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.

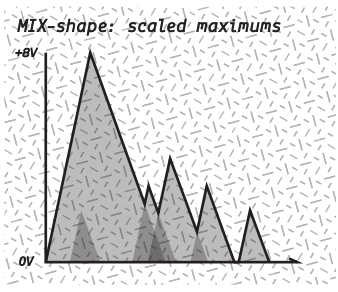
MIX provides a combination of all active slopes depending on *speed* mode. In *shape* the highest current slope is output, where each ascending OUT is divided by its number: IDENTITY is whole, while 3N is 1/3rd. In *sound* a musically balanced output is combined, floating around 10V peak-to-peak, AC-coupled.

POWER CONSUMPTION

96mA @ +12V
30mA @ -12V

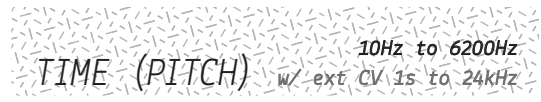
Shrouded power connector Red Stripe (-12V) to left when viewed from rear.

MIX-shape: scaled maximums



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

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



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 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 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.

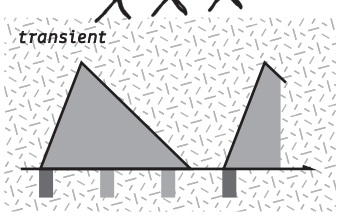
FM input, turned to INTONE, allows attenuated INTONE modulation. With no input, FM becomes a *detune* amount - To ensure the accuracy of the INTONE control, set FM to 12:00.

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.

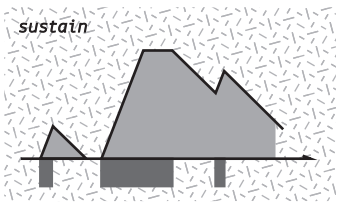
INTONE FM provides linear modulation in amounts according the OUT names. Thus IDENTITY is unaffected, while 6N is heavily modulated. When using the MIX output for FM-modulated tones, this mode retains the fundamental frequency while shaping the highs intensely.

MODE: transient, sustain, cycle

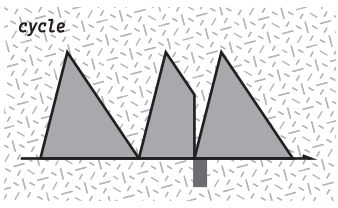
transient Input TRIGGERS start slopes which ramp up then immediately down. These *Attack-Release* shapes run just once, and will ignore additional TRIGGERs while in motion. For *sounds*, sending audio-rate signals to TRIGGER inputs will produce MANGROVE-style impulses full of greasy digital subharmonics.



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.



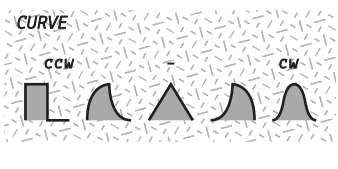
cycle All slopes are free-running, cycling up & down at rates defined by TIME & INTONE. TRIGGERs restart each cycle for tempo-sync or hardsync audio. TRIGGERing only 6N will synchronize all channels due to their normalization. Use an output or two to self-modify the oscillation behaviour via RAMP or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



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. CW passes through lazy 'log' shapes, and reaches cosines at the extreme. CCW twists to snappy 'expo' envelopes then *slides* through trapezoids into squares with RAMP controlling pulsewidth.



RUN

A RUN on the banks. This jack opens onto the interior architecture of JUST FRIENDS, altering equations and shifting functionality. Each combination of MODE & sound/shape entertains its own eccentricities, suggesting alternative utilisations. These multiple personalities differ slightly, or wildly reimagine functionality. Learn to live together, not fight the divide, embracing ones multifarious ambiguities.

Attach a static voltage, modulation CV or even audio signals. RUN senses the presence of a cable and shifts mindset instantly. A useful default is always at zero volts, enabling dummy-cable access. Experimentation is rewarding.

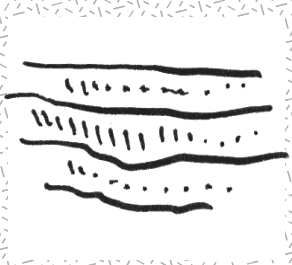
SHIFT *shape/transient*

SHIFT alters the retrigger behaviour in transient mode. At zero volts, or when dummied, the retrigger point becomes end-of-rise, opposed to end-of-cycle as per normal. Retriggers start the cycle over by jumping instantly to zero before ramping up.

Negative voltages bring the sensitivity forward in the cycle to 'always' (-5V), while positive voltages push toward the end-of-cycle, operating 'normally' at +5V.

Modulating ***SHIFT*** is particularly effective for slow envelopes with shark attack|\|\|\.

STRATA *shape/sustain*

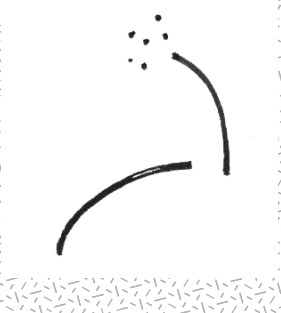


STRATA creates an additional plateau in each repetition allowing 'ARSR' style envelopes. Gates are followed as normal, however at the end-of-rise the output will start falling until it reaches the STRATA input. When the gate ends, the output falls to zero from it's current value.

At zero, STRATA is half-way through the release. With ***CURVE*** at 12:00 this means 4V output, or -6dB into a linear VCA, though ***CURVE*** will drastically affect this voltage. Positive ***STRATA*** moves the hold level higher, while negative input approaches the minimum.

Hold all ***TRIGGERS*** high and all outs will act as shaped voltage-followers for ***RUN*** with varying time constants.

VOLLEY *shape/cycle*



VOLLEY launches bursts of slopes in response to TRIGGERS. The number of cycles is determined by the ***VOLLEY*** voltage when the ***TRIGGER*** arrives for dual CV & Gate sequencing.

Six repetitions occur at ***VOLLEY***=zero, with decreasing number in the negative down to a choking none below -4v. Positive voltages move up to 36 cycles.

All kinds of bizarre self-modulating sequences are possible by self-patching outs into CV or ***TRIGGER*** inputs, all started by a single external excitation.

SPILL *sound/transient*

SPILL allows ***IDENTITY*** to overflow its influence amongst the other slopes. Each time it completes a cycle, ***IDENTITY*** will trigger any receptive slopes from their beginnings.

Threshold for triggering is as for ***SHIFT*** allowing varying degrees of phase-locking. Many sub-harmonics & sync sounds are available, without an external oscillator.

PLUME *sound/sustain*

PLUME funnels oscillations through a lowpass gate construct, sounding somewhere between pinged filter and plucked LPG. ***TRIGGERS*** are gate-sensitive so longer pulses can hold ***PLUME***s open, while short spikes sound more softly.

At zero volts, ***PLUME*** responds similarly to the classic VTL5C3 vactrol with fast attack and moderate decay. Negative voltages slow these rates into sustained waves, while positive input transitions to microsound blips ideal for rapid-burst triggering. The RUN voltage is sampled at each trigger leaning into sequenced crumbling decay.

FLOOM *sound/cycle*

FLOOM weaves your slope stories into a sinusoidal tapestry. Each generator carries internally the modulation of it's own cosine, linked at the same pitch. The FM input now adds to your modulation index.

Zero volts provides linked carrier-modulation pitch for wavefolding harmonic richness. Non-zero RUN voltages stress their relationship from 1/2 through 2/1.

JUST TYPE: JUST FRIENDS talks 'II' to monome's *teletype* module. Digital control adds new shades of velocity & pitch control. Your key to unlock polysynthetics and shape geodes.

Head to whimsicalraps.com/pages/just-type