

Tenacity VSTi by Opulent Audio  
Version 1.0  
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All emails should go to [vst-support@opulentaudio.com](mailto:vst-support@opulentaudio.com)

VST design, DSP and GUI, by Jeremy Phillips (Opulent Audio).

Special thanks to:  
David Haupt, Chris Kerry, Lance Putnam, Chris Rogers, and Jeff McClintock for  
outstanding modules and development tools.

## Product Summary

- Two sample-based oscillators with 35 available waveforms. Each oscillator has it's own tempo-synced rhythmic gate, waveshaping, bitrate (4, 8, 16, or 24 bit) and tuning (octave, semitone, and fine). The oscillators hard-sync to each other to form a feedback loop. Output options: dry signal out, filter 1 or 2 (or both), or delay effect.
  - Two parallel multi-state SV filters, providing simultaneous lowpass, highpass, bandpass, and notch filters on a mixer with individual volume and pan for each filter state. Output options: dry signal out or delay effect.
  - Ring modulation of the two oscillators with 25 modulation types and mix amount. Output options: dry signal out, filter 1 or 2 (or both), or delay effect.
  - Stereo delay with normal or cross mode available. Tempo synced with dozens of sync options. Feedback and mix amounts.
  - Two phrase arpeggiators: oscillators can accept MIDI input 3 ways - either as standard note input or from one of the two tempo-synced phrase arpeggiators. Each oscillator can accept input from a different arpeggiator for the 'dueling arp' effect.
  - Three tempo synced LFOs with 20 waveforms. Each has optional sample and hold with separate sync rate.
  - Two (up to) 8 stage envelopes with many options for triggering, looping, and envelope length. Dozens of tempo sync options available. Each has optional sample and hold with separate sync rate.
  - Eight slot modulation matrix with 11 sources (incl osc gates) and 39 targets, all user defined.
  - Monophonic synth with retrigger option and portamento.
  - Most parameters controllable via MIDI.
  - 32 presets
  - PDF manual included. Additional support available via email.
  - 14 day fully functioning demo
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Thank you so much for trying Opulent Audio's Tenacity VSTi! I hope you enjoy this flexible and fun synth!

This manual is intended to be a brief overview and instruction and not a lengthy journey into synthesis. You'll thank me when you're not still reading this in a half-hour.

It is assumed that you have a basic understanding of synthesizers and synthesis. If you are needing to learn more, the web is jam packed with such information. Google is your friend. If there's anything about Tenacity that isn't covered here, email me with your question.

To install Tenacity, unzip **entire** contents of the ZIP file to your vst plugins folder (consult your host's manual if you need help with this). *Do not change the folder structure in any way.*

During the trial period, every time you load Tenacity, you will see a dialog telling you how many days remain in the trial. You also have the option to purchase a license (links to purchase web page) and enter the license information. You can view this dialog anytime by clicking the 'Registration' button near the 'Tenacity' label on the right side of the GUI.

When the trial period expires, Tenacity will not output sound until valid license information is entered.

All over the synth, you will find pop-up menus when you click the green text fields.

Most components switch on and off. Turning unused items off saves a lot of CPU. Just don't forget to turn stuff on when you use it - or you won't hear it!

To keep things simple, Tenacity has color coded text. Oscillators are orange, filters are blue, modulations and the matrix are purple, the delay is yellow, and any main synth controls are white.

Tenacity has strictly monophonic operation. The retrigger mode determines whether or not notes retrigger (start over) with a new note event. The portamento time knob adjusts the amount of "glide" between notes.

Note - monophonic operation saves CPU (less voices) and is more suited to the complex sounds that Tenacity is capable of. With all the arpeggiation, gating and tuning of the individual oscillators, it just works more cleanly.

The "STFU" button is a panic button in case you get a stuck note. I haven't yet had any stuck notes, but I thought it would be good to include.

Most of Tenacity's parameters are controllable via MIDI.

FLEXIBILITY!!! Oscillators, filters, and the ring mod all have several output options to choose from to make your sound design even more unique. For example, you could route the ring mod to the delay, but nothing else.....I could go on with scenarios. It's best to play around and check out your options.

On to the synth-

Tenacity has two sample-based oscillators with 35 waveforms. You will find you have plenty at your disposal for each osc: tuning for octave, semitone and fine; waveshaping with 10 preset shapes and mix amount; bitrate select - 4, 8, 16, or 24 bit; a 16 step tempo synced rhythmic gate with attack, decay and amount knobs; hard sync to other osc; and several output routings.

There is a ring modulator that automatically rings the two oscs. It has a mix amount and can be turned on and off. There are 25 types of ring modulation to choose from. It also has several output routings.

Each osc also has it's own amplitude ADSR. Remember - Longer release times consume more CPU.

You have two multi-state SV filters at your disposal. Both have simultaneous lowpass, highpass, bandpass and notch modes on a mixer. The filters operate on a parallel basis (side by side).

Each filter mode (LP, HP, etc) has it's own volume and pan to make some nice combinations and 'wide' sounds.

Time to look at the modulations.

Plenty of modulation to be had with three host tempo-synced LFOs and two very flexible envelopes, as well as Mod Wheel, Bender Wheel, Aftertouch, and Velocity.

The LFOs all have 20 waveforms and an optional sample and hold, with separate tempo sync for the s & h. They have the choice of normal (norm), dotted (dot), and triplet (trip) modes for syncing to your host's BPM.

The envelopes can have up to 8 stages. Looping is available. They have many tempo sync options. Simply select a release stage, a loop section, and a sync amount (amount selected is per stage, so you generally set it pretty fast). Each envelope has an optional sample and hold with separate tempo sync.

Tenacity boasts 5 sample and hold units in all!

Most parameters can be modulated via the modulation matrix - 8 slots with 11 selectable sources and 39 possible destinations.

Modulation amounts go from -99 to +99. Negative numbers give inverted mods.

The Phrase Arpeggiators:

There are two arps on this synth! Feel free to dedicate each one to a separate oscillator at a different octave range and tempo sync rate - and a pretty cool little 'dueling arp' happens

When activated, they operate like a standard clocked arpeggiator - playing through the notes depressed, 1-4 octaves in different modes - at different BPM divisions. That's all fine and good (and fun) but the magic of the phrase arp happens when you click the 'Hold' button. In this mode, as long as you keep keys pressed - every key you press will be added to the melody, even after you move on to other keys. When you let go, your sequence will play until you release the 'Hold' button. If you press any keys, the whole

process will start over. Basically, a full 'note-off' followed by a new 'note on' resets the arp. This feature is well suited for live jamming. To use the arp with your sequencer, it is best to leave the 'Hold' off and simply plot long MIDI notes to represent your melody.

Well that should about cover all you need to know to get started with Tenacity. Soon enough, you will be creating pure awesome on your PC.

Thanks again for trying an Opulent Audio product!  
Have fun. Make music. Love life.

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System Requirements:

- Recent Windows OS (2000, XP, Vista)
- SSE enabled processor
- Sound card and VST host program

Basic recommendations for PC music:

- At least 1 ghz CPU, 1 gb of RAM
- Audio Interface/Sound card with ASIO driver
- VST host with sequencer, mixer and other studio options (a workstation)

**IMPORTANT NOTE:**

Use your gear responsibly. Protect it and your ears by keeping volumes at reasonable levels while creating new sounds. Opulent Audio accepts no responsibility if YOU screw up YOUR system or hearing.



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