



PLUG-IN OUTLET

Sonnox Oxford Transient Modulator and Inflator

By Gary Eskow

Sonnox offers a range of audio plug-ins named Oxford, after the popular Sony Oxford digital console (from whose signal processing the first two plug-ins in the line were taken, the rest being entirely new designs). I'll be looking at several of the Oxford plug-ins and offering audio examples (in the Table of Contents for this issue at recordingmag.com) of what they can do; in this first pass we'll look at two pretty remarkable effects, the Oxford Transient Modulator and Inflator.

Transient Modulator

This plug-in can let you accentuate or soften the impact of transients in your audio material. The manual defines this as follows: "The application was developed to address the common situation where there is a need to selectively tighten up percussive instruments or soften the unwanted percussive effects of acoustic musical instruments."

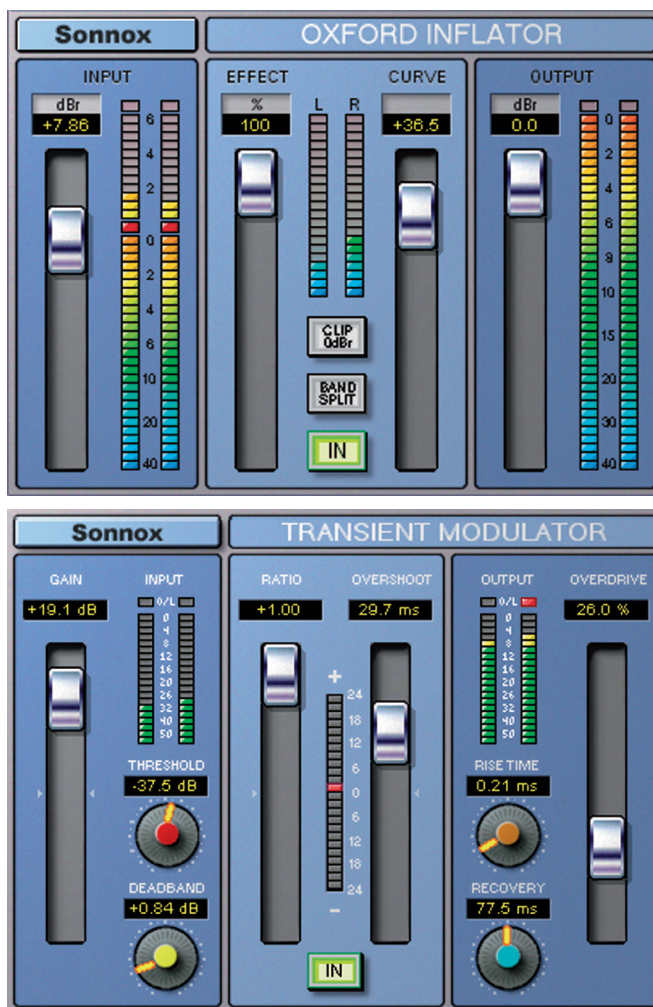
The plug-in is divided into three horizontally laid out sections. The input section includes a gain fader and controls labelled Threshold and Deadband. Threshold, as expected, controls the level at which the plug-in affects the signal. Deadband determines "the range of transient programme change that is ignored." I get it, a variation on the threshold concept—if there's too little change in the audio the plug-in takes no action.

The next section includes controls for Ratio and Overshoot. Ratio values can be either positive or negative; if positive the sound will be accentuated, if negative the signal will be reduced. Overshoot controls the length of time that the TM will be active. A low Overshoot setting means that the processor will affect the sound for a short period of time and will address, for example, only the attack of a drum hit. Higher settings will affect longer sounds—the decay of a tom strike, for example.

The final section includes an Output meter, which tended to clip before the master mixer meter inside Cubase 5 registered an overload. Rotary controls labelled Rise Time and Recovery both subtly affect the response of the Transient Modulator based on the duration of input signal. Low Rise Time settings, for example, process all sounds, regardless of their duration. A low setting combined with a negative Ratio can, therefore, eliminate peaks that occur from quick, perhaps even inaudible signals. Overdrive, the final control, as per the manual, "provides additional harmonic and overload enhancement effects to the TransMod output signal, from 0% to 100%."

The unprocessed loop sounds fine (audio clip 1a), but listen to how much punch the Transient Modulator imparts to it (audio clip 1b). Notice in Figure 1 that I've set the Threshold and Deadband levels to minimum levels, ensuring that the entire loop will be affected. The Ratio and Overdrive settings are fairly aggressive. The result is a punchier loop that will have no trouble making an impact.

This brief synth phrase (audio clip 2a) was made using the Spectrosonic plug-in Omnisphere patch "Anablizz." As shown in Figure 2, I've widened the Overshoot setting to allow TM to affect more of the track and applied more aggressive Ratio and Overdrive (audio clip 2b). Transient Modulator is one of those plug-ins that's easier to use than describe.



A word of advice: When you first play with this plug-in, turn down your monitors—the results can be dramatic!

The manual says that TM can help minimize the unwanted effects of a soupy mix, so I loaded up a convolution reverb and soaked the perc loop. I played with the settings but could not dramatically affect the track. Enter Josep M. Solà, a Product Specialist at Sonnox. Here's what he had to say after listening to the loop I sent him:

"Regarding the TransMod, this plug-in can alter the perception of the early reflections. "Soupy ambience" is a good sample for the test.

"If you try setting # 1 (shown in Figure 3), you'll notice some punchier bongos jumping out of the mix, whereas the shakers and bells remain in the background. This is because the Transient Modulator is now enhancing the attacks or transients and, of course, drums have a more prominent attack than cymbals, shakers, etc. Hence the results. We have here a perception of less room ambience." I applied the settings and the resultant change was dramatic.

Delivery: Web download only

Format: VST, AU, TDM, RTAS, TC PowerCore; Mac OS X 10.4+ or Windows XP/Vista/7

Copy Protection: iLok USB key

License: single iLok (multiple installs, one active at a time)

Documentation: PDF only (downloadable from website before purchase)

Prices: \$195 each (Native); \$375 each (PowerCore); \$470 each (TDM). Also available in Sonnox Elite and Enhance multiple-program bundles, see website for pricing

More from: Sonnox, www.sonnoxplugins.com



Figure 1: Transient Modulator applied to a drum loop



Figure 2: Transient Modulator applied to a synth track

"But let's take the opposite approach. In setting #2 (Figure 4) we are reducing attacks. Bells and shakers sound more present now compared to drums, and so is the room ambience (or early reflections)." He's right! You can hear the original soupy loop and Josep's two sets of Transient Modulator settings in audio clips 3a, 3b, and 3c.

Transient Modulator is a fascinating application. Highly educated and experienced engineers will undoubtedly have no problem mining all of its potential immediately. Musicians who wear a second hat as engineer may take a little longer, but within an hour or so even the novice will be adding punch and clarity to tracks.

Inflator

Ok, I admit it: I can get thrown into a panic when reading manuals aimed at audio mixers who possess a knowledge of the principles and theory of engineering vastly greater than my own. The first paragraph of the Inflator manual tells the user in a straightforward manner that this tool addresses the current preference for loud mixes. Great, no problem, I get it! Here's how the second paragraph kicks off: "The Inflator process functions by changing the relative probability of the samples in the programme such that there is a greater predominance and likelihood

of larger values than the original signal." Uh oh, I'm in trouble.

But it turns out that this plug-in is easy to use, and its effect is fabulous; if you never figure out how the Inflator is working—or if it's built on a traditional compressor model—it will nonetheless add perceived gain and even some analog-style warmth to individual tracks and mixes.

The Inflator sports four faders. The left-most affects input gain. At a setting of 0 dB a full-level input signal is at maximum peak. Beyond 0 dB the Inflator can bring lower-level signals up to full modulation, and it can be used to deliberately overdrive and create distortion. A pair of input meters are adjacent to this fader. If the Inflator's Clip 0 dB button is engaged the plug-in won't allow you to exceed the 0 dB threshold, but these meters will let you know when you otherwise would have. [dB is Sonnox's term for dB relative to Full Scale or Digital Zero, i.e. the absolute maximum level a digital signal can have before it goes into digital clipping—where each binary data word has all 1s. Recording follows the written convention 0 dBFS.—Ed.]

On the right side of the screen you'll see the Output control. If you choose to deselect the 0 dB button and heavily process your material with the Effect and Curve controls (more on them in a minute) you'll most likely have to pull down the output to avoid clipping (Figure 5). Notice how the old-school drum loop sounds without the Inflator in line (audio clip 4a). In audio clip 4b you can hear the effect of the Inflator with some aggressive settings applied; the output has been scaled back to -1.38 dB to compensate for this processing.

The Effect fader with its own meters simply allows you to set the amount of, well, the Inflator's effect. At first blush this confused me, because once you throw up the input gain, aren't you by definition using that control to affect the amount of change the plug-in brings to your material? Further study, however, reveals the way this plug-in (and the entire Sonnox line) reflect the characteristics of the Oxford console from which they were derived. The Curve fader imparts a harmonic character to your program material. This tonal shaping, along with gain alteration, is modified by the Effect control.

Note the Band Split button located just below the Clip dB button in the center of the application. Activating this function splits the incoming signal into three bands which the Inflator processes separately. You do not, however, have access to these bands. When applied to the loaded drum loop the result was a signal overdrive that clipped even when the 0 dB button was engaged. In the old days clipping Digital Zero was seen as the devil's

work, but today we understand that it can be used to artistic effect.

My friend Ed Goldfarb calls the Inflator "The Better Knob," because it seems to enhance every mix he's working on. Call it, to use language that Sonnox is *not* using, a compressor, expander, exciter, or a combination of the three, just to relate in more familiar terms what it does. Regardless of the definition, the Inflator is a simple-to-use application that will be equally useful whether you're looking to spice up individual tracks or impart sizzle and a bit of warmth to final mixes. ➔

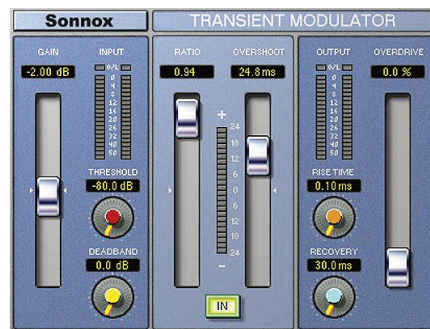


Figure 3: Transient Modulator settings to reduce unwanted ambience by enhancing attacks

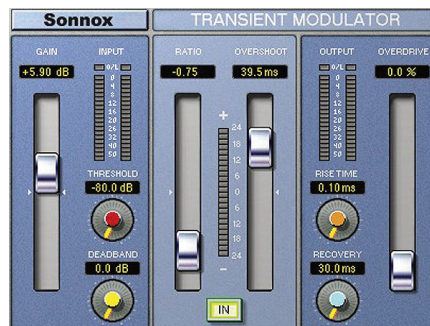


Figure 4: Transient Modulator settings to reduce attacks, strengthening key percussion elements



Figure 5: Inflator applied to a drum loop

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