JUST FRIENDS

MANIFOLD GENERATORS FOR NAVIGATING SOCIAL CONTOURS

JUST FRIENDS discussing the many facets of their empathic geometry. In generating manifold envelopes, projecting impulses, cycling on parallel gradients. Throw contorted shapes at neighbours, or emanate sonic vibrations.

Originating in the realm of the west-coast function generator, stretching into tonal relativism, landing in a geocentric vista of personal patch communion. Redefine relationships, embracing life's empathic ambiguities.

TRIGGERS & OUTPUTS

Six independent function generators are launched by corresponding TRIGGER inputs, with outputs & indication at their feet. In/Out pairs are marked from left to right, *IDENTITY* through *6N*. Even small triggers (>750mV) will begin pulses, sustain envelopes, or restart cycles depending on MODE. Normalized from right to left, a TRIGGER in the rightmost will apply to all six.

MIX provides a combination of all active slopes depending on rate. In *shape* the highest current slope is output, where each ascending OUT is divided by its number: IDENTITY is whole, while 3N is 1/3rd. In *sound* a musically balanced output is combined, floating around 10V peak-to-peak, AC-coupled.

POWER CONSUMPTION

###mA @ +12V
###mA @ -12V

Shrouded power connector Red Stripe (-12V) to left when viewed from rear.

MIX-shape: scaled maximums
+8V
0V
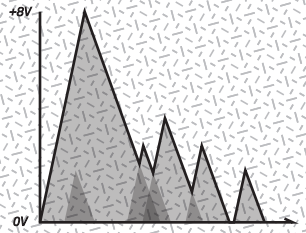
shape
+8V
0V

shape is focussed on control & modulation. Unipolar outputs are ideal for envelopes with high 8V peaks to insure drama.

sound
+5V
-5V

sound's momentum is accelerated to audible regions. Bipolar 10V output lends to harmonic oscillations & morphing wave-impulses.

TIME
60s to 60Hz
w/ ext CV 3mins to 1800Hz

TIME defines the base rate for all six *shapes*, from languid undulations, through razor sharp plucks. V/8 scaling allows rhythm-accurate temporal shifts, while FM input provides linear time-shift (Hz/V) control w/ amount.

TIME (PITCH)
1Hz to 1200Hz
w/ ext CV 4s to 20kHz

TIME becomes PITCH for *sounds*, providing accurate tuning, and V/8 melodic control. Apply linear through-zero Frequency Modulation to all channels with on-board attenuation, for glassy harmonic tones.
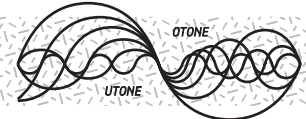
INTONE
CCW
CW
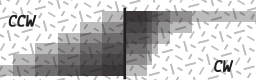
INTONE defines tempic relationships of each generator. At 12:00, all *shapes* move pro rata. Clockwise accelerates toward integer multiples, vs divisions in the opposite. Set at either extreme, rhythmic ratios are defined by the OUT labels; Outs 2N & 3N provide two:three ratios or rhythms.

FM input, turned to INTONE, allows attenuated INTONE modulation. With no input, FM becomes a *detune* amount – To ensure the accuracy of the INTONE control, set FM to 12:00.

INTONE
OTONE
UTONE

For *sounds* INTONE sets harmonic ratios with unison and raw detuned MIXes near 12:00. Clockwise spreads upward through unjust chords, approaching the harmonic series in the extreme. Inversely the utonal series is reached full CCW.

INTONE FM provides linear modulation in amounts according to the OUT names. Thus IDENTITY is unaffected, while 6N is heavily modulated. When using the MIX output for FM-modulated tones, this mode retains more fundamental frequency while shaping the highs more intensely.

MODE: transient, sustain, cycle

transient Input TRIGGERS start slopes which ramp up then immediately down. These *Attack-Release* shapes run just once, and will ignore additional TRIGGERs while in motion. For *sounds*, sending audio-rate signals to TRIGGER inputs will produce MANGROVE-style impulses full of subharmonics.

transient
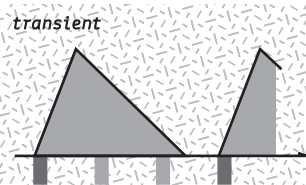
sustain TRIGGER inputs accept gates, sloping high with positive voltages, then falling when input goes low. Once the slope reaches maximum it will sustain as long as the gate input is high. For *sounds*, impulses are shaped by the interaction of the TRIGGER source's pulsewidth & TIME control.

sustain
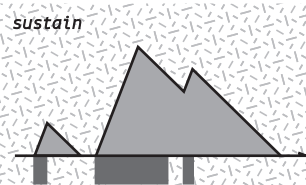
cycle All slopes are free-running, cycling up & down at rates defined by TIME & INTONE. TRIGGERs restart each cycle for tempo-sync or hardsync audio. TRIGGERing only 6N will synchronize all channels due to their normalization. Use an output or two to self-modify the oscillation behaviour via RAMP or INTONE.

cycle
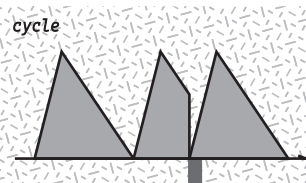
RAMP & CURVE

RAMP skews slopes from sawtooth, through assymetrical triangles to ramp waves. Like MANGROVE's barrel, the overall TIME is maintained, while bending the shape. From snappy envelopes or slow rise LFOS, to waveshaped oscillations or pitch-divided impulse trains. *NB: modulation for sounds will create a chorus-like pitch effect.*

CURVE bends the slopes from the default linear gradients at 12:00. CCW bends to snappy 'expo' envelopes, and reaches cosines at the extreme. CW passes through lazy 'log' shapes then slides through trapezoids into squares with RAMP controlling pulsewidth.

RAMP
CCW   –   CW

CURVE
CCW   –   CW