

Overtone Cheat Sheet (Overtone 0.3.0)

REPL helpers

Documentation	ug-doc find-ugnfind-ug-doc
Examples	example examples get-example

Synths

Design	definst defsynth
Examples	defexamples
CGens	defcgen
Control	ctl kill

Event Handling

Add	on-event on-sync-event
Remove	remove-handler remove-all-handlers
Trigger	event sync-event
Synth Triggers	on-trigger remove-trigger

Sound Data

Buffers

Create & Free	buffer buffer-free
Read & Write	buffer-read buffer-write! buffer-fill! buffer-set! buffer-get buffer-save buffer-data buffer-read
Info	buffer-info num-frames buffer-id

Samples

Create	load-sample sample defsample
Playback	mono-player stereo-player

Busses

Create & Free	control-bus audio-bus free-bus
Modify	bus-set! bus-set-range!

Nodes & Groups

Create	node group node-free group-free group-clear
Manipulate	node-run node-stop node-place node-control node-control-range node-map-controls prepend-node append-node
Info	node-tree

Algorithmic Composition

Chance

Choice	choose choose-n weighted-choose
Dice	weighted-coin ranged-rand

Scaling

Range	scale-range
Rounding	closest-to round-to

Trig

Scaled	cosr sinr tanr
--------	----------------

Audio

Positino	splay-pan
----------	-----------

Music

Pitch

Ratios	unison octave fifth sixth third fourth min-third min-sixth
Note Shifting	shift flat sharp invert
Notes, Scales & Chords	note octave-note resolve-scale scale-field nth-interval resolve-degree degree->interval degrees->pitches resolve-degrees scale resolve-chord chord nth-octave nth-equal-tempered-freq interval-freq
Frequencies	cent midi->hz hz->midi
Amplitude	db->amp

Studio

Instruments

Drums	kick small-hat c-hat o-hat round-kick snare snare2 tom
Piano	piano
Sampler	granular
Synth	tick ping tb303 mooger rise-fall-pad pad buzz bass grunge-bass ks1 ks-stringer fm-demo harmonic-swimming whoahaha bubbles
IO	mic

Effects

Mixer	volume pan inst-volume inst-out-bus inst-fx clear-fx
FX	fx-noise-gate fx-compressor fx-limiter fx-sustainer fx-reverb fx-echo fx-chorus fx-distortion fx-rlpf fx-rhpf

Metronome

Create	metronome
bps	beat-ms

Visualisation

Scope

Create & Reset	scope pscope reset-scopes
----------------	---------------------------

CGens

Audio In	sound-in
Oscillators	pm-osc square
Mix	mix splay

Unary UGens

neg not-pos? abs ceil floor frac sign squared cubed sqrt exp reciprocal midicps cpsmidi midiratio ratiomidi dbamp ampdb octcps cpsoct log log2 log10 sin cos tan asin acos atan sinh cosh tanh distort softclip rect-window han-window wel-window tri-window
---

Binary UGens

+ - * / mod = not= < > <= >= min max and or xor round round-up round-down atan2 hypot hypot-aprox pow ring1 ring2 ring3 ring4 difsqr sumsqr sqrsun sqrdif absdif thesh amclip scale-neg clip2 excess fold2 wrap2
--

B Equalization Suit UGens

b-low-pass b-hi-pass b-all-pass b-band-pass b-band-stop b-peak-eq b-low-shelf b-hi-shelf
---

Buffer IO UGens

play-buf t-grains buf-rd buf-wr record-buf scope-out local-buf max-local-bufs set-buf clear-buf
---

Chaos UGens

quad-n quad-l quad-c cusp-n cusp-l gbman-n gbman-l henon-n henon-l henon-c latoocarfian-n latoocarfian-l latoocarfian-c lin-cong-n lin-cong-l lin-cong-c standard-n standard-l fb-sine-n fb-sine-l fb-sine-c lorenz-l
---

Compander

amplitude compander normalizer limiter
--

Delay UGens

delay1 delay-n delay-l delay-c comb-n comb-l comb-c allpass-n allpass-l allpass-c buf-delay-n buf-delay-l buf-delay-c buf-comb-n buf-comb-l buf-comb-c buf-allpass-n buf-allpass-l buf-allpass-c
--

## Demand UGens

demand duty t-duty demand-env-gen dseries dgeom  
dbufrd dbufwr dseq dser dshuf drand dxrand dswitch1  
dswitch dwhite dbrown dibrown dstutter donce dpoll

## Envelope UGens

done free-self pause-self free-self-when-done  
pause-self-when-done pause free env-gen linen  
i-env-gen

## Fixed Frequency Oscillator UGens

f-sin-osc klang klank blip saw pulse p-sin-grain

## FFT UGens

fft ifft pv-mag-above pv-mag-below pv-mag-clip  
pv-local-max pv-mag-smear pv-bin-shift pv-mag-shift  
pv-mag-squared pv-mag-noise pv-phase-shift90  
pv-phase-shift270 pv-conj pv-phase-shift  
pv-brick-wall pv-bin-wipe pv-mag-mul pv-copy-phase  
pv-copy pv-max pv-min pv-mul pv-div pv-add  
pv-mag-div pv-rand-comb pv-rect-comb pv-rect-comb2  
pv-rand-wipe pv-diffuser pv-mag-freeze  
pv-bin-scramble fft-trigger

## Extra FFT UGens

pv-conformal-map convolution convolution2  
convolution2-1 stero-convolution2-1 convolution3  
pv-jenson-andersen pv-hainsworth-foote running-sum

## Filter UGens

resonz one-pole one-zero two-pole two-zero apf  
integrator decay decay2 lag lag2 lag3 ramp lag-ud  
lag2-ud lag3-ud leak-dc rlpf rhpf hpf bpf brf  
mid-eq lpz1 lpz2 hpz1 hpz2 slope bpz2 median slew  
sos ringz formlet detect-silence

## Grain UGens

grain-sin grain-in warp1

## Information UGens

sample-rate sample-dur radians-per-sample  
control-rate control-dur subsample-offset  
num-output-busses num-input-busses num-audio-busses  
num-control-busses num-buffers num-running-synths  
buf-sample-rate buf-rate-scale buf-frames  
buf-samples buf-dur buf-channels check-bad-values  
poll

## Input UGens

mouse-x mouse-y mouse-button key-state

## IO UGens

disk-out disk-in v-disk-in in local-in lag-in  
in-feedback in-trig shared-in out replace-out  
offset-out local-out x-out shared-out

## Line UGens

line x-line lin-exp lin-lin amp-comp amp-comp-a k2a  
a2k t2k t2a dc silent

## Machine Listening UGens

beat-track loudness onsets key-track mfcc  
beat-track2 spec-flatness spec-pcile spec-centroid

## MDA UGens

mda-piano

## Miscellaneous UGens

pitch-shift pluck part-conv hilbert freq-shift  
g-verb free-verb free-verb2 moog-ff spring ball  
t-ball check-bad-values gendy1 gendy2 gendy3

## Noise UGens

white-noise brown-noise pink-noise clip-noise  
gray-noise crackle logistic lf-noise0 lf-noise1  
lf-noise2 lf-clip-noise lfd-noise0 lfd-noise1  
lfd-noise3 ldf-clip-noise hasher mantissa-mask dust  
dust2

## Oscillator UGens

osc sin-osc sin-osc-fb osc-n v-osc v-osc3 c-osc  
formant lf-saw lf-par lf-cub lf-tri lf-gauss  
lf-pulse var-saw impulse sync-saw wrap-index  
index-in-between detect-index shaper degree-to-key  
select vibrato index

## Pan UGens

pan2 lin-pan2 pan4 balance2 rotate2 pan-b pan-b2  
bi-pan-b2 decode-b2 pan-az x-fade2 lin-x-fade2

## Random UGens

rand-seed rand-id i-rand t-rand ti-rand n-rand  
exp-rand t-exp-rand coin-gate lin-rand

## STK UGens

stk-pluck stk-flute stk-bowed stk-mandolin  
stk-saxofony stk-shakers stk-banded-wg  
stk-voic-form stk-modal-bar stk-clarinet  
stk-blow-hole stk-moog stk-bee-three

## Trig UGens

tw-index trig1 trig t-delay send-trig send-reply  
latch gate pulse-count set-reset-ff peak  
running-min running-max stepper pulse-divider  
toggle-ff zero-crossing timer sweep phasor  
peak-follower pitch in-range fold clip wrap  
schmidt in-rect trapezoid most-changed least-change  
last-value