

SOUND SOURCES / OSCILLATORS

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| Physical models | <ul style="list-style-type: none"> PLUK BOWD BLOW FLUT Windsyo String resonator Modal resonator | <ul style="list-style-type: none"> Simple plucked string Simple bowed string Simple single-reed wind Simple air-jet flute Specific wind instrument models (Reed1: generic reed model) Specific wind instrument models (Flute model) Specific wind instrument models (Duduk model) Specific wind instrument models (Sylphynet model) Vibrating string simulator Vibrating structure simulator |
| Exciters | <ul style="list-style-type: none"> Bow Wind Strike | <ul style="list-style-type: none"> Bowing noise generator Wind noise generator Percussive noise generator |
| Noise | <ul style="list-style-type: none"> White noise NOIS TWNQ CLKN CLOU PRTC QPSK TOY* | <ul style="list-style-type: none"> Simple white noise generator Filtered noise Resonant noise Random sample generator Granular cloud generator Particle system simulator Telecommunication data generator Circuit-bent toy |
| Percussive models | <ul style="list-style-type: none"> BELL DRUM KICK SNAR CYMB | <ul style="list-style-type: none"> Additive bell sound oscillator Additive metal drum oscillator 808-style kick drum 808-style snare drum 808-style cymbals |
| Virtual Analog | <ul style="list-style-type: none"> Sine wave Triangle wave Square wave Sawtooth wave Virtual analog SUB FOLD SYNC x3 SawSwarm | <ul style="list-style-type: none"> Pure tone without any harmonics Soft tone with some odds harmonics Harsh, rich tone with many odds harmonics Very rich tone with many harmonics A virtual analog oscillator with smooth waveform transition Waveform with sub-oscillator Folded sine/triangle Dual hard-synced waveforms Triple oscillator Seven detuned sawtooths |
| Digital oscillators | <ul style="list-style-type: none"> BUZZ VOSM VOWL VFOF HARM | <ul style="list-style-type: none"> One to many sine waves Voice simulator Early speech synthesizer FoF vowel simulator Additive oscillator |
| Wavetable | <ul style="list-style-type: none"> WTBL WMAP WLIN WTx4 | <ul style="list-style-type: none"> Wavetable oscillator 2D wavetable oscillator Interpolated wavetable oscillator Four-voice wavetable oscillator |
| External audio inputs | <ul style="list-style-type: none"> Main L Main R Main L+R Aux L Aux R Aux L+R | <ul style="list-style-type: none"> Main input Left Main input Right Main inputs Left + Right Aux input Left Aux input Right Aux inputs Left + Right |

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| Resonators | String resonator Modal resonator Snare resonator | Vibrating string simulator Vibrating structure simulator Simple single-reed wind |
| Filters | SVF Two-stage resonant filter (-12 dB/oct) Ladder Classic resonant filter Simple EQ Dirty formant filter | Lowpass Highpass Bandpass Notch LP4 Lowpass (-24 dB/oct) HP4 Highpass (-24 dB/oct) LP3 Lowpass (-18 dB/oct) HP3 Highpass (-18 dB/oct) LP2 Lowpass (-12 dB/oct) BP2 Bandpass (-12 dB/oct) HP2 Highpass (-12 dB/oct) Notch Simple equalizer Old-school FoF-based formant filter |
| Dynamics | VCA Tremolo Noise gate Compressor Dynamics booster | Voltage-controlled amplifier (decreases the level of its input signal) Change the amplitude of the input in a periodic way Attenuates the input when the signal is below a threshold Compress the input signal Tame or boost the signal by compressing it |
| Mix | Cross-fader Cross-fader with drive Rotary speaker (stereo) | Balances between two inputs Cross-fader with drive controls Simulation of a stereo rotary speaker (affects both buses) |
| Timbre | Amplifier Overdrive Bitcrusher | A saturating amplifier Saturates without increasing volume Reduces the resolution of the audio signal |
| Cross Modulation | Cross-folder Ring modulator XOR modulator CMP modulator | Wavefolds two inputs together Ring-modulates two inputs together XORs two inputs together bit by bit Cross-modulates two inputs with digital comparison operators |
| Modulation | Chorus Phaser Pitch shifter Rotary speaker FM Operator | Thickens the input Six-stage phase shifter Transposes the input Simulation of a rotary speaker An oscillator that can be used to build complex FM structures |
| Delay | Delay Delay (sync) Ping-pong delay Ping-pong delay (sync) Reverb Granular processor | Delay line with feedback and damping Delay line with feedback and damping (synced to the tempo) Ping-pong stereo delay line (uses both buses) Ping-pong stereo delay line (uses both buses, synced to the tempo) Mono reverberation effect Creates audio textures by combining short segments of the input |

MODULATORS

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| LFO | <ul style="list-style-type: none">Simple LFOAdvanced LFOSlow LFOLFO (sync) | <ul style="list-style-type: none">Simple low-frequency oscillatorAdvanced low-frequency oscillator with shape and fade-in controlsLow-frequency oscillator with very long periods of timeLow-frequency oscillator synced to the tempo |
| Envelope | <ul style="list-style-type: none">EnvelopeDAHDSR Envelope | <ul style="list-style-type: none">Simple envelope generatorDAHDSR envelope generator |
| Sequencer | <ul style="list-style-type: none">Step sequencerEuclidean sequencerHex sequencer | <ul style="list-style-type: none">Change a value according to a predetermined pattern over timeGenerate euclidean rhythmsGenerate rhythms from hexadecimal numbers |
| Audio processors | <ul style="list-style-type: none">Envelope followerTimbre followerDrum trigger | <ul style="list-style-type: none">Transform an audio signal into a smoothed valueExtract the brightness from an audio signalDerive a signal suitable for percussive sound triggering |
| Shape | <ul style="list-style-type: none">XformCurveQuantizeChange polaritySmoothAccumulateLookup table | <ul style="list-style-type: none">General-purpose value transformApply a curve to a valueReduce the resolution of a valueMake a unipolar value bipolar, and vice-versaSmooth out the variations of a valueAccumulate a value or variations over timeChange a value according to a predetermined shape |
| Physics | <ul style="list-style-type: none">Bouncing ballBall impactSpring-damper system | <ul style="list-style-type: none">Simulate the movement of a single bouncing ballSimulate the impact of several independent bouncing ballsSimulate a spring-damper system attached to the input |
| Chaos | <ul style="list-style-type: none">Logistic mapTent mapCircle mapDiscrete chaotic mapCellular automaton | <ul style="list-style-type: none">Unfold the logistic equation on each triggerUnfold the tent map sequence on each triggerUnfold the circle map sequence on each triggerApply a specific chaotic map equation on each triggerUse specific bits of a running cellular automaton |
| Logic | <ul style="list-style-type: none">Gate combinatorTrigger combinatorGate to triggerGate delayTrigger delay | <ul style="list-style-type: none">Perform successive operations on a series of gates; e.g., (G1 and G2) or G3Perform successive operations on a series of triggers; e.g., (T1 and T2) or T3Converts gate transitions into triggersDelay the gate signal by a given time offsetDelay the trigger signal by a given time offset |
| React | <ul style="list-style-type: none">ImpulseCountTimeDelayLatchMinimumMaximumCompare | <ul style="list-style-type: none">Generate an impulse from a value and a triggerGenerate an impulse from a value and a triggerMeasure the time since a triggerDelay the signal by a given time offsetCapture a value when a trigger occursKeep the minimum of a value since a triggerKeep the maximum of a value since a triggerDetermine when the input value goes above or below a threshold |
| Constrain | <ul style="list-style-type: none">ClampWrapFold | <ul style="list-style-type: none">Limit a value to an intervalWrap a value around an intervalFold a value inside an interval |
| Combine | <ul style="list-style-type: none">InterpolateInterpolate (4-point)Calculate | <ul style="list-style-type: none">Cross-fade between two valuesInterpolate between four pointsPerform successive operations on a series of values; e.g., $\min(I1+I2,I3)$ |