## **Processing-core Cheat Sheet 1.0.0**

Color

Creating & Reading alpha blend-color blue brightness color color-mode green hue lerp-color red saturation

Loading & Displaying no-tint blend

Setting background background-float

background background-float
background-image background-int
fill fill-float fill-int no-fill
no-stroke stroke stroke-float

stroke-int

Data

Conversion binary hex unbinary unhex

**Environment** 

current-frame-rate cursor cursor-image focused frame-count frame-rate height no-cursor screen-height screen-width width

**Image** 

create-image

Loading & Displaying image image-mode load-image

mask-image request-image tint

tint-float tint-int

Pixels copy display-filter get-pixel

load-pixels pixels set-image
set-pixel update-pixels

Input

Files create-input create-input-raw load-bytes

load-strings

Keyboard key-code key-pressed? raw-key

Mouse mouse-button mouse-state mouse-x mouse-y

pmouse-x pmouse-y

Time & Date day hour millis minute month seconds year

Lights, Camera

Coordinates

Camera begin-camera camera end-camera frustum ortho perspective

print-camera print-projection
model-x model-y model-z screen-x

screen-y screen-z

Lights ambient-light directional-light

light-falloff light-specular lights no-lights normal point-light

spot-light

Material Properties ambient ambient-float ambient-int

emissive emissive-float emissive-int

shininess specular

Math

Calculation abs abs-float abs-int ceil constrain

 $\begin{array}{lll} {\tt constrain-float} & {\tt constrain-int} & {\tt dist} & {\tt exp} \\ {\tt lerp} & {\tt log} & {\tt mag} & {\tt map-range} & {\tt norm} & {\tt pow} & {\tt round} & {\tt sq} \\ \end{array}$ 

sqrt

Random noise noise-detail noise-seed random

random-seed

Trigonometry acos asin atan atan2 cos degrees radians

sin tan

Output

**Image** 

Files begin-raw begin-record create-output end-raw

end-record save save-frame

Rendering

create-graphics hint

Shape	
2D Primitives	arc ellipse line point quad rect triangle
3D Primitives	box sphere sphere-detail
Attributes	ellipse-mode no-smooth rect-mode smooth stroke-cap stroke-join stroke-weight
Curves	bezier bezier-detail bezier-point bezier-tangent curve curve-detail curve-point curve-tangent curve-tightness
Loading & Displaying	load-shape shape-mode
Vertex	begin-shape bezier-vertex curve-vertex end-shape texture texture-mode vertex

State

set-state! state

Structure

delay-frame exit no-loop pop-style push-style

redraw start-loop

**Transform** 

apply-matrix pop-matrix print-matrix push-matrix reset-matrix rotate rotate-x rotate-y rotate-z scale shear-x shear-y

translate

Utility Macros with-rotation with-translation

**Typography** 

Attributes text-align text-leading text-mode

text-size text-width

Loading & Displaying available-fonts create-font

font-available? load-font text
text-char text-font text-num

Metrics text-ascent text-descent

**Applet** 

Creation applet defapplet

Control applet-stop applet-start

applet-exit applet-close

Config Keywords :title :size
Draw Callback Keywords :setup :draw
Mouse Callback Keywords :mouse-pressed

:mouse-released

:mouse-moved :mouse-dragged
:mouse-entered :mouse-exited

:mouse-clicked

Keyboard Callback Keywords : key-pressed : key-released

:key-typed

Window Callback Keywords :focus-gained :focus-lost

Reflection

API Exploration doc-cats doc-fns doc-meths

Version processing-version

\$Revision: 1.0.0.0, \$Date: 4th March, 2012 Sam Aaron (sam.aaron gmail com)