TinMan User Manual
Version 1.00

TinMan is an auto-peaking resonant filter with multiple pitch detection and individually triggered attack/decay envelopes. In other words, it listens to your audio and makes matching spooky wooo-eeee-oooo effects.

Usage Suggestions

Spookiness
If you're doing a sci-fi soundtrack try feeding something, *anything*, into TinMan and turn the wet mix up full. My God ! It's made of *people!*

Movement
Apply liberally to boring synths, bland string washes and tedious reverbs to add some interest and activity.

Guitars
From giving arpeggios some flourish to fully-wet synth effects, TinMan loves guitars .

Backing Vocals
Everyone knows that bass players can't sing. But sometimes you just have to use what you've got, and Tin Man can even turn it into something that sounds like music.

Percussion
Set the time controls fast, the threshold high, and turn off oink. Apply to drums and bass for a whole host of percussive effects and special effects..

Enhancement
With 'Oink' disengaged, a low threshold and the freqency bar set really high, TinMan can add some sparkly top end end to almost any sound. Just keep that wet mix low!

Have fun!

Unspeakably Clever Technology

TinMan uses a new polyphonic pitch detection algorithm to isolate and rank the strongest pitches in the input audio. For each pitch that is above the threshold and between the low and high frequency settings, a separate resonant filter, or resonator, is peak-matched to that exact pitch (even if it's off-key), and an attack envelope is triggered. If a pitch *slides*, the resonator's resonant peak will continue to track it. If a pitch ends, the resonator will release until fully quiet.
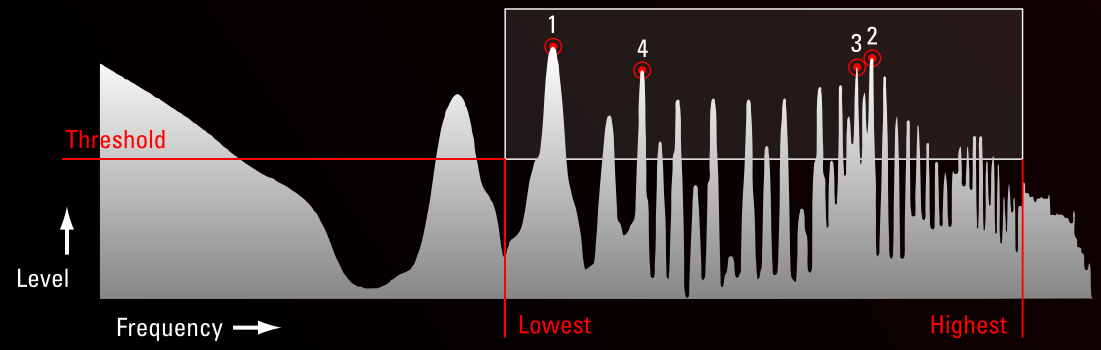
TinMan
Control Panel

You could just play with the controls. Or you could read this. If you're *really* smart, you'll do both.

Tracking Display
TinMan's resonators are indicated here. The location of a glow on the keyboard diagram indicates the pitch of a resonator, and the intensity of the glow indicates the intensity of the resonator as it fades in and out in following the times set by the Attack & Release controls.

If the glow is in the centre of the note, the resonance is exactly the pitch of that note. If the glow is off center or moving, it means that the pitch of the resonator is off-key. This is probably because you're applying TinMan to a string quartet and TinMan is tracking their *artistic* interpretation of '*in tune*'.

User
That's you. You have extremely good taste. You want to register.

Schwa
drew no pixels.

Number of Resonators
how many separate resonators can be triggered simultaneously by individual pitches. Regardless of this setting, an unlimited number of resonators can be releasing at once. For example, if the number of resonators is one and you play an arpeggio, each new note in the arpeggio will trigger a new resonator, but the resonators that were triggered by the previous notes will continue to sound until their envelopes are fully released. Oh, just play with it, OK?

White Tie
wrote no code.

Highest/Lowest Frequency
limits the frequency range of the resonators. The range in use is shown on the display by the horizontal bar.

HIGHEST Hz

LOWEST Hz

OVER SAMPLE

schwa

TinMan

INTELLIGENT RESONATOR

V1.00   registered

NUMBER OF RESONATORS

| 1 | 2 | 3 | 4 |

THRESHOLD   RESONANCE   DRY MIX WET   ATTACK TIME RELEASE

LIMIT   OINK

Oversample
Press this to make Tin Man's honking into the most amazingly finecrafted sonic perfection, and also to melt your CPU. Actually, we think it sounds excellent with oversampling off, so the switch is mostly just useful as a hardware self-destruct button.
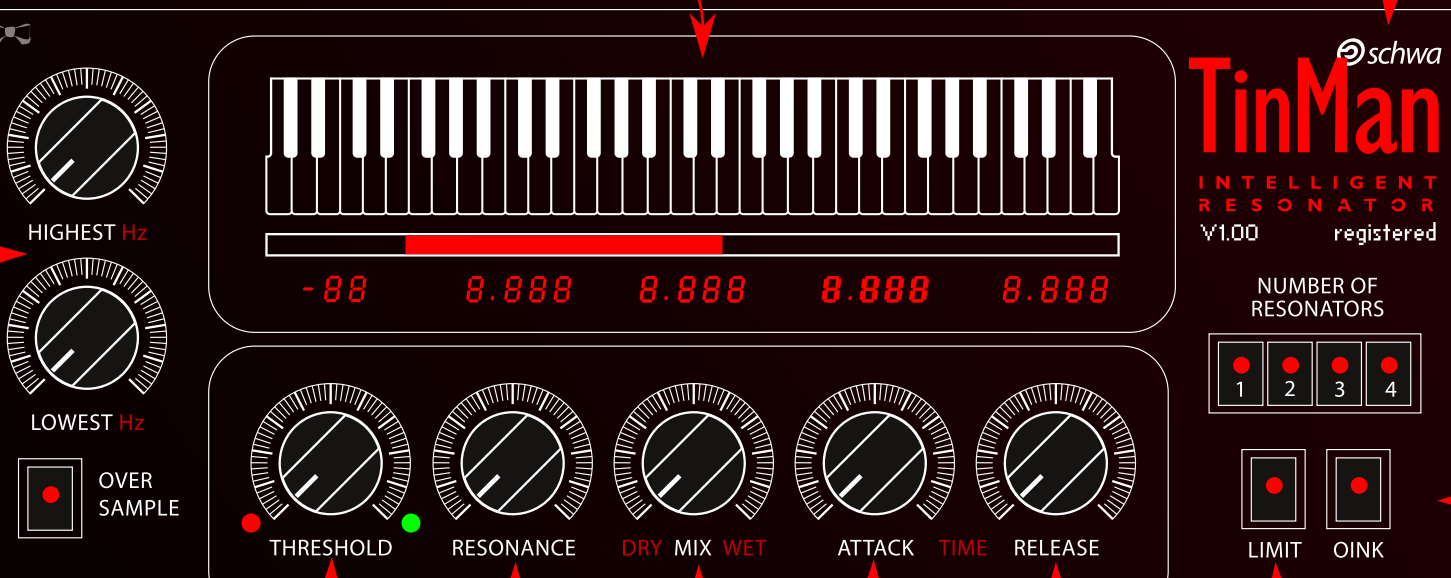
Threshold
how loud an individual pitch must be to trigger a new resonator attack. The **Green** light comes on when the threshold is crossed, indicating that resonators have been triggered. The **Red** light indicates that you're not trying hard enough.

Resonance
how spooky the resonators are. *Be careful, they can get pretty spooky.*

Dry/Wet Mix
how much of the unprocessed signal and how much of the resonant weirdness you hear.

Attack
how quickly the resonators are applied to an individual pitch after detection.

Release
how quickly the resonator sound fades after an individual pitch drops below the threshold.

Limit
applies a brickwall soft-clipper to each resonator individually. If the resonance is high and the mix is wet, the soft-clipper can strongly affect the sound; however, if the soft-clipper is off you may die horribly. Your call.

Oink
switches the resonator character between an analog low-pass ladder filter (oink on) and an all-pass operational transconductance amplifier (oink off). **Oink on** is more like scary zombie pigs, but **oink off** can add some useful and more subtle percussive effects.