

Overtone Cheat Sheet (Overtone 0.4.0)

REPL helpers			
Documentation	odoc	ug-doc	find-ug find-ug-doc
Examples	examples	example	get-example
Shell	ls	grep	

Synths	
Design	definst defsynth
Examples	defexamples
CGens	defcgen
Control	ctl kill

Server	
Startup	boot-server boot-external-server connect-external-server
Shutdown	kill-server
Control	stopl
OSC Communication	snd rcv clear-msg-queue
Diagnostic	status connected? disconnected? server-status
Debug	sc-osc-log-on sc-osc-log-off sc-osc-log sc-debug-on sc-debug-off external-server-log

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

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

UGen Helper Constants	
Done Actions	NO-ACTION PAUSE FREE FREE-AND-BEFORE FREE-AND-AFTER FREE-AND-GROUP-BEFORE FREE-AND-GROUP-AFTER FREE-UPTO-THIS FREE-FROM-THIS-ON FREE-PAUSE-BEFORE FREE-PAUSE-AFTER FREE-AND-GROUP-BEFORE-DEEP FREE-AND-GROUP-AFTER-DEEP FREE-CHILDREN FREE-GROUP
FFT Windows	SINE HANN RECT
Lines	LINEAR LIN EXPONENTIAL EXP
Onset Analysis	POWER MAGSUM COMPLEX RCOMPLEX PHASE WPHASE MKL
Infinity	INFINITE INF

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 difsqsr sumsqr sqsrsum
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-l stereo-convolution2-l 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