Suica 2.0 for JavaScript

`<script src="suica.js"></script>`

BASIC OBJECTS

circle (center, size, color)
cone (center, size, color)
cube (center, size, color)
cylinder (center, size, color)
line (center/from, to, color)
point (center, size, color)
polygon (count, center, size, color)
prism (count, center, size, color)
pyramid (count, center, size, color)
sphere (center, size, color)
square (center, size, color)

BASIC PROPERTIES

.center = [.**x**, .**y**, .**z**]
.color = "colorname" / 0xFFFFFF / [r,g,b]$^{0...1}$
      = **rgb** (r,g,b)^{255} / **hsl** (h^{360},s^{100},l^{100})
.count = count / [count, count]
.image = drawing / "filename" / **image** ("filename")
.images = .count / [count, count]
.size = width / [.**width**, .**height**, .**depth**]
.spin = spinH / [.**spinH**, .**spinV**, .**spinT**, .**spinS**]
.visible / **.hidden** = true / yes / false / no
.wireframe = true / yes / false / no

SUICA

background (color)
oxyz (size, color)
demo (distance, altitude, speed)
orbit (distance, altitude, speed)
trackball (distance, altitude)
lookAt (from, to, up)
perspective (near, far, fov)
orthographic (near, far)
fullWindow ()
fullScreen ()
stereo (distance)
anaglyph (distance)
vr ()
capture (filename, time, fps, format, skipframes)
SUICA_VERSION, SUICA_DATE

MISC

its
obj.**clone**
obj.**style** ({name: value, ...})
allObjects ()
findPosition (event)
findObject (event, interactive)
findObject (event, [object, ...])
findObjects (event, interactive)
findObjects (event, [object, ...])
objectPosition (local)
screenPosition (local, global)
radians (degrees)
degrees (radians)
random (from, to)
random ([value,...])
randomIn (object)
randomOn (object)

ADVANCED OBJECTS

construct (expression, size, color)
convex (src^2, size, color)
group (object, object, ...)
    .add (object, object, ...)
model (filename, center, size)
model.save (filename, [object, object, ...])
surface (center, curve^3, count, size, color)
text3d (text, font^1, center, size, color)
tube (center, curve^2, radius, count, size, color)
extrude (shape, center, size, color)
    .radius .offset .count^{1,2}
spline (src^2, closed, interpolating)
    (src^5, param, param)
splane (src^3, closed^{1,2}, interpolating^{1,2})
    (src^4, param, param)

ADVANCED PROPERTIES

.closed = bool^1 / [bool, bool]^2
.curve^2 = [point, ...] / spline / f(u)
    ^{3} = [[point, ...], ...] / splane / f(u,v)
.expression = "string"   A+B, A-B, A*B, (...)
.font^1 = "fontname.json"
.interpolating = bool^1 / [bool, bool]^2
.src = [point, ... point]^2 / f(u)^5
    = [[point, ...], ... point, ...]]^3 / f(u,v)^4
.vertices
.threejs = THREE.Mesh
   .material = THREE.Material
   .geometry = THREE.BufferGeometry
.intersectData
.randomIn
.randomOn

EVENTS

onPointerEnter, **onPointerLeave**, **onPointerMove**,
onPointerDown, **onPointerUp**, **onClick**, **onTime**, **onLoad**

obj.**addEventListener** (eventName, eventHandler)
obj.**removeEventListener** (eventName)
obj.eventName = eventHandler

function pointerEventHandler (event) { ... }
function timeEventHandler (time, dTime) { ... }
function loadEventHandler (object) { ... }

proactive ()

DRAWINGS & SHAPES

drawing (width, height, color)
shape (count)
moveTo (x, y, x, y, ...)
lineTo (x, y, x, y, ...)
curveTo (m$_x$, m$_y$, x, y)
arc (x, y, radius, from, to, cw)
stroke (color, width, closed)
fill (color)
fillText (x, y, text, color, font)
      "bold 20px Courier"
clear (color)

shapes

LMS

scorm
 .**api**, .**score**, .**studentName**,.**getValue** (value) .**setValue** (name, value), .**derandomize** (seed)

Suica 2.0 for HTML

`<script src="suica.js"></script>`

BASIC OBJECTS

`<circle center size color ...>`
`<cone center size color ...>`
`<cube center size color ...>`
`<cylinder center size color ...>`
`<line center/from to color ...>`
`<point center size color ...>`
`<polygon count center size color ...>`
`<prism count center size color ...>`
`<pyramid count center size color ...>`
`<sphere center size color ...>`
`<square center size color ...>`

`<... id spin image images wireframe>`

ADVANCED OBJECTS

`<clone src[1] center size color ...>`
`<construct expression center size color>`
`<convex src[2] size color ...>`
`<group center size color ...> ... </group>`
`<model filename center size ...>`
`<surface center curve[3] count size color ...>`
`<text3d text font[1] center size color ...>`
`<tube center curve[2] radius count size color ...>`
`<extrude shape center size color radius offset count[1,2]>`
`<splane src[2,5] closed[1] interpolating[1]>`
`<splane src[3,4] closed[1,2] interpolating[1,2]>`

`<... id spin image images wireframe>`

BASIC PROPERTIES

`center = "x, y, z"`
`color = "colorname" / "0xFFFFFF", "r,g,b"[1]`
`      = "rgb (r,g,b)"[255] / "hsl (h[360],s[100],l[100])"`
`count = "count" / "count, count"`
`id = "string"`
`image = "drawing" / "filename"`
`images = "count" / "count, count"`
`size = "width" / "width, height, depth"`
`spin = "spinH" / "spinH, spinV, spinT, spinS"`
`visible / hidden = "bool"`
`wireframe = "bool"`

ADVANCED PROPERTIES

`closed = "bool"[1] / "bool, bool"[2]`
`curve[2] = "point; ..." / "spline" / "func(u)"`
`     [3] = "point; ... | ... " / "splane" / "func(u,v)"`
`expression = "string"        A+B, A-B, A*B, (...)`
`font[1] = "fontname.json"`
`interpolating = "bool"[1] / "bool, bool"[2]`
`src = "id"[1] / "point; ..."[2] / "func(u)"[5]`
`    = "point; ... | ..."[3] / "func(u,v)"[4]`

interpolating vs **approximating**
closed vs **open**, **cw** vs **ccw**

SUICA

`<suica width height background orientation proactive`
`    perspective orthographic fullWindow fullScreen stereo`
`    anaglyph vr> ... </suica>`
`<background color>`
`<oxyz size color>`
`<demo distance altitude speed>`
`<orbit id distance altitude speed>`
`<trackball id distance altitude>`
`<lookAt from to up>`
`<perspective near far fov>`
`<orthographic near far>`
`<fullWindow>`
`<fullScreen>`
`<stereo distance>`
`<anaglyph distance>`
`<vr>`
`<capture filename time fps format skipframes>`

EVENTS

onPointerEnter, **onPointerLeave**, **onPointerMove**,
onPointerDown, **onPointerUp**, **onClick**, **onTime**, **onLoad**

`<tag ... eventName="eventHandler">`

`<proactive>`

DRAWINGS & SHAPES

`<drawing size color>`
`<shape count>`
`<moveTo point>`
`<lineTo point>`
`<curveTo m point>`
`<arc point radius from to cw>`
`<stroke color width closed>`
`<fill color>`
`<fillText point text color font>`
`<clear color>`

shapes

`point="x, y" or x="x" y="y"`
`font="bold 20px Courier"`