas Instruments Speak & Spell. It has three modes (Spell, Read and Math) which react differently to incoming vowels, and also three tailoring controls (Bits, Bytes and Bats), which influence aliasing, vowel duration and vocal noise respectively. The effect requires a carrier signal, and the onboard wavetable sounds deliver some pretty edgy, noisy results, so care is needed.

A real, physical talkbox effect sends audio down a pipe and into your mouth. Resonances within the pipe and your vocal tract modulate that audio, which you then mic up. In practice, this can be quite tricky to master, and VocalSynth offers a more immediate alternative. Three modes (Dark, Classic and Bright) set the core high-frequency response, with Speaker and Drive emulating the acoustics and electronics of the hardware, and Formant shifting the

“With care it can conjure up some pretty cool results, and the simple interface makes it easy to use”

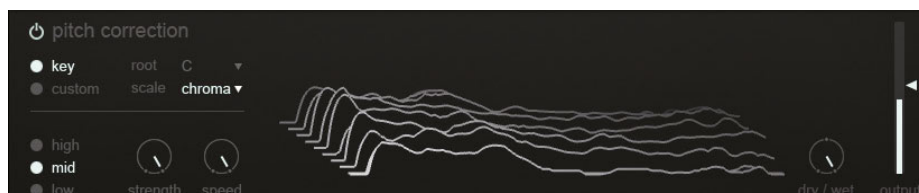
formants. Once again, the effect can be mapped onto one of ten internal wavetable carrier sounds. Although the methodology is different to a talkbox, it's possible to get similar sounds, and with some suitable mouth sounds and the Hollow Tube wavetable setting, we managed a passable Bon Jovi style effect.

Vocoder is a reasonably straightforward design. Its three modes (Smooth, Vintage and Hard) dictate high-frequency behaviour, and three controls (Shift, Contour and Scale) influence the pitch, EQ curve and response speed respectively. Carrier-wise, the onboard wavetable oscillators are definitely usable (The Russell is our favourite), but we think VocalSynth would benefit from a better, more flexible onboard synthesiser - we coaxed out far richer sounds using an external carrier synth.

Effects bus

The five post-vocalising effects provide considerable additional flavour and complexity, and are placed in series with individual wet/dry settings for each. Distort includes four flavours, and although adding extra harshness is not top of our list, the Warm setting is great for adding subtle saturation. The Filter includes traditional high-pass, low-pass and high-/low-pass combined filters, all with Resonance. We particularly like the fourth option, Scream, with its sweepable high resonance peak - great for emphasising a narrow frequency band. Delay, ideal for adding repeats and ambience, can run in free time or synced, and behaves as you would expect. Winding up the Width control introduces gradually wider ping-pong behaviour - handy for subtle widening or FX.

Our two favourite effects are Shred and Transform. Shred buffers the audio to create stutters, chops and repeats, and includes optional tempo sync. We found manipulating the Timing (which also includes optional tempo sync) and Intensity in real time produced fantastic results. Transform is a convolution effect with eight cabinet-style IRs. For us its key feature is Width, which is great for taking VocalSynth's predominantly mono sounds and spreading them out to the sides of the mix.



VocalSynth's waterfall spectrum display provides a useful and stylish indicator of frequency content



With sidechain audio input and remote MIDI pitch control, VocalSynth is great for real-time use

Operation and control

VocalSynth works perfectly well used as a straightforward audio insert in what they call Auto mode. However, much like a vocoder, it can do so much more if you play it via MIDI or route in an alternative carrier signal via the sidechain. Each DAW has its own way of handling internal signal routing, and thankfully, VocalSynth's manual explains setup for all major DAWs, as it can be tricky. Nevertheless, the effort is worth it.

With regard to MIDI, once you've routed your DAW MIDI to the plugin, you get two MIDI input options - monophonic and polyphonic. Activating either of these disables the

Auto mode (and the accompanying Voices section), and allows MIDI pitch control for either monophonic lines or chords. Although common for a vocoder, having a chordal option for the other three engines is both unusual and refreshing.

Meanwhile, activating the sidechain option deactivates the Polyvox engine completely, and also deactivates the onboard wavetable synthesis for the remaining three engines. These all then use the sidechain audio as their carrier signal, and although this is in some respects more limited, it provides a convenient way to use a much wider set of carrier sounds.

Waxing lyrical

VocalSynth is an ambitious plugin that allows you to build complex effects by combining its four distinctive processors. With care it can conjure up some pretty cool results, and the simple interface makes it easy to use. This same simplicity does at times feel somewhat limiting though, and more extensive synthesis combined with more flexible onboard mixing (including panning) would certainly bump up its score a point. To keep things tidy, we also think an onboard gate would be incredibly handy. Even so, you'll struggle to find another plugin that delivers quite this variety of tools, making it an extremely convenient option that's definitely worth checking out. **cm**

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Alternatively

Antares AVOX 4
N/A » N/A » \$399

Suite of 11 plugins, great for vocal harmonies and special effects

Waldorf Lector
cm173 » 8/10 » €169

If you're just after a vocoder, Lector has rich onboard sounds and up to 100 bands for the vocoder

Verdict

For Pitch correction

Four simultaneous processing engines
Output effects
Sidechain input
MIDI control

Against Basic mixer

Underpowered onboard sounds

A comprehensive set of classic synth vocal effects in a simple package, VocalSynth is worthy of praises and can sing its own

8/10