



REVIEW



Antares Kantos

We've been keen to find out what this one's all about for quite a while now. Have the Auto-Tune boys come up with something new and revolutionary, or merely concocted an oddity that's destined for obscurity?



- ▶ **what is it?**
A unique audio controlled synthesizer
- ▶ **system requirements**
VST/MAS/RTAS-compatible host application
- ▶ **test machine**
G4 533MHz dual processor, 1Gb RAM, Mac OS 9.2.2
- ▶ **contact**
Unity Audio:
01440 785843
- ▶ **www.**
antarestech.com
- ▶ **price**
£265.55

It's rare for a truly unique plug-in to hit the market, but from the start, you get the feeling that Kantos is going to be just that. There really isn't anything out there that operates in the way it does, looks the way it does, or sounds the way it does. It's currently available for Mac only, but Antares are planning a Windows-compatible version to follow. So, let's find out exactly what makes Kantos tick...

The first conceptual hurdle to jump is to realise that Kantos is not a virtual instrument as we are used to thinking of them. This soft synth does not accept MIDI notes as triggers for its oscillators; it uses audio to trigger its synthesis engine, and you insert it as a plug-in on an audio track, as you might an EQ unit or compressor. The audio track then serves as the input to Kantos, and craziness ensues.

First, the audio is routed into the Gate Generator, which cleans up the background noise, then

analyses the signal to derive triggers to initiate envelopes and gates to control the envelope duration. Kantos provides two flexible wavetable oscillators that can use either periodic waveforms (sawtooth, sine and so on) or digital audio samples as sound sources. Each oscillator has controls for octave, transposition and fine-tuning, and has a retrigger function.

The oscillators each feed a separate multimode resonant filter and chorus generator, and you can constrain the pitch of each oscillator via its pitch constrain keyboard. This is useful for limiting the oscillator to a specific key or range of notes and for adding pitch to unpitched audio. Finally, a Glide control selects how the pitch slides from one note to the next.

The Articulator

The core of Kantos lies in the Articulator section, where the harmonic content and formant information detected in the

input section can be applied to Kantos' sound sources. It contains a 2-axis Amount and Q control to define the amount and character of the harmonic processing, while a Formant Offset parameter shifts the detected formants up or down – again affecting the sound's character. The Emphasis section tailors the sound's harmonic balance, and the Noise Generator is a broadband noise source with its own multimode resonant filter. This can add sibilance or 'whispering' effects to a patch.

The Articulator also houses a very complete Modulation Matrix. Any source can control multiple destinations, and destinations can be controlled by multiple sources. Nearly every available parameter can be used as a modulation destination, including the modulation amounts of the control routings. Kantos includes two multi-waveform LFOs, which are routed in the Modulation Matrix. Their frequency can be set

manually or via Tap Tempo (though not, unfortunately, sync'd to tempo clock). Two ADSR Envelope Generators are also included as modulation sources to feed destinations in the Modulation Matrix.

To complete our look at its architecture, Kantos includes an amp envelope, effects and mixers before the output. The delay has variable feedback and the time can be set in absolute time or via Tap Tempo (again, not via the sequencer's tempo clock). The Tempo Control section affects delay time, frequency for both LFOs, and allows separate settings for each.

The Submixer controls the level of the internal sound sources, and includes two additional sine wave oscillators to track the fundamental frequencies of their respective wavetable oscillators. The Main Mixer balances the main synth output, the delay line return, and the dry original audio signal. If Kantos is instated as a mono-to-

WHAT & WHERE?

Input

This is where you adjust the input level of your audio track into Kantos.

Oscillators

Two oscillators with selectable waveforms, pitch constrain keyboards, and dedicated filters and chorus.

Articulator

This shapes the harmonics and overall sound via its X-Y graph and Formant Offset.

Effects

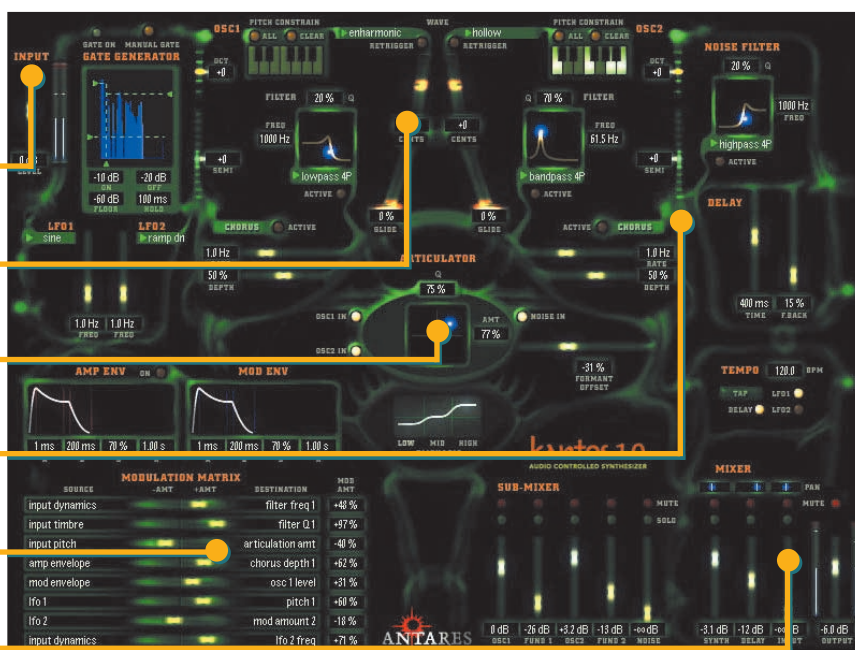
Values can be input by moving the 'glowing blob of light', entering numeric values, or via Tap Tempo.

Modulation Matrix

Sound sources can control multiple destinations, and multiple destinations can control a single sound source.

Mixer

Here, the various sections of Kantos can be blended to taste before final output.



stereo plug-in, each Main Mixer input includes a pan control. Kantos looks striking, resembling something between a video game and a treasure map. In fact, your first reaction is likely to be, 'What does all this do?'. Luckily, it comes with a 65-page manual to explain just that. Once you've got used to its unusual appearance, you'll realise that there is actually a rhyme and reason to the way things are set up and work.

The arrangement of shapes and controls more or less follows the signal flow. The 'little blobs of light' [sic] on the sliders adjust values, and you can use the Command key to invoke the fine tuning mode when moving them. Buttons glow when switched on, and balls in X-Y controllers can be grabbed and moved. Numerical values can be adjusted by either direct numerical entry or up/down arrow keys.

The manual has tutorials that tell you how to use most sections of Kantos, using sound files on the Antares website and the included presets. There are even chapters on the theory of using Kantos. Not only is there a method to the Kantos madness, Antares have also done a great job of letting you know what that method is.

Let's do some damage

Kantos sounds as striking as it looks. Make sure you start with a hot signal – preferably an unaffected one with a fair amount of articulation and dynamics – and Kantos will allow you to do sonic damage to your audio tracks you never would have imagined possible.

The oscillators and filters sound smooth and of high quality, and the routing possibilities lead to nearly endless ways to modulate and enliven your audio tracks. This is far more than a simple effect: it's a true synthesizer that takes

your input and creates something vibrant, organic, and new. Being able to dial in the dry signal means you can use Kantos to create anything from a bizarre harmony to a rhythmic instrumental background to your original audio track. Suffice it to say, Kantos must be heard to be fully understood.

For a 1.0 application, Kantos seems amazingly mature. It's stable, powerful, and looks and sounds unlike any other soft synth available. In fact, it's so unique that we actually wished that we could use it as an audio instrument, and just hear Kantos on its own. And while it's easy enough to sync Kantos to tempo by entering the song tempo into the plug-in, being able to sync automatically to the song tempo would be a wonderful addition.

Still, this is a great sounding, truly original plug-in for sound design and audio recreation. At a time when some others are content to follow the prevailing trends, Antares should be applauded for doing something very different.

VERDICT

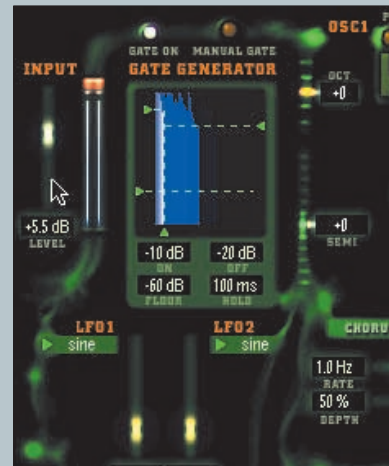
- △ Looks and sounds completely unique
- △ High quality filters and oscillators
- △ Highly flexible routing structure
- △ Excellently written manual and tutorials

- ▽ Looks almost too unique
- ▽ Cannot use MIDI as an input, only audio
- ▽ Can't automatically sync to song tempo



Easy to use..

Don't let the bizarre user interface and style of Kantos fool you into thinking it's hard to use. One of our favourite things about it is how easy it is to take unpitched audio – like a drum loop – and really make it come to life by using it to trigger Kantos. Start with a dry loop (no reverb or delay yet). Kantos can analyse the dynamics of your audio and use that in its Modulation Matrix, so don't compress the audio too much, just enough to keep the extremes under control. Once you've loaded your loop onto an audio track on your sequencer and inserted Kantos into an insert slot, adjust the input level in Kantos to be as 'hot' as possible (it responds best to hot signals). Watch the Gate Generator graph to see a display of your audio: when it fills most of the box, you have a good level. Next, play with the oscillators. When adjusting these, the key is to use the Pitch Constrain of each oscillator to give a pitch to your previously unpitched loop. The Articulator is where you can really shape the eventual sound of your loop. Adjusting the formant offset will drastically affect the attack and harmonics of Kantos' output, so try experimenting with different settings. Lastly, don't forget to experiment with various chorus, delay, envelope, and routing settings to finish off your sound, and use the mixer to blend the levels of the oscillators and effects to taste. In no time, you'll find that the glowing blobs and easy-to-grab graphs practically invite you to try new things and experiment. Kantos is an amazingly flexible sound design tool, and there really is no right or wrong.



Adjust the input slider to get the best signal into Kantos



Use the Pitch Constrain feature of the oscillators to add pitch to an unpitched audio file

And don't forget the Articulator. Adjusting the ball in the X-Y graph, and the Formant Offset, will have a strong effect on Kantos' sound

