Neumixturtrautonium

The Neumixturtrautonium makes Oskar Sala's Subharmonic Synthesis, which makes sounds that are sometimes perceived as notes and sometimes as chords and sometimes somewhere in between, available in a VST form for the first time. In conjunction with good controllers and performance, it emulates many of the features of the Mixturtrautonium. Rick Jelliffe

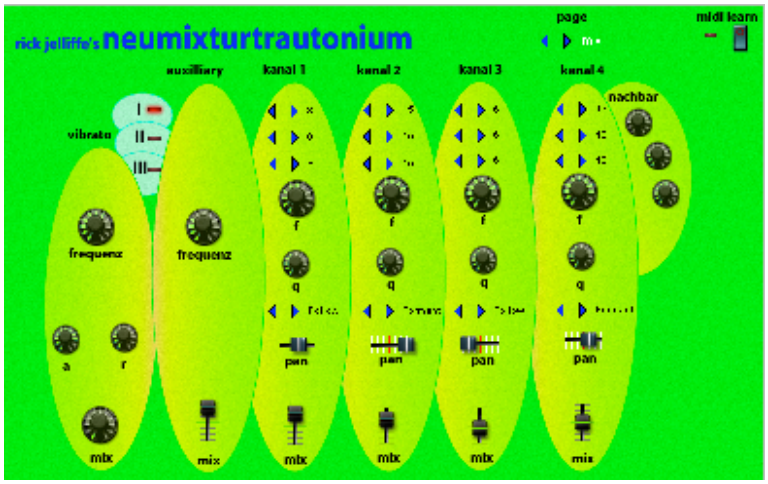
Download and unzip to your VST directory: Neumixturtrautonium.zip
Demonstration: Mixstring.mp3, MixOrgan.mp3, MixCello.mp3 (same sequence)
Three trout play in a stream, up comes a bear
VSTi Synthesizer for Windows
V1.0 01-06-05: release

This program is donationware not freeware. If you use it after trying it out, please pay a donation such as the cost of a CD (say, AU $29-95 = US$22), or send me a bank of presets, or send me some music you made with it. Or send a donation to a charity not connected with you.

Buy Now

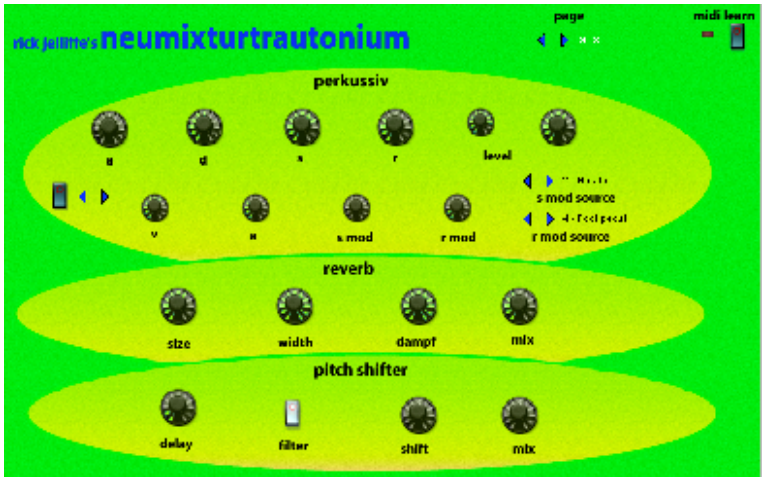
The VST has four tabs, and a MIDI learning function. The fourth tab is a help page with additional useful information about the history and capabilities of Trautoniums.

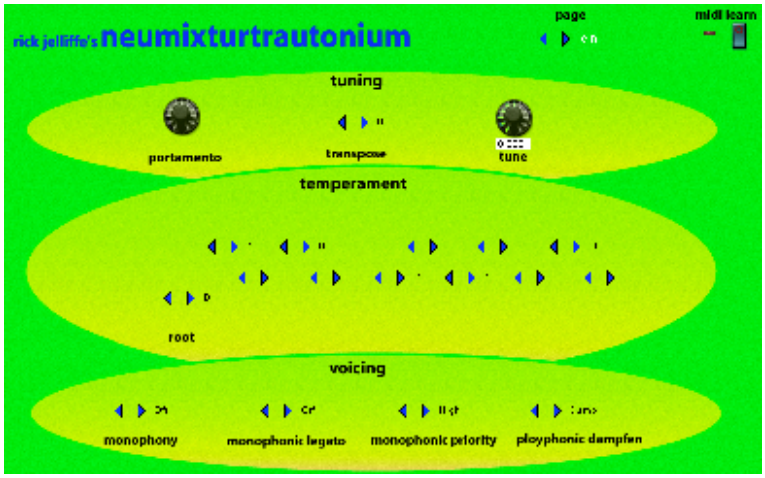
Oscillators



Four-voice synthesizer. Each voice has five audio channels: channel 1 - 4 each have audio oscillators, adjustable to various fixed intervals according to the requirements of *sub-harmonic synthesis*, channel 4 also allows adjustable tuning to "neighbouring" tones, and there is an auxilliary channel with an extra oscillator for chorus/celeste effects.. In the main channels, each oscillators each go through a fixed or key-following formant filter and panner. The intervals at which each oscillator is pitched can be adjusted

by using the modulation wheel (not used for vibrato in this VST) which selects one of three banks for settings. A low-frequency oscillator with delayed onset is available.





Output

The output signal can be adjusted with an ASDSR envelope control, a reverb unit, and a simple frequency shifter. The ADSR can be adjusted for velocity (V controls A), Aftertouch (A controls the peak and sustain), the mix between gated signal and ADSR, as well as other MIDI conrols.

Input

The input controls from the MIDI can be adusted for tuning, portamento, scaling and mono/poly voicing options.

Sources

The four main sources of information used were:

- The description at Obsolete.com, which includes material seemingly from some interesting album liner notes.
- Recorded performances by Oskar Sala at that site and others, and quotes from other website.
- The material on the New Trautonium made by Doepfer in collaboration with Oskar Sala, in particular the descriptions of the Mixturtrautonium.
- The Doepfer module's design.
- The The Digital Trautonium, a 1994 digital replication made with Sala's involvement.

However, these do not all agree. This may be due to Sala's MixturTrautoniums

evolving over time, and to Doepfer adding extra low-hanging fruit to their modules. The inconsistencies, and how they were resoved in the Neumixturtronium VST, are:

- Doepfer and most other sources mention two resonant filters, in parallel at the output, fed by signals from both upper and lower manuals. The Doepfer resonant module has four band-pass filters. The Obsolete/liner notes article states that each channel has its own filter, condradictingly. It also speaks of the filters allowing "gliding transitions": I expect that this means that that the filter frequencies were continuously variable and set by switches. The Digital Trautonium article mentions two resonant filters, in parallel, but gives no further description of them. There is ample scope for confusion here, because some descriptions give numbers for one manual, some give descriptions for both. What the Neumixturtrautonium VST does: Each channel has a single filter, undoubtedly inauthentic, but better for conventional music.
- All the material agrees that the resonant filters are fixed. Yet listening to the first Sala example on the Obsolete site, the noise is clearlng filter to follow a note (not the chuff: listen to the ascending note in the release.) Perhaps this was done by adjusting the filter resonance by hand or foot: in any case it shows one idiom or sound that Oskar Sala used: he mentions it in the track commentary in the liner notes. Or is it the electronic drum machine added in the 50s? What the Neumixturtrautonium VST does: Each filter can be set to `formant` or `follow`.
- Doepfer provides a low-pass filter and straight-through as alternatives to the resonant filter. No other article mentions this. What the Neumixturtrautonium VST does: Bandpass only.
- The Doepfer modules allow square as well as saw waves, while other sources just mention saw. What the Neumixturtrautonium VST does: Saw only.