
PatchXR

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HOW TO INSTALL

Currently Patch is under development and only available to our developers, testers and close friends. If you would like to know more about Patch and our upcoming game for Oculus Quest & Oculus Quest 2, Patchworld. Please visit our website and follow us on facebook and twitter.

2.1 Basic

2.1.1 elbow

Description

A 90 degree bend that simply passes the stream from input to output.

Inputs, output and other parts

input (stream input)

2.1.2 extension

Description

A cable to connect two streams together - like an extension cable.

Inputs, output and other parts

multibreak_ICO

s_IN Stream in

Grab Grab

2.1.3 get

Description

Sends stream input value when triggered.

Inputs, output and other parts

value Stream input value

out Jolt output value when triggered

btn_dbug

2.1.4 msg_in

Description

Receive an OSC message.

Inputs, output and other parts

e_out

text_IN

2.1.5 msg_out

Description

Send an OSC message.

Inputs, output and other parts

e_in_hot

s_IN

text_IN

2.1.6 output

Description

Sends sound signal from Patch to the currently active audio output.

Inputs, output and other parts

input Audio stream input.

pan Left/right pan.

spatialness Controls how much the output's position influences the output sound.

2.1.7 pass

Description

Passes an event from a jolt input to jolt output without modification.

Inputs, output and other parts

eR_hot Jolt input

Emitter Emits jolt

2.1.8 spacer

Description

Connect to streams away from each other.

Inputs, output and other parts

arm_handle

s_IN Stream input

2.1.9 split

Description

Splitter, transmits one input signal as two identical output signals - like a thru box or splitter box.

Inputs, output and other parts

BODY

s_IN_in Signal input

~OUT_0_Locator First signal output

~OUT_1_Locator Second signal output

2.1.10 stoe

Description

Send a jolt value each time the input stream changes. (max 90Hz by default)

Inputs, output and other parts

input (stream input) The stream to convert.

output (event output) Emits the value of the incoming stream as a jolt.

2.1.11 wireless_in

Description

Receive audio sent using the 'send' block.

Inputs, output and other parts

name

2.1.12 wireless_in_jolt

Description

Allows you to connect events without wire. Using name as address. “onload” address can be use to trigger when scene is loaded.

Inputs, output and other parts

e_0 IN

text_IN

e_out

2.1.13 wireless_out

Description

Send audio from one place in your patch to another. Receive sent audio using the ‘receive’ block.

Inputs, output and other parts

input The input signal to send.

name

2.1.14 wireless_out_jolt

Description

Allows you to connect events without wire. Using name as address.

Inputs, output and other parts

e_0 NAME

s_3 Freq

e_in_hot

text_IN

2.2 Deprecated

2.2.1 alu

Description

All logical operations, A block that allows users to do all arithmetic operations, with the oportunity to select the operations with a dial

Inputs, output and other parts

s_IN

eR_hot

Emmitter

Knob_Type

SetTypeReceiver

2.2.2 freeverb

Description

Inputs, output and other parts

s_IN_0_in

s_IN_1_roomsize

s_IN_2_feedback

s_IN_3_frezze

2.2.3 lowpass_old

Description

Low pass filter.

Inputs, output and other parts

s_IN_0

s_IN_1_cutoffFreq

2.2.4 ntor

Description

Does $(x + 1) * 0.5 * (B-A) + A$ so you can map $\{-1 \text{ to } 1\}$ values to $\{A \text{ to } B\}$ values.

Inputs, output and other parts

s_IN_value

s_IN_1_min

s_IN_2_max

2.2.5 ntou

Description

Does $(x + 1) * 0.5$ so you can map $\{-1 \text{ to } 1\}$ values to $\{0 \text{ to } 1\}$.

Inputs, output and other parts

s_IN

2.2.6 outstate

Description

Split optimized for feedback loops.

Inputs, output and other parts

s_IN

~OUT_feedback

'OUT_Set

2.2.7 rton

Description

Maps our input from {a to b} to {-1 to 1}

Inputs, output and other parts

s_IN_0_value

s_IN_1_min

s_IN_1_max

2.2.8 speaker_2D

Description

A non-spatialised sound source outputting directly to your physical speakers or headphones. Speakers translate the values of what you are building into audio. Use the second input to control panning (-1 to 1).

Inputs, output and other parts

s_IN Audio input

s_IN_pan Left/Right pan (-1 to 1)

2.2.9 speaker

Description

This is your sound source. Speakers translate the values of what you are building into audio.

Inputs, output and other parts

s_IN

2.2.10 uton

Description

Converts a unit to normal

u unit: 0 to 1

n: normal -1 to 1

r: range : any range

Inputs, output and other parts

s_IN

2.3 Experimental

2.3.1 ableton_link

Description**Inputs, output and other parts**

Sphere

knob

btn_debug

e_OUT

2.3.2 bar

Description**Inputs, output and other parts**

s_IN_0

s_IN_1

s_IN_2

s_IN_3

2.3.3 chain

Description**Inputs, output and other parts**

emitter

eR_main

2.3.4 digitalWaveguideString

Description

A string you can play by plucking it or hitting it with a marble.

Inputs, output and other parts

k_sustain

sustainEventReceiver

k_brightness

brightnessEventReceiver

Grab sphere VR

string

ChangeStringRadius

ChangeLength

2.3.5 frequency_analyzer

Description

Inputs, output and other parts

signal_input

trigger_analysis

max_freq

max_freq_amplitude

2.3.6 global_reverb

Description

Inputs, output and other parts

s_IN_1_decayTime

s_IN_2_absorb

s_IN_3_freeze

2.3.7 hammer

Description

Inputs, output and other parts

s_IN_0

s_IN_1

s_IN_2

2.3.8 karpus_strong_extended

Description

Inputs, output and other parts

s_IN_0

s_IN_1

s_IN_2

s_IN_3

s_IN_4

s_IN_5

s_IN_6

2.3.9 karpus_strong

Description

Inputs, output and other parts

s_IN_0

s_IN_1

s_IN_2

s_IN_3

2.3.10 linearladder

Description

Frequency bandpass filter.

Inputs, output and other parts

s_IN_0

s_IN_1

s_IN_2

2.3.11 list

Description

Select between multiple stream inputs.

Inputs, output and other parts

Emitter_000

Emitter_001

es_hot

s_IN(Clone)

2.3.12 pitchshifter

Description

Transpose sound in real time.

Inputs, output and other parts

s_IN_0

s_IN_1

2.3.13 plate

Description

plate filter : input, freq, hammerX, hammerY, freqDedLoss, freqInDepLoss

Inputs, output and other parts

s_IN_0

s_IN_1

s_IN_2

s_IN_3

s_IN_4

s_IN_5

2.3.14 pluck

Description

Inputs, output and other parts

s_IN_0

s_IN_1

s_IN_2

2.3.15 s_reader

Description

When 'IN gets an event, 'OUT fires the value of ~IN

Inputs, output and other parts

e_OUT 'OUT

s_IN ~IN

e_IN_HOT 'IN

e_IN_Hot

2.3.16 sample_info

Description

Inputs, output and other parts

trigger

GRAB (1)

sample_duration

num_beats

2.3.17 saturator

Description

Applies a simple tanh distortion/saturation to the incoming signal.

Inputs, output and other parts

s_IN

body

2.3.18 string

Description

Inputs, output and other parts

s_IN_0

s_IN_1

s_IN_2

s_IN_3

2.3.19 string_with_output

Description

A physical model of a string that can interact with marbles and your controller. Has a stream output to connect it to the rest of your patch.

Inputs, output and other parts

sustain (knob) Control how long the string will ring out after it's been excited.

brightness (knob) Controls how bright the string sound is

string (interactive) The string you can hit with

inharmonicity (interactive) Pull to change the radius of the string, making the sound more bell-like.

length_pitch (interactive) Pull/push to change the length of the string and thereby its pitch.

2.3.20 toggleboardcmd

Description

Editable array of toggle buttons.

Inputs, output and other parts

2.3.21 violin

Description

Violin physical model generator

Inputs, output and other parts

s_IN_0

s_IN_1

s_IN_2

s_IN_3

2.4 Interface

2.4.1 button

Description

Press the button - triggers a jolt of any input stream value when activated.

Inputs, output and other parts

s_IN Stream input; sets the value the button will send

Button Button

es_emitter Emits jolt of active value

e_I Jolt input

2.4.2 execute

Description

Execute console command when triggered. Using up to 4 inputs :0 :1 :2... as parameter. ex : bgcolor :1 :2 :3

Inputs, output and other parts

text_IN

esReciver

Button

s_IN

2.4.3 ghost

Description

Place a recorded controller and change the timing.

Inputs, output and other parts

k_offset Offset the animation in time.

b_offset Restart when pressed.

k_tempo Set the base tempo.

k_beat Set how many beats it lasts before looping.

Grab sphere VR

text_IN

k_startTrim

2.4.4 hapticcontrol

Description

Inputs, output and other parts

s_IN_Right

s_IN_Left

2.4.5 keyboard

Description

Tunable keyboard. Outputs midi note on the configured scale.

Inputs, output and other parts

e_OUT Output the midi note.

esReciver Note id.

knob Tune the keyboard. Maps “C” key to choosen note.

Event_Receiver Tune the keyboard. Maps “C” key to choosen note.

toggle_edit Switch between Play/Scale edit mode.

KEY_C_parent

KEY_C_Sharp_parent

KEY_D_parent

KEY_E_Flat_parent

KEY_E_parent

KEY_F_parent

KEY_F_Sharp_parent

KEY_G_parent

KEY_G_Sharp_parent

KEY_A_parent

KEY_B_Flat_parent

KEY_B_parent

Grab sphere VR

Grab sphere VR (1)

2.4.6 knob

Description

A knob.

Inputs, output and other parts

knobBody

ValveEventReciver

2.4.7 knobboard

Description

Editable array of knobs.

Inputs, output and other parts

btn_dbug

resize

OUT

WRITE

rows

columns

KnobB(Clone)

2.4.8 pad

Description

A pad you can hit; sends a trigger and the hit position on the pad.

Inputs, output and other parts

pad Pad

eReciver_toggleColor Jolt toggles color

emiter_vel Emits velocity value

emiter_x Emits x position of hit

emiter_y Emits y position of hit

Hit_Resize Hit resize

2.4.9 peppermill

Description

Inputs, output and other parts

ValveRoot

ValveEventReciver

valveHandle

Grab sphere VR

2.4.10 slider_3d

Description

A three-dimensional slider with x, y, and z outputs.

Inputs, output and other parts

hide_show (jolt input) Send a value of one to show the ball or zero to hide it.

extend_x (interactive) Pull to extend the x-axis.

extend_y (interactive) Pull to extend the x-axis.

extend_z (interactive) Pull to extend the z-axis.

ball (interactive) The ball whose position determines the output values.

output_x (stream output) Outputs the x position of the ball.

output_y (stream output) Outputs the y position of the ball.

output_z (stream output) Outputs the z position of the ball.

2.4.11 slider_db

Description

Inputs, output and other parts

Grab sphere VR

eR_set

PULL_extend

PULL_fader

2.4.12 slider

Description

You can change the value with your controller. Goes from 0 to 1.

Inputs, output and other parts

Grab sphere VR

eR_set

PULL_extend

PULL_fader

2.4.13 sliderboard

Description

Editable array of sliders.

Inputs, output and other parts

btn_debug

ResizeHandle

OUT

WRITE

s_IN_0_rows

s_IN_1_columns

Grab sphere VR

eR_set

PULL_extend

PULL_fader

2.4.14 toggle

Description

Set and send state as on or off, with indicator.

Inputs, output and other parts

TOGGLE_state_indicator

EventReceiver

2.4.15 toggleboard

Description

Editable, resizable array of toggles.

Inputs, output and other parts

s_IN_rows_0 Stream input - number of rows

s_IN_columns_1 Stream input - number of columns

resize Resize

OUT Out

WRITE Write

btn_debug

toggleboard_piece(Clone)

2.4.16 uknob

Description

a unit knob t

u unit: 0 to 1

Inputs, output and other parts

knobBody

2.5 Kinetic

2.5.1 anchor

Description

Teleports player when triggered.

Inputs, output and other parts

Cube

eR_in_HOT 1

2.5.2 block_distance

Description

Inputs, output and other parts

InteractiveSelector

distance output

2.5.3 block_lookat

Description

Inputs, output and other parts

InteractiveSelector

speed

2.5.4 block_relative_position

Description

Inputs, output and other parts

InteractiveSelector

e_OUT_x

e_OUT_y

e_OUT_z

2.5.5 block_set_position

Description

Inputs, output and other parts

InteractiveSelector

knob

2.5.6 funnel

Description

Inputs, output and other parts

Grab

2.5.7 handle

Description

Lets you attach object together. Click and drag from handle to the object.

Inputs, output and other parts

handle

2.5.8 marbleSlide

Description

A slide that will guide marbles with realistic physics.

Inputs, output and other parts

marbleSlide

Handle

2.5.9 marbleTube

Description

A tube with a funnel that will catch and guide marbles.

Inputs, output and other parts

marbleTube

Handle

2.5.10 octopus

Description

Lets you attach object together. Click and drag from octopus to the object.

Inputs, output and other parts

octopus

2.5.11 octopus_inv

Description**Inputs, output and other parts**

octopus_inv

btn_dbug

2.5.12 rail

Description

Attach other blocks to it use click and drag. Then changing its input value will translate them.

Inputs, output and other parts

length

position

octobody (1)

2.5.13 rotor

Description

Attach other blocks to it use click and drag. Then changing its input value will rotate them.

Inputs, output and other parts

rotation

grabber

2.6 Logic

2.6.1 bernoulli

Description

Inputs, output and other parts

s_IN

Emmitter_0

Emmitter_1

eR_hot

2.6.2 compare

Description

Compare an event with a stream value.

Inputs, output and other parts

Emitter

s_IN Stream input

esReciver_MainReciver

Knob_Type Knob type

SetTypeREciever

2.6.3 counter

Description

Inputs, output and other parts

eR_set

emitter

eR_icc

knob

btn_dbug

2.6.4 cyclecounter

Description

Inputs, output and other parts

cyclecounter

s_IN

emitter

eRh_add

eR_Set

2.6.5 gate

Description

Allows or disallows signal to pass based on a value

Inputs, output and other parts

Emitter

s_IN Signal input

er_HOT

2.6.6 if_else

Description

Compare two inputs; output one of the two outputs if condition is met.

Inputs, output and other parts

SetTypeReciever

MainReciver

TypeKnob

s_IN

Emitter_if

Emitter_else

2.6.7 nth

Description

Send only one event every N events it receives.

Inputs, output and other parts

s_IN

eR_Hot

eR_Set

emmitter

2.6.8 rangedfor

Description

Send N events, from zero to N, when triggered.

Inputs, output and other parts

eR_HOT

Emmitter

knob

btn_dbug

2.6.9 sequence

Description

Routes an incoming jolt to one of many outputs.

Inputs, output and other parts

output_select (stream input) Selects which output the incoming jolt will be routed to.

pull (interactive) Pull to set the number of output gates.

input The jolt which will be routed to the selected output.

output (jolt output) One of the possible outputs the input may be routed to.

2.6.10 sequence_loop

Description

Routes an incoming jolt to one of many outputs in a looping manner.

Inputs, output and other parts

input (jolt input) The jolt which will be routed to the currently selected output and proceed to the next output.

pull (interactive) Pull to set the number of output gates.

select_output (jolt input) Select which output should be used next time an input is received.

output (jolt output) One of the possible outputs the input may be routed to.

2.6.11 sequence_random

Description

Routes an incoming jolt to a random output.

Inputs, output and other parts

input (jolt input) The jolt which will be routed to one of the outputs at random.

pull (interactive) Pull to set the number of output gates.

output (jolt output) One of the possible outputs the input may be routed to.

2.6.12 watcher

Description

Every time the condition between \sim IN and \sim INb is met, 'OUT will fire the value of \sim IN. Hooking its output to its input IN will compare INb sample per sample.

Inputs, output and other parts

s_IN_0 \sim IN

s_IN_1 \sim INb

e_OUT 'OUT

SetTypeReciever

CONDITION

2.7 Math

2.7.1 abs

Description

Calculates absolute value of an incoming signal

Inputs, output and other parts

s_IN_0 a

s_IN Stream input

2.7.2 add

Description

Adds two streams together and outputs the result (a + b)

Inputs, output and other parts

a (stream input) The first stream

b (stream input) The second stream

s_IN_0

s_IN_1

2.7.3 add_jolt

Description

Calculates addition of two inputs.

Inputs, output and other parts

s_IN_1_cold Stream input

Emmitter Emits calculated value as jolt output

eR_hot Jolt input

2.7.4 clamp

Description

Clamps a value inside a specified range - meaning, input is truncated to minimum or maximum of out of range

Inputs, output and other parts

s_IN Stream input

s_IN_min Stream input minimum

s_IN_max Stream input maximum

2.7.5 constant

Description

Outputs various useful math constants: pi: the trigonimic constant. sr: sample rate sp: sample period e: Euler's constant bpm: tempo in bpm bp: beat period (sec. pr. beat).

Inputs, output and other parts

output (event output) Will send the value of the constant whenever it changes or a jolt is received.

constant (knob) Select which constant to output.

trigger (event input) Causes the output to send a jolt with the chosen constant value when a jolt is received.

2.7.6 cos

Description

Cosine of a

Inputs, output and other parts

s_IN_0 a

s_IN

2.7.7 divide

Description

a / b

Inputs, output and other parts

s_IN_0 a

s_IN_1 b

2.7.8 divide_jolt

Description

Calculates division of two inputs.

Inputs, output and other parts

eR_hot Jolt input

toggle Toggle

Emmitter Emits calculated value as jolt output

s_IN_1_cold Variant Stream input

2.7.9 floor

Description

Calculates floor of an input value, rounding to nearest integer

Inputs, output and other parts

eR_main Jolt input

emitter Emits calculated value as jolt output

2.7.10 floor_jolt

Description

Inputs, output and other parts

eR_main

emitter

2.7.11 from_db

Description

Converts a from dB to amplitude

Inputs, output and other parts

s_IN_0 a

s_IN

2.7.12 log

Description

Returns the logarithm of a to the base of b.

Inputs, output and other parts

s_IN_0 a

s_IN_1 b

2.7.13 logarithm_jolt

Description

Inputs, output and other parts

s_IN_1_cold Variant Stream input

eR_hot Jolt input

Emmiter Emits calculated value as jolt output

toggle Toggle

2.7.14 map

Description

Maps an input from {a to b} to {c to d}

Inputs, output and other parts

s_IN_value Stream input value

s_IN_oldMin Stream input map from minimum

s_IN_oldMax Stream input map from maximum

s_IN_NewMin Stream input map to minimum

s_IN_newMax Stream input map to maximum

2.7.15 max

Description

Returns the highest of the two incoming values.

Inputs, output and other parts

s_IN_0 a

s_IN_1 b

2.7.16 midi_to_freq

Description

Converts MIDI (0-127) notes to frequency (Hz).

Inputs, output and other parts

midi_note (stream input) To stream of midi note values (0-127) to convert. E.g. 69 is A5 (440Hz) and 60 is C4 (261.63Hz).

2.7.17 midi_to_freq_jolt

Description

Convert a MIDI note number (0-127) to frequency (Hz).

Inputs, output and other parts

Note input (jolt input) Expects a jolt with a value of MIDI note to convert.

Output (jolt output) The frequency of the note received through 'Note input'.

2.7.18 min

Description

Returns the lowest of the two incoming values.

Inputs, output and other parts

s_IN_0 a

s_IN_1 b

2.7.19 modulo

Description

Returns the remainder after dividing a by b.

Inputs, output and other parts

s_IN_0 a

s_IN_1 b

2.7.20 modulo_jolt

Description

Modulo

Inputs, output and other parts

s_IN_1_cold Variant

eR_hot

Emmitter

toggle

2.7.21 multiply

Description

Multiplies two streams and outputs the result ($a * b$)

Inputs, output and other parts

a (stream input) The first stream

b (stream input) The second stream

See also:

s_add

2.7.22 multiply_jolt

Description

Calculates multiplication of two inputs.

Inputs, output and other parts

s_IN Stream input

Emmitter Emits calculated value as jolt output

eR_hot Jolt input

2.7.23 power

Description

Calculates input of a stream to the power of second input

Inputs, output and other parts

s_IN_0 a

s_IN_1 b

2.7.24 power_jolt

Description

Calculates input to the power of second input

Inputs, output and other parts

s_IN_1_cold Variant Stream input

eR_hot Jolt input

toggle Toggle

Emmitter Emits calculated value as jolt output

2.7.25 previous

Description

Outputs the previous sample.

Inputs, output and other parts

s_IN Stream input

2.7.26 random

Description

Outputs a random decimal between 0 and (a).

Inputs, output and other parts

btn_debug push

knob value to send

eR_hot (a)

emitter

2.7.27 round

Description

Rounds incoming value to the nearest number

Inputs, output and other parts

s_IN_0 a

s_IN

2.7.28 rtou

Description

Maps an input from {a to b} to {0 to 1}

Inputs, output and other parts

s_IN_0_value Stream input value

s_IN_1_min Stream input minimum

s_IN_2_max Stream input maximum

2.7.29 sign

Description

Sign of incoming value: 1 if positive, -1 if negative.

Inputs, output and other parts

s_IN_0 a

s_IN

2.7.30 sin

Description

Sinusoid of a

Inputs, output and other parts

s_IN_0 a

s_IN

2.7.31 subtract

Description

a - b

Inputs, output and other parts

s_IN_0 a

s_IN_1 b

2.7.32 subtract_jolt

Description

Subtracts second input from first input.

Inputs, output and other parts

s_IN_1_cold Variant Stream input

eR_hot Jolt input

Emmitter Emits calculated value as jolt output

toggle Toggle

2.7.33 tanh

Description

Hyperbolic tangent of a (soft clipping at 1 and -1)

Inputs, output and other parts

s_IN_0 a

s_IN

2.7.34 to_db

Description

Converts a from amplitude to dB

Inputs, output and other parts

s_IN_0 a

s_IN

2.7.35 utor

Description

Converts a unit range to any any range.

Example: use a slider that goes from 0 to 1 in value, connect it to the top part of the utor and then use the other two inputs

u unit: 0 to 1

n: normal -1 to 1

r: range : any range

Inputs, output and other parts

Top: get a signal to drive the conversion

left: top

s_IN_0_value

s_IN_1_min

s_IN_2_max

2.8 Other

2.8.1 ball

Description

Inputs, output and other parts

ball

2.8.2 booper

Description

Inputs, output and other parts

Button

InteractiveDrag

emit_vel

emit_size

RecPlay Selector

Hit_Elevation

Hit_Azimuth

emit_BaseBlackPartDistance

emit_Pressure

emit_Hover

emit_CrossFade

emit_SmallDotPartsDistance

esReciver

2.8.3 box

Description

Inputs, output and other parts

bottom_intr

px_intr

nx_intr

pz_intr

2.8.4 cmd

Description

Inputs, output and other parts

esReciver

Button

2.8.5 coloroven

Description

Inputs, output and other parts

red

green

blue

body

2.8.6 controloutput

Description

Inputs, output and other parts

trigger_r

e_OUT (1)

e_OUT (2)

e_OUT (3)

e_OUT HeadDistance

e_OUT (4)

e_OUT (5)

e_OUT (6)

e_OUT (7)

e_OUT DistanceBetweenControllers

2.8.7 laserboard

Description

Inputs, output and other parts

emiiter_ON

emitter_OFF

s_IN_base

GRAB_ico

s_IN0

s_IN1

s_IN2

s_IN3

s_IN4

s_IN5

s_IN6

s_IN7

s_IN8

s_IN9

s_IN10

s_IN11

2.8.8 laserkey

Description

Inputs, output and other parts

EmitterNoteON

EmitterNoteOFF

s_IN

2.8.9 m_add

Description

Inputs, output and other parts

s_IN

2.8.10 m_booster

Description

Inputs, output and other parts

s_IN

2.8.11 m_compare

Description

Inputs, output and other parts

s_IN

2.8.12 m_path

Description

Inputs, output and other parts

EmitterV

emitter

emitterLenght

knobOrig

Collider

PathBodyExtendHandleHandelExtend_001

Grab

2.8.13 m_reader

Description

Inputs, output and other parts

emitter

2.8.14 m_spawner

Description

Inputs, output and other parts

ButonPivot

eR_triggerController

knob

2.8.15 m_switch

Description

Inputs, output and other parts

s_IN

2.8.16 marble

Description

Inputs, output and other parts

2.8.17 palette

Description

Used in VR to spawn block and access console.

Inputs, output and other parts

toggle_minimize

0

1

2

5

6

8

3

4

7

9

.

/

-

A

C

D

E

B

H

I

G

F

J

K

N

L

M

O

Q

P

R

T

U

V

S

W

Y

• -

CapsLock

X

Z

b

r

up

down

left

right

“

:

utor

ntor

rtor

s_mul

s_add

s_div

s_sub

clock

osc

noise

decay

freeverb

ladder

statevariable

connellyextender

split

spacer

elbow

keys_tab

s_tab

e_tab

io_tab

speaker

2.8.18 pass_in

Description

Inputs, output and other parts

eR_hot

Emitter

2.8.19 pass_out

Description

Inputs, output and other parts

eR_hot

Emitter

2.8.20 plot

Description

Inputs, output and other parts

s_IN

esReceiver

2.8.21 prop_platform

Description

Inputs, output and other parts

VR Grab Handle Named

2.8.22 scope

Description

Displays signal data.

Inputs, output and other parts

s_IN_0

s_IN_1_inWindow

toggle

2.8.23 wall

Description

A wall to bounce collision objects like marbles

Inputs, output and other parts

Grab

extensionHandle

2.9 Samples

2.9.1 sample

Description

Inputs, output and other parts

Grab_interactiveBase

Hit_interactiveBase

2.9.2 sample_player_cut

Description

Inputs, output and other parts

speed

buffer_index

GRAB (1)

play

end_of_sample

start_position

duration

2.9.3 sample_player

Description

Inputs, output and other parts

cursor

buffer_index

GRAB (1)

end_of_sample

num_beats

2.9.4 sample_recorder

Description

Inputs, output and other parts

input

cursor

Record_command

2.10 Synthesis

2.10.1 allpass2

Description

Second order allpass filter for implementing phasors and such.

Inputs, output and other parts

input The input signal.

frequency The 'break' frequency of the filter.

radius The radius/steepness of the filter.

2.10.2 decay

Description

A decay envelope - decays the input value (b) over duration to target value (a).

Inputs, output and other parts

s_IN_0 a

s_IN_1_halftime Duration (half-time)

ButonPivot push

Knob_Pivot value

knob

btn_debug

dec_set_state

2.10.3 envelope_ad

Description

A two-stage, Attack-Decay envelope

Inputs, output and other parts

s_IN_attack Attack

s_IN_decay Decay

e_OUT_hhitTop

e_OUT_hit_bottom

eR_note_on

eR_note_off

2.10.4 highpass

Description

12 dB/oct biquad high-pass filter.

Inputs, output and other parts

input Stream input

cutoff_freq Cutoff frequency

resonance Resonance

2.10.5 integrator

Description

A leaky integrator or slew limiter with separate constants for the rise and fall time.

Inputs, output and other parts

input The signal to integrate.

rise The integration constant to use when the signal is rising.

fall The integration constant to use when the signal is falling.

2.10.6 ladder

Description

A bandpass like filter, with freq and resonance settings.

Inputs, output and other parts

s_IN_0

s_IN_1_cutoff_freq

s_IN_2_resonance

2.10.7 limiter

Description

Applies brick wall limiting to the incoming signal, to control the amplitude.

Inputs, output and other parts

input

release_s

lookahead_delay_s

attack_s

threshold

2.10.8 lowpass

Description

12 dB/oct biquad low-pass filter.

Inputs, output and other parts

input Input

cutoff_freq Cutoff frequency

resonance Resonance

2.10.9 mic

Description

Outputs microphone pitch (note) and normalized DB level.

Inputs, output and other parts

e_OUT_note midi note

e_OUT_db normalized DB

note

DB

Grab sphere VR

Grab sphere VR (1)

2.10.10 microphone

Description

Outputs microphone audio signal as a stream.

Inputs, output and other parts

Grab sphere VR

2.10.11 nknob

Description

A stream constant value.

Inputs, output and other parts

knobBody

2.10.12 noise

Description

Generates white noise - a signal with uniform energy across the frequency spectrum.

Inputs, output and other parts

glass

2.10.13 onepole

Description

Inputs, output and other parts

s_IN_0

s_IN_1

2.10.14 oscillator

Description

An oscillator with four waveform modes: sinusoid, triangle, sawtooth & square. Frequency is set in Hz (cycles per second).

Inputs, output and other parts

s_IN freq

GLASS wave type

eR_Phase set phase

eR_waveType set wave type

reset_phase

set_wave

frequency

phase_offset

2.10.15 pink_noise

Description

Pink noise generator, outputting a signal with $1/f^a$ energy across the frequency spectrum.

Inputs, output and other parts

glass

2.10.16 pulse

Description

Outputs a pulse with a duration set by the duration input. A pulse is a stream with a value of one for a specified period and zero elsewhere.

Inputs, output and other parts

duration (stream input) The duration of the pulse. The default value 0.00003 corresponds to one sample.

trigger (button) Trigger a pulse.

2.10.17 reverb

Description

Adds reverberation to a stream using a feedback delay network algorithm.

Inputs, output and other parts

input (stream input) The stream to apply reverb to.

decay_time (stream input) How long it should take for the sound to die out (in seconds)

absorb (stream input) Controls how fast the high-frequency part of the sound decays.

mix (stream input) Controls the dry/wet mix of the output.

See also:

reverb_tank

2.10.18 reverb_tank

Description

Applies reverb to the incoming signal.

Inputs, output and other parts

input (stream input) The stream to apply reverb to.

decay_time (stream input) How long it should take for the sound to die out in seconds.

absorb (stream input) A stream value between zero and one that controls how fast the high frequencies die out.

mix (stream input) Controls the dry/wet mix of the output.

2.10.19 rms

Description

Inputs, output and other parts

s_IN_0

s_IN_1

2.10.20 sample_and_hold

Description

Stores the value of a signal when a clock or event is received.

Inputs, output and other parts

clock Clock

input Stream input

sample Sample

2.10.21 statevariable

Description

Inputs, output and other parts

s_IN_0

s_IN_1

s_IN_2

SetType

2.10.22 vel

Description

Outputs the delta between the current and the previous sample.

Inputs, output and other parts

s_IN

Grab sphere VR

2.10.23 wavefolder

Description

A wave shaper that looks for values out of [1 or -1] and mirrors the excess in the opposite direction.

Inputs, output and other parts

s_IN

body

2.11 Time

2.11.1 beat_time

Description

The progress of your beat. You can control tempo / stop / restart with timecontrol block.

Inputs, output and other parts

Sphere

e_OUT

2.11.2 clock

Description

The clock allows you to set an increase to your given value every second.

Inputs, output and other parts

s_IN (INa)

eR_seState set clock state

eR_setState

Sphere

2.11.3 delay

Description

Creates an audio-rate delay line with streams.

Inputs, output and other parts

input (stream input) Stream input

delay Delay time in seconds

2.11.4 delay_jolt

Description

Delay a jolt by some amount of time.

Inputs, output and other parts

input (jolt input) The jolt to delay.

speed_of_time (stream input) A multiplier for the delay constant.

delay_time (stream input) How much to delay the jolt.

output (jolt output) Sends out the same jolt as received through 'input', but delayed by the time set via the 'delay_time' stream input.

2.11.5 eggtimer

Description

The egg timer delays an event depending on the value of INa

Inputs, output and other parts

s_IN (INa) delay time (seconds)

eR_hot input

e_OUT

2.11.6 metronome

Description

Ticks off regular events at a specified interval.

Inputs, output and other parts

s_IN (INa) freq

eR_set Set phase

Emitter Emits events, with each tick having a value of 1

2.11.7 rhythm

Description

Outputs events at musical intervals. The master beat_time is used as the default clock, unless something is attached to the clock stream input. Also outputs a normalized stream value indicating how far along we are in the period.

Inputs, output and other parts

offset (knob) How many beats the output event is offset in time compared to the input clock.

period (knob) How many subdivisions there are pr. period. E.g. a value of 3 will cause an event to fire every third subdivision.

subdivision (knob) How many times to divide the beat when counting a period. E.g. a value of 2 will count two times every beat.

clock (stream input) Usually an increasing counter, counting the beats that determine when the period_begin should fire.

period_begin (event output) Emits an event whenever a new period starts.

Sphere

2.11.8 timecontrol

Description

Pause / Resume / speed up tempo affecting phasors.

Inputs, output and other parts

Grab sphere VR

Back_Button_

Pause_Button_

Skip_Button_Left

Skip_Button_Right

Forward_Button_End

tempo_knob

2.12 Venue

2.12.1 bg_nebula

Description

Background for the environment

write in the console:

spawn bg_nebula

Inputs, output and other parts

VR Grab Handle

2.12.2 venue_mountains

Description

Background for the environment

write in the console:

spawn bg_mountains

Inputs, output and other parts

VR Grab Handle

2.12.3 venue_spacestation

Description

Background for the environment

write in the console:

spawn bg_spacestation

Inputs, output and other parts

VR Grab Handle

2.13 Visual

2.13.1 camera

Description

Records the gameplay as a video file. Active cameras appear as the gameview. You can record or set cameras active either through the 2D desktop GUI or by pressing the buttons physically on the component in VR. Press the record/stop icon for recording, press the camera icon to set cameras active. Press the folder icon to open the saving destination, it is set to `\\C:\Users\XXX\Documents\PatchXR\`

Inputs, output and other parts

*** connect a button and press it to set cameras active

camera

2.13.2 hsvtorgb

Description

Inputs, output and other parts

sO_R

sO_G

sO_B

Hue

Saturation

Value

Grab sphere VR

2.13.3 image

Description

Inputs, output and other parts

MuX_ImgCorner_Msh

grab

esReciver

2.13.4 lightbulb

Description

Adds an HSV-colored light source to a scene.

Inputs, output and other parts

s_IN_h Hue

s_IN_s Saturation

s_IN_v Intensity

hue

saturation

value

2.13.5 pencil

Description

Allow you to draw in space, using a color, width of the line and lifetime.

Inputs, output and other parts

k_width Width of the line.

k_life Life time of the line.

k_HSV_H Color : Hue

k_HSV_S Color : Saturation

k_HSV_V Color : Brightness

2.13.6 sunlight

Description

Let you change color and sun orientation.

Inputs, output and other parts

s_IN_r Red amount

s_IN_g Green amount

s_IN_b Blue amount

s_IN_f Global intensity

hue

saturation

value

Grab sphere VR

2.13.7 trail_pencil

Description

Inputs, output and other parts

Width

Trail Life Time

Hue

Saturation

Brightness

2.13.8 txt

Description

Let you place floating text.

Inputs, output and other parts

text_IN

SUPERBLOCKS

blocks are...

EXAMPLES

example are...

VIDEOS

blocks are...

MISC

Misc blocks are...

GET STARTED

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- [search](#)

```
1 import antigravity_python_example_code
2
3 def main():
4     antigravity.fly()testetsets
```

```
1 import antigravity_python_example_code
2
3 def main():
4     antigravity.fly()
```

For more information about Patch, please see our [website](#).

FAQ

- What is Patch?

www.google.com What is this documentation for?

Other Resources