

Acousmodules

Synthesis Series - Fast Help

2022 / march

<http://acousmodules.free.fr>

note for Mac users:

due to the delay in 3rd party compilation modules, a number of plugins are still in an older version and will not have some features and can present a slightly different interface than those which are described in this document

Most of the Acousmodules plugins share some common graphics and user interface elements.

Some are obvious, others are less ...

But this means that once you are familiarized with a few plugins you can become very fluent with all of them!

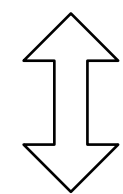
ctrl

cmd

all sliders, sliding datas, XY pads:

hold Ctrl/Cmd while dragging to get fine values

also, in general Right Click to MIDI Learn / UnLearn



sliding datas, waveforms, curves:

press and drag the mouse upward/downward to change the values

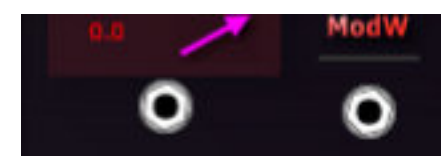


patch system:

- pick and drag a cable from one input to an output or the contrary

- hold Alt/ to pick and change a connection or to remove it

- in some plugins it can be difficult to pick a cable when several are connected to the same plug, in this case right-click on the cable and select "Remove"



About...

versioning: the plugins don't use versions numbers but their build date: right click on the background to show it

A number of plugins can share the same features.

These ones will then not be described in the dedicated pages.

Please see also the **Guide** and **Resources** pages on the **Acousmodules'** site.

Smoothing
Fast (4 samp)

performance option during automations:
None: use less CPU but may produce clicks
Fast: good balance, but clicks are possible
Smooth: no clicks risk but more CPU is used and possible buffers problems can arise in some hosts when a lot of channels are involved

common features 1: the "3D" spatial layout

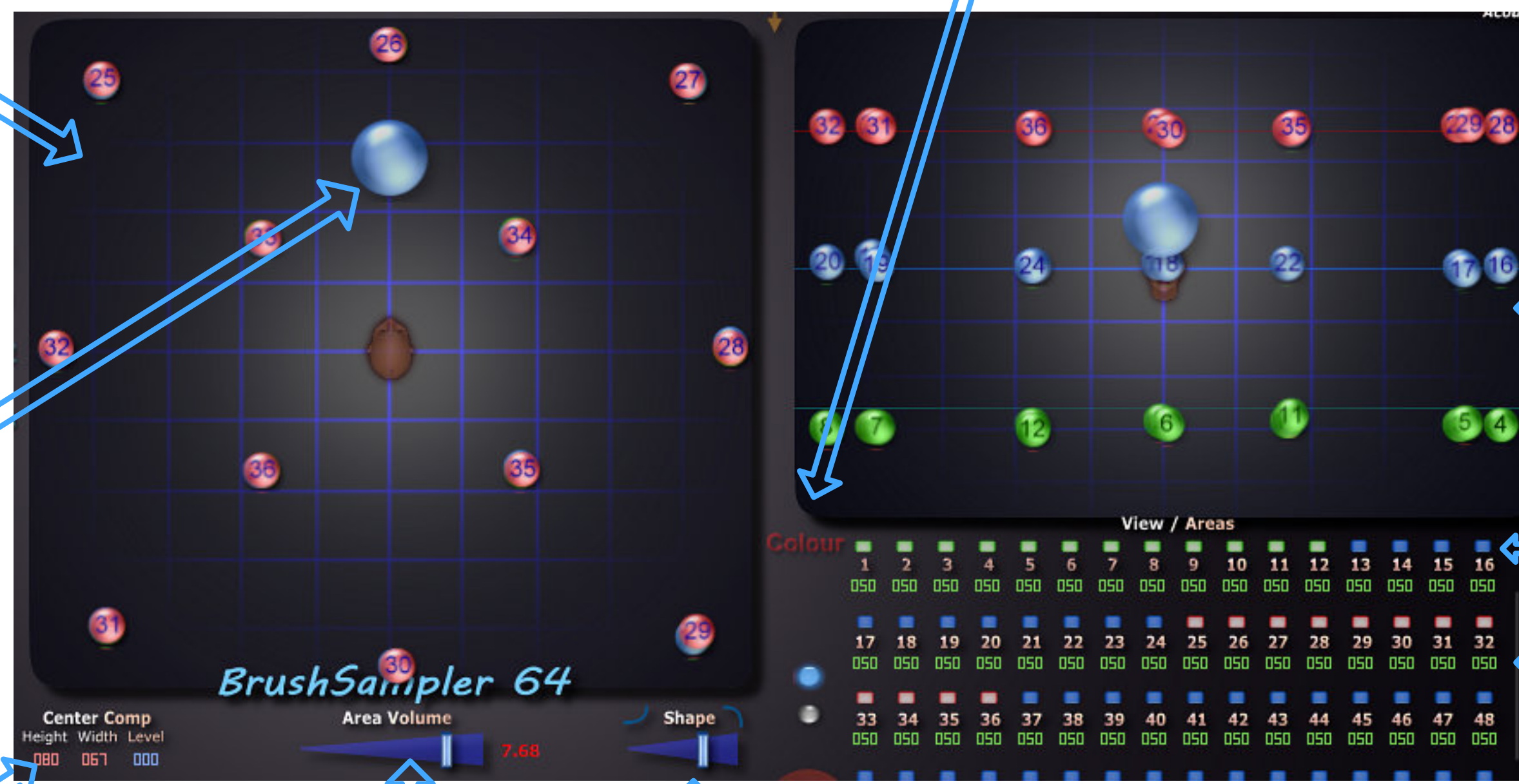
- Plugins:**
Aggregasynt
AnimaSynth
FocusSynth
MassSynth
MPESynth
SpatSynth
SynthXplorer
 +
SpatStrument

(Top View) place the numbered output symbols according to the loudspeakers spatial positions, it has not to be rigouros: the more they are visually equally spaced the better may be the result. The same for the right hand Front View (the horizontal positions are reflected from the master Top View)

Active mode: the little buttons activate and show the outputs
Colour mode: they switch the colour for each output (green, blue, red). The colours have no effect but can help to identify the height layers or other preferences.

symbolic position of the input(s), the real effect depends on its proximity to the surrounding output points and to their Area settings

(Front View) the view is compressed vertically but the distances are always based on a square, the thin coloured horizontal lines can help to place the points considering that the vertical density of speakers is generally lower than in the horizontal plane



periphonic layouts center compensation, its purpose is to spread the inputs energy on the surrounding points to fill :
Height: the vertical value of the center
Width: 100% means the full layout diameter
Level: how much gain is applied when the source goes to the center

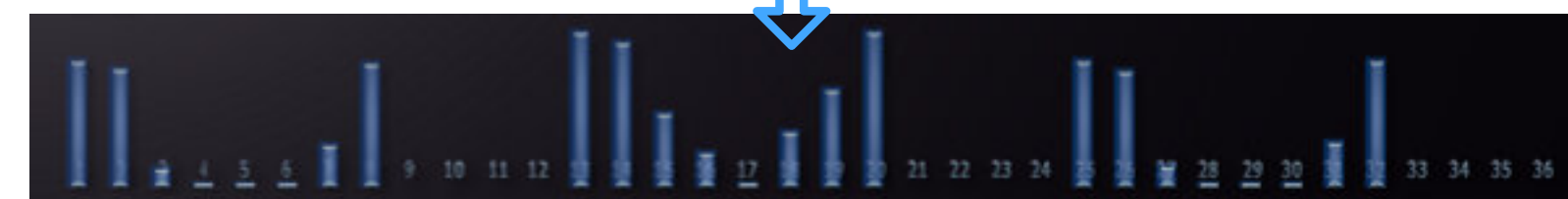
output Areas main setting: change the Area size for all the outputs at once, the resulting levels are NOT compensated

Areas shape: how progressive the areas are overlapping (or not), the recomanded value for a standard "pan law" is about the 2/3

outputs activation or colour selection

increase or reduce each output Area to compensate for graphical distances differences or to obtain special effects. In general it is recommended to try to organize the points in an equidistant manner before eventually changing these values.

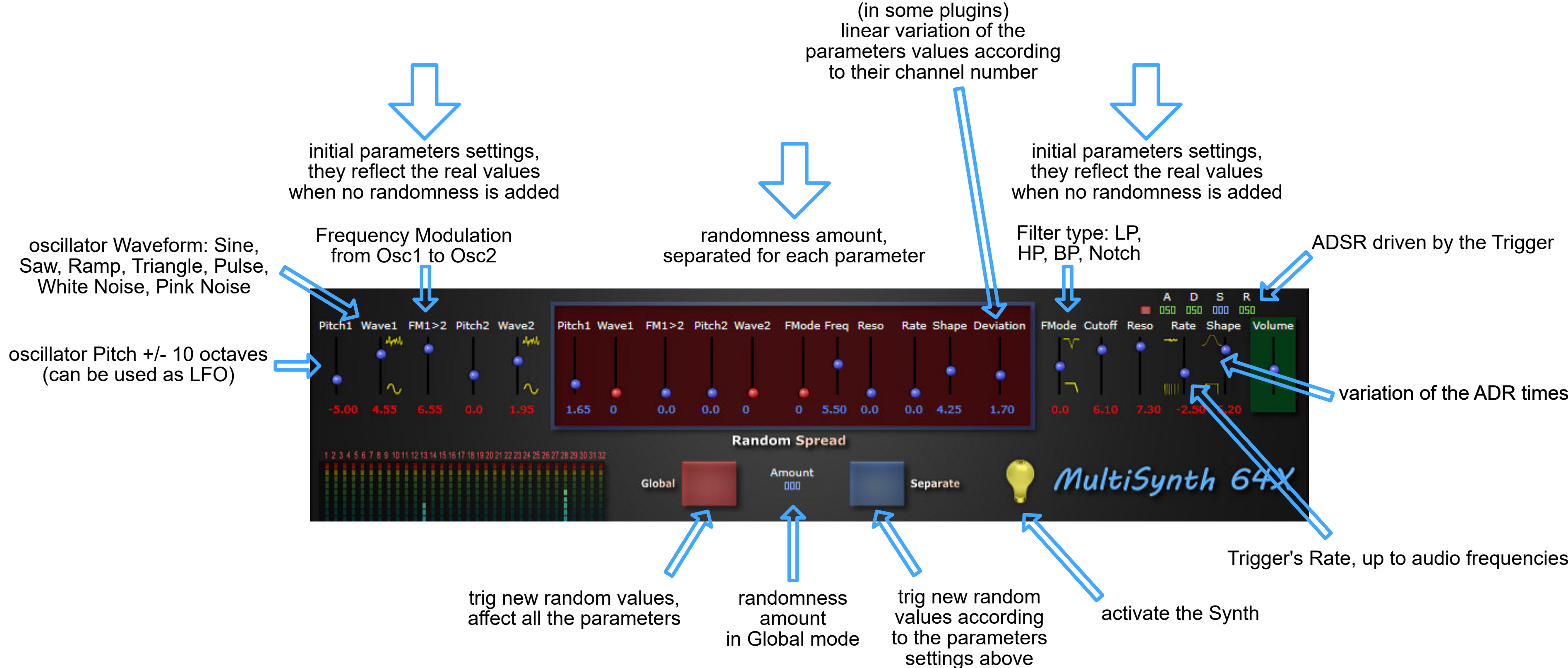
shows the levels values for each output according to the position of the first input, it can help to adjust the graphic distance between the outputs and the Area settings



common features 2: the "random synth" section

Plugins:

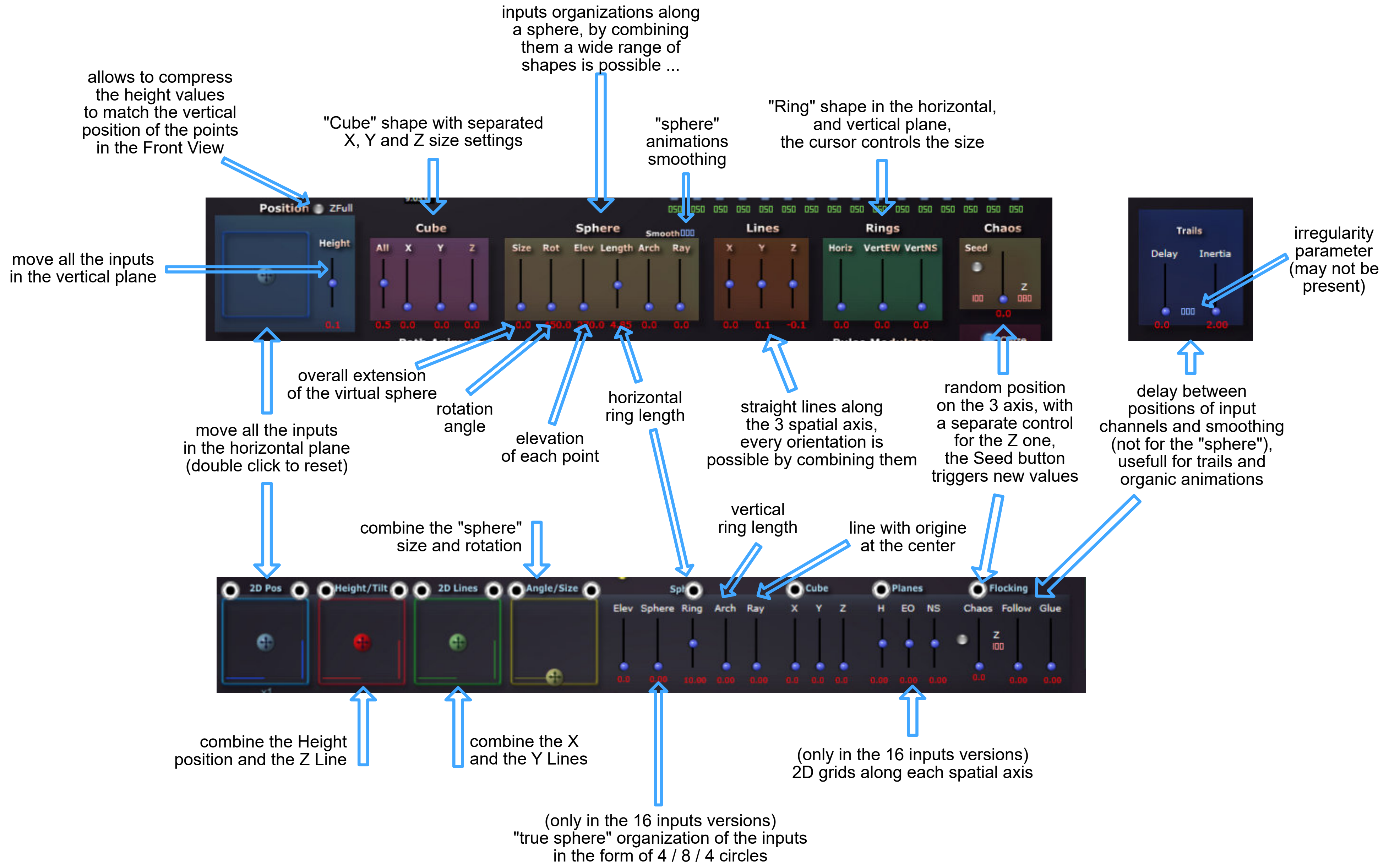
- Aggregasynth**
- BlenderSynth**
- MassSynth**
- MPESynth**
- MultiSynth**
- ScatterSynth**
- SynthXplorer**
- UniSynth**



common features 3: Multichannel groups and shapes

purpose: process 8 or 16 inputs together according to "Shapes" that can be freely distorted, mixed and modulated, work best with 2D or 3D meshed networks or grids speakers arrangements

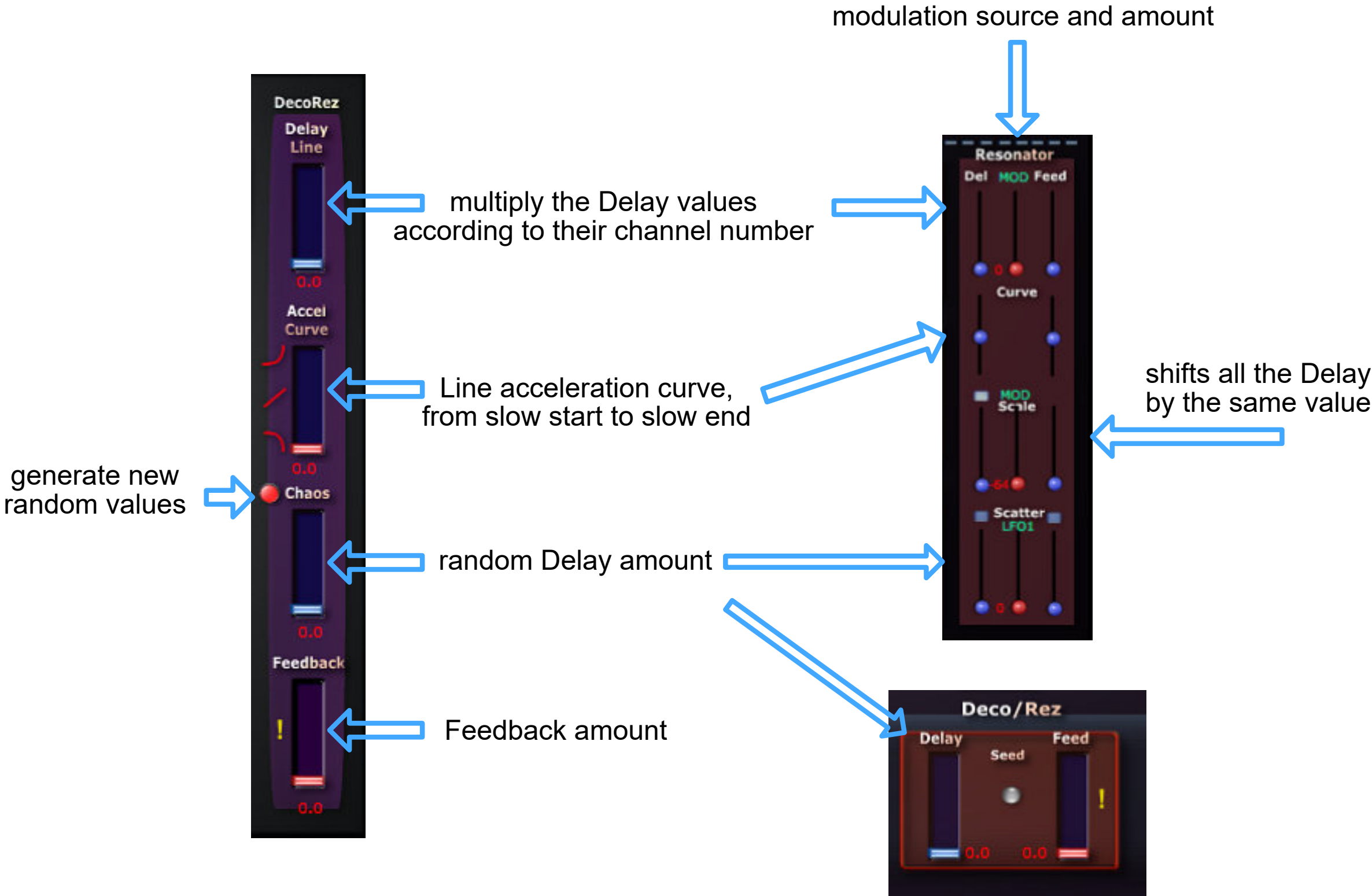
Plugins:
AggregaSynth
AnimaSynth
MassSynth
SynthXplorer



common features 4: the Delay / Resonator

Plugins:

- AnimaSynth
- BlenderSynth
- KaleidoSynth
- MassSynth
- MultiSynth
- SpatSynth
- SynthXplorer
- UniSynth



purpose: time decorelations, chorus and flanger like effects, and all sorts of multichannel harmonic trails and resonances

spatial configurations import / export

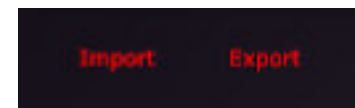
purpose: exchange the speakers (or the inputs) arrangements between plugins that use the same spatialization method and view

Since the beginning of 2022 most of the plugins that are based on a symbolic space view can import and export their channels arrangement.

Even if the settings which are specific to each plugin remain of course to be edited, this can result in a great gain of time ...

The files are simple text that can be eventually edited by hand, but the plugins and apps "SpaceEditor" are more appropriated ...

It may also be possible later to convert them and to import such configurations datas from and to spatialization softwares and plugins (already tested and working with GRMTools Spaces plugins).



There are three files formats:

- "Spat" type: two views "Top" and "Front", 36 (+18) and 64 channels versions
 - include: the channels X,Y,Z coordinates and the channels activations
 - does not include: channels Area values, channels colors
- "Layers" type: one Top view associated with 3 or 4 Height Layers (48 or 64 channels)
 - include: the channels X, Y coordinates for each Layer, the channels mappings
 - does not include: channels Area values, Layers Areas, Layers activations
- "Spaced" type: one false perspective view (mainly effects and utilities, 64 channels)
 - include: the channels visual position and the channels activations

The proper file extension is automatically selected in the OS file browser.

You can use the SpaceEditor 36-64 plugin (or application for Windows) to convert the files between these two formats, thus making actually 96 plugins able to exchange their spatial configurations!

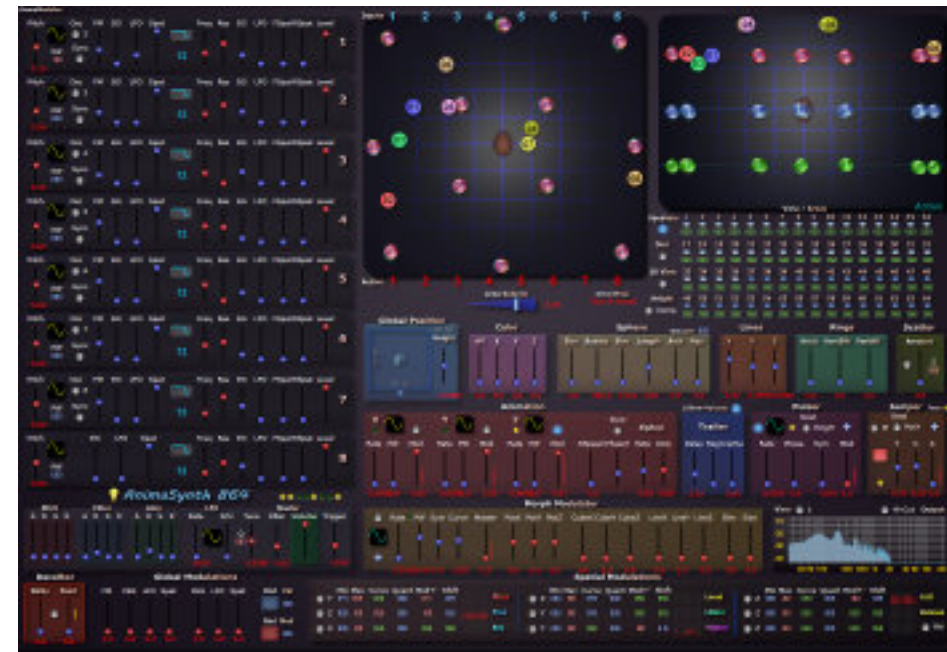
Please note that the following pages may not yet include the view and the description of the Import/Export buttons.

Compatibility list (blue = spatialization, green = effects, red = samplers, purple = synth, brown = utilities, in *italics* the plugins that don't support it yet):

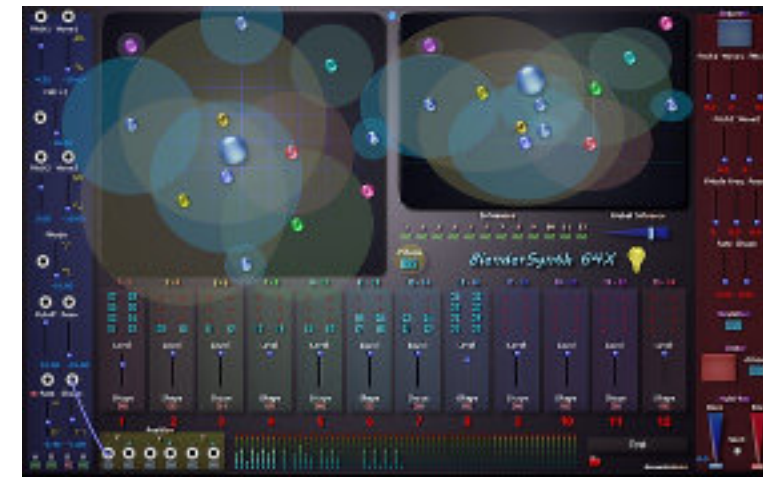
am36	am64	am13	am3d
AggregaSynth	AnimaPlayer 864	AnimaSpat 48L	SpacedAnalyzer 64
AnimaPlayer 836	AnimaSampler 864	AnimaSpat 848L	SpacedBass 60.4
AnimaSpat 836	AnimaSpat 864	AnimaPlayer 848	SpacedConvert 64
AnimaSynth 836	AnimaSpat 3D64	MassLayers 848	SpacedFilter 64
BrushSampler 18	AnimaSynth 864	SpaceConverter 3L	SpacedGain 64
ConcatPlayer 1636	BrushPlayer 464	SpatLayers 248, 264, 848	SpacedRoute-R
Distances 36	BrushSampler 64	SpatSampler 64L	SpacedRoute-S
FocusDelay 36	ConcatPlayer 1664	SpatStrument 48L	SpacedTest 64
FocusFilter 36	ConcatSampler 1664	SpatSynth 48L	SpacedView 64
FocussMass 36	DiffuseVerb 64		
FocusPlayer 36	Distances 64		
FocusRing 36	FocusDelay 64		
FocusSynth 36	FocusFilter 64		
FocusVerb 36	FocusGrains 64		
FocusVox 36	FocusMass 64		
MassModeler 1636	FocusPitch 64		
MassSynth 1636	FocusPlayer 64		
Room 3610	FocusRing 64		
SampleModeler 1636	FocusShifter 64		
ScaleMass 2436, 3236	FocusSynth 64		
SpaceBrush 18	FocusVerb 64		
SpaceConverter 36	MassGrains 1664		
SpaceEditor 36	MassModeler 1664		
Spat3D 218	MassSampler 1664		
Spat3D 236	MassSynth 1664		
Spat3D 836	MorphPlayer 864		
SpatDelay 1636	MorphSampler 864		
SpatHaas 136	MPESampler 64		
SpatMass 818	MPESpat 864		
SpatMass 1636	OctoMass 864		
SpatSteps 36	OctoMorph 64		
SpatStrument 18	PathSampler 64		
SpectraMass 36	Room 64		
SpectraShaper 1636	RoomSampler 64		
ZyliaMass 1936	SampleModeler 1664		
	ScaleMass 864, 1664, 3264		
	ScaleSampler 864		
	SpaceBrush 264		
	SpaceEditor 64		
	Spat3D 264, 864, 1664		
	SpatDelay 1664		
	SpatMass 864, 1664		
	SpatPath 64		
	SpatSteps 64		
	SpatStrument 64		
	SpatSynth3D 64		
	SpectraMass 1664		
	SpectraShaper 1664		
	StretchSampler 1664		
	VaporSampler 864		
	ZyliaMass 1964		
	ZoneDelay 64		
	ZoneFilter 64		
	ZonePitch 64		
	ZoneShaper 64		
	ZoneVerb 64		



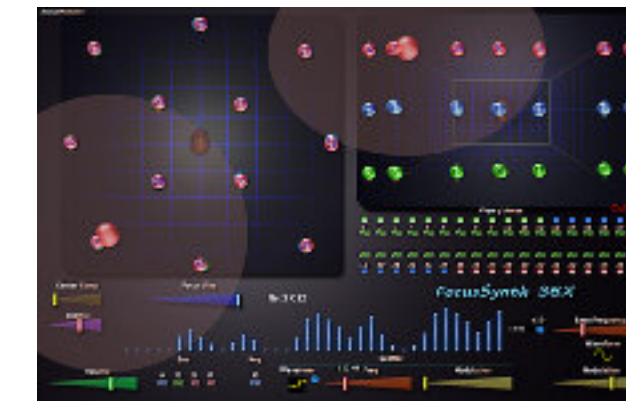
[AggregaSynth](#)



[AnimaSynth](#)



[BlenderSynth](#)



[FocusSynth](#)



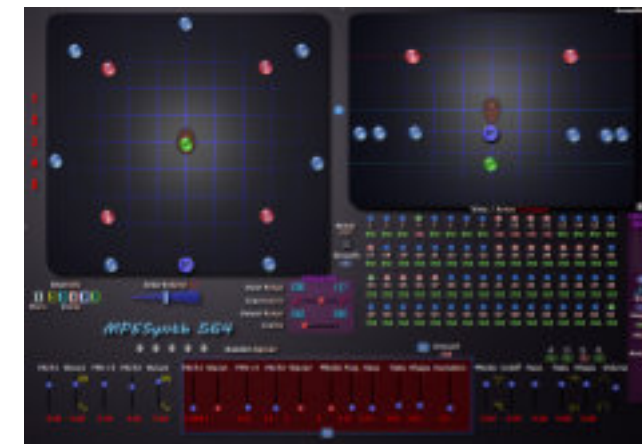
[KaleidoSynth](#)



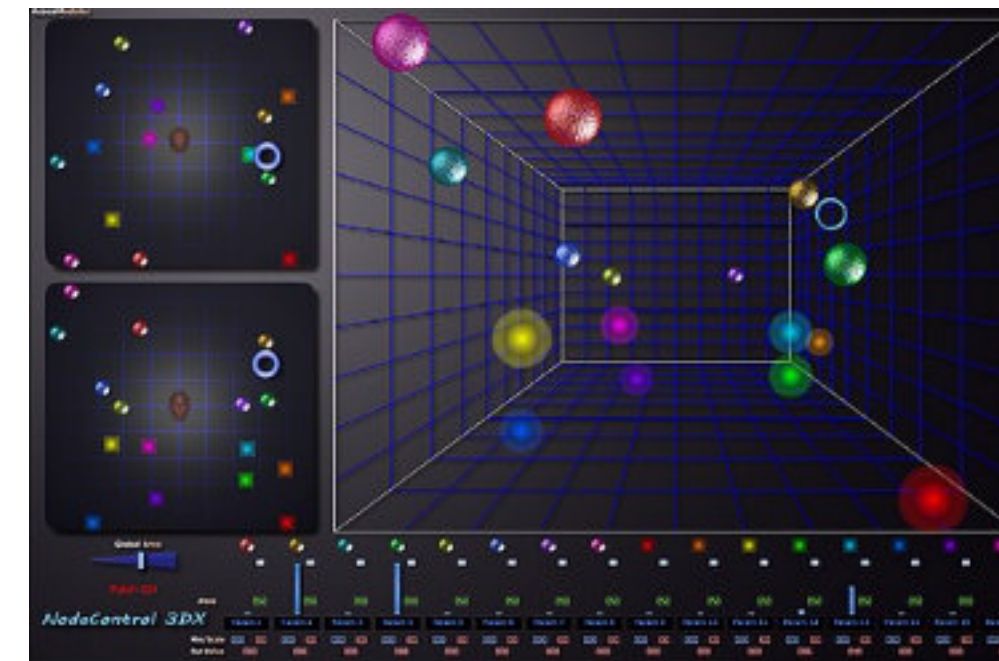
[MassSynth](#)



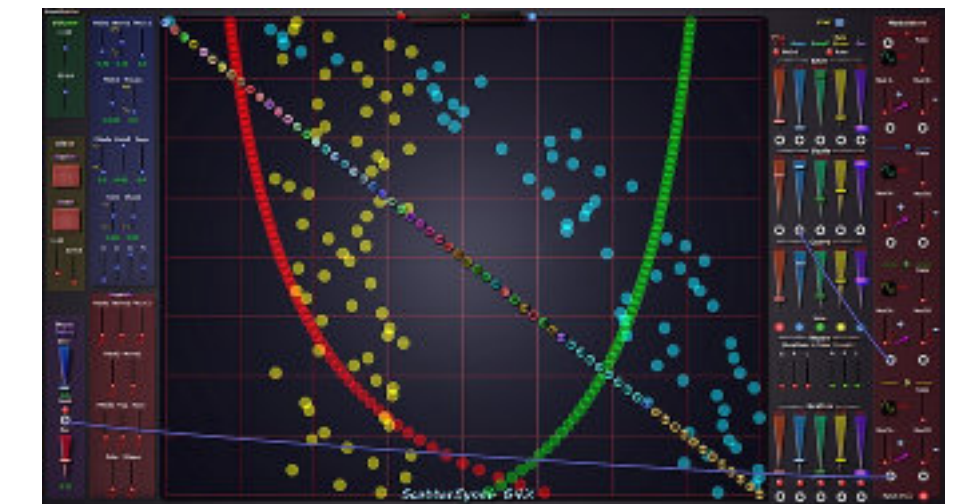
[MultiSynth](#)



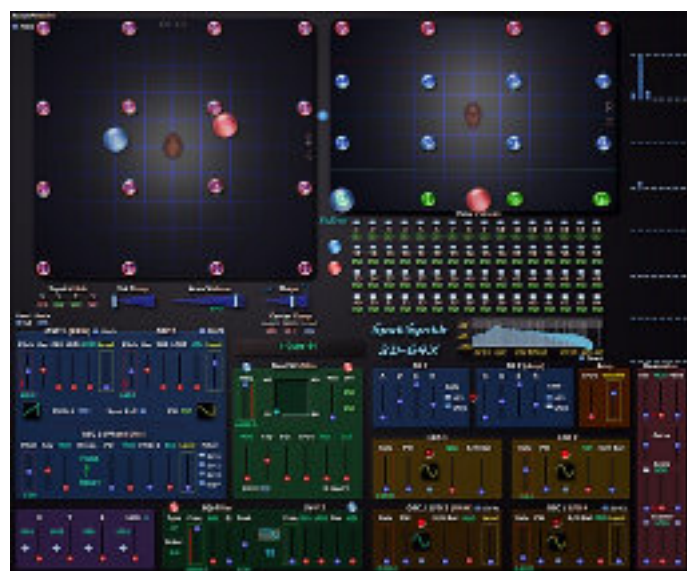
[MPESynth](#)



NodeSynth



[ScatterSynth](#)



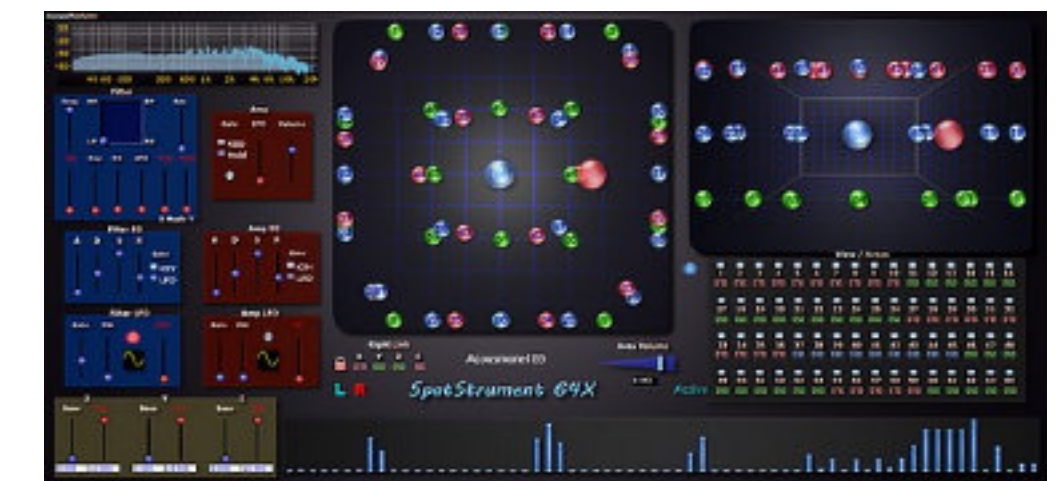
[SpatSynth](#)



[SynthXplorer](#)



[UniSynth](#)



[SpatStruments](#)

AggregaSynth 24-36

see page 3

the yellow dots represent the points of the real Shape according to the Position and Scale transformations

the small numbered color dots represent the Shape that has to be set manually, one by one

horizontal and vertical shift of the whole Shape, the resulting one is given by the yellow dots

see page 4

horizontal and vertical scaling of the whole Shape, bottom/left reverses the Shape

24 channels EQ

fader curve, to make it more precise in the Low or the High end

Peak setting for the Peak type

select the Filter type and the Filter slope, from 12 db/oct to 96/dB/oct (approximately)

AnimaSynth 64

pitch modulation sources and amount

each synth module can respond differently to the spatial position

synthesis module level

select the synthesis module to be spatialized in correspondence with the eight Shapes inputs

select the FM source

8 identical synthesis modules with cross modulations

synchro from the following oscillator

Filter type (LP, HP, BP, Notch)
Cutoff frequency and Resonance

cutoff modulation sources and amount:
Filter ADSR, LFO,
Freq and Res spatial modulations

global LFO with morphing between the Waveform and the Sample&Hold

Pitch, Filter and Amplitude envelopes, hard wired to the synthesis modules

global +/- 5 oct Pitch
Q = quantization
"100" means 1 octave

see page 6

affects all the modules without regard to their settings

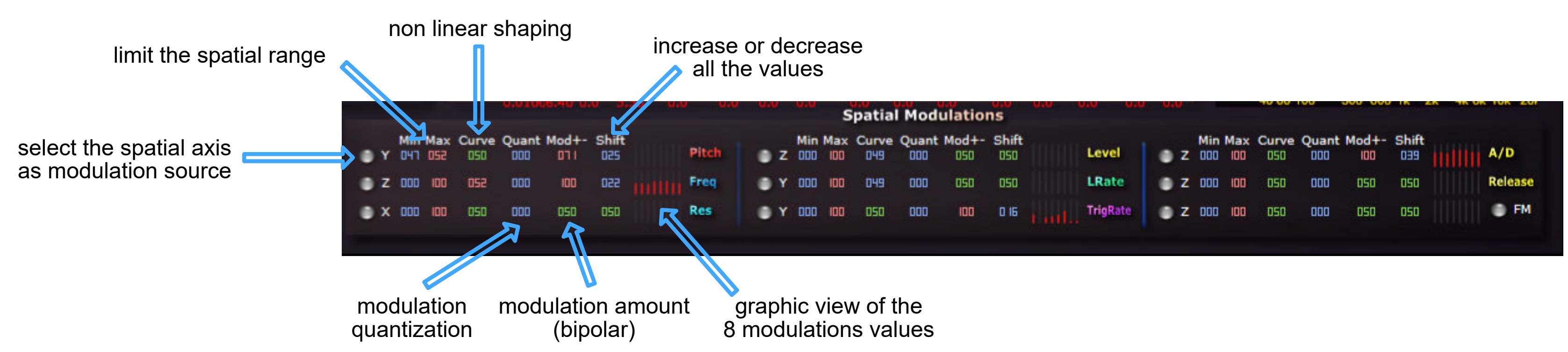
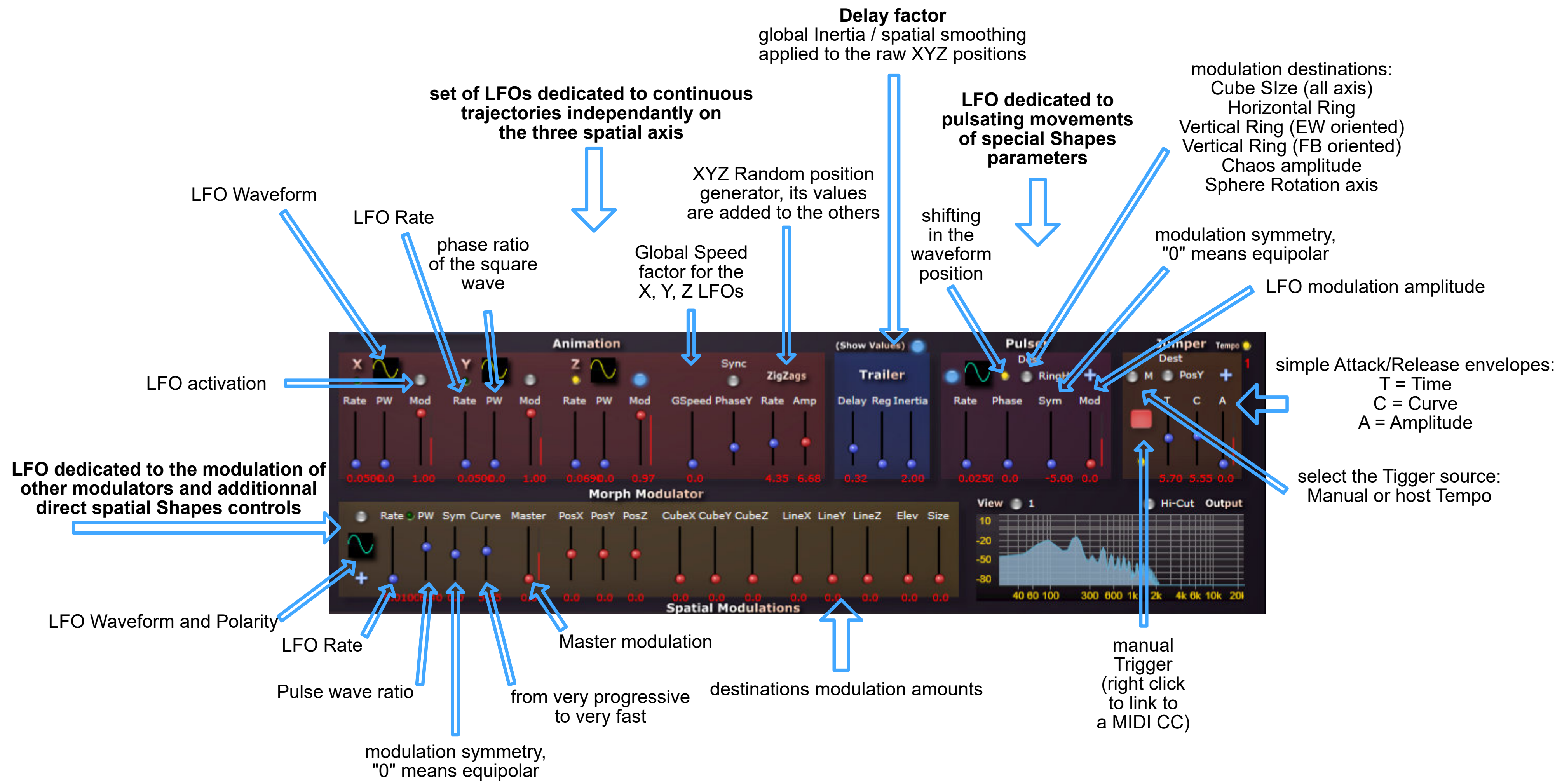
random values Triggers and amount

variable rate Trigger for the three envelopes

see page 3

see page 5

see next page



BlenderSynth 64

the Synths dots can be arbitrarily placed in a virtual 3D space

the proximity of the "blender" and the Synth dots determines their level shown by the size of their area

see page 3

see page 4

see page 4

set the influence Area for each Synth rack

dual voices Synth rack

select the outputs for the Synth racks, up to 8 among 64, the column is relative to the 2 voices

rack's Level

adjust the rack's influence curve

use the blender's position to modulate the parameters

activate the Synth rack

increase/decrease all the influence Areas

see page 6

AcousModules

The interface features a central 3D grid with numbered spheres (1-12) representing synth racks. To the left, there are two vertical control panels for 'Pitch1 Wave1' and 'Pitch2 Wave2', each with 'FM1>2' and 'FMode' parameters. Below these are 'Cutoff Reso' and 'Rate Shape' sliders. The bottom left shows 'Position' controls for X, Y, and Z axes. The bottom center has a row of 12 'Level' and 'Shape' sliders, with a 'Position' section below them. The bottom right contains 'Global Influence' and 'Volume' controls, along with 'Global Amount' and 'Multi-Rez' (Deco, Rez) parameters. A 'Seed' control is at the very bottom right. A 'Separate' button is located at the top right. The interface is titled 'BlenderSynth 64' in the center.

FocusSynth 64

center position of the "focus" area, its size determines the spatial range of the modulated values, the effect being at the maximum at its center and null outside

see page 3

extension of the Focus Area in the 3 dimensions, determines the number of channels that are modified

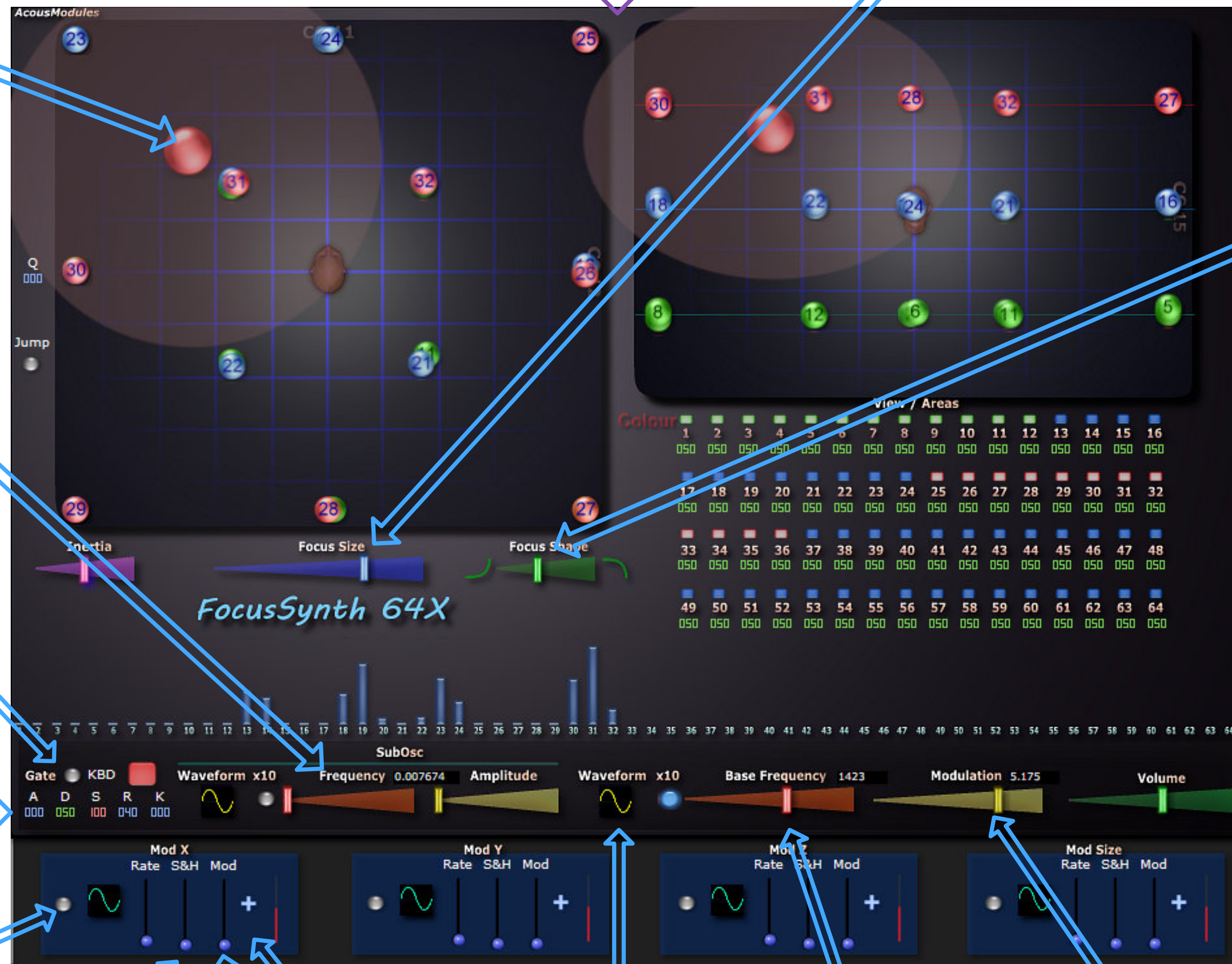
how the modulation values are distributed between the center and the circumference of the focus sphere

can be used as a LFO or for FM sound

select Manual Gate or Keyboard

amplitude ADSR with Times Key control

LFO activation



Waveform / Sample&Hold balance

modulation amount

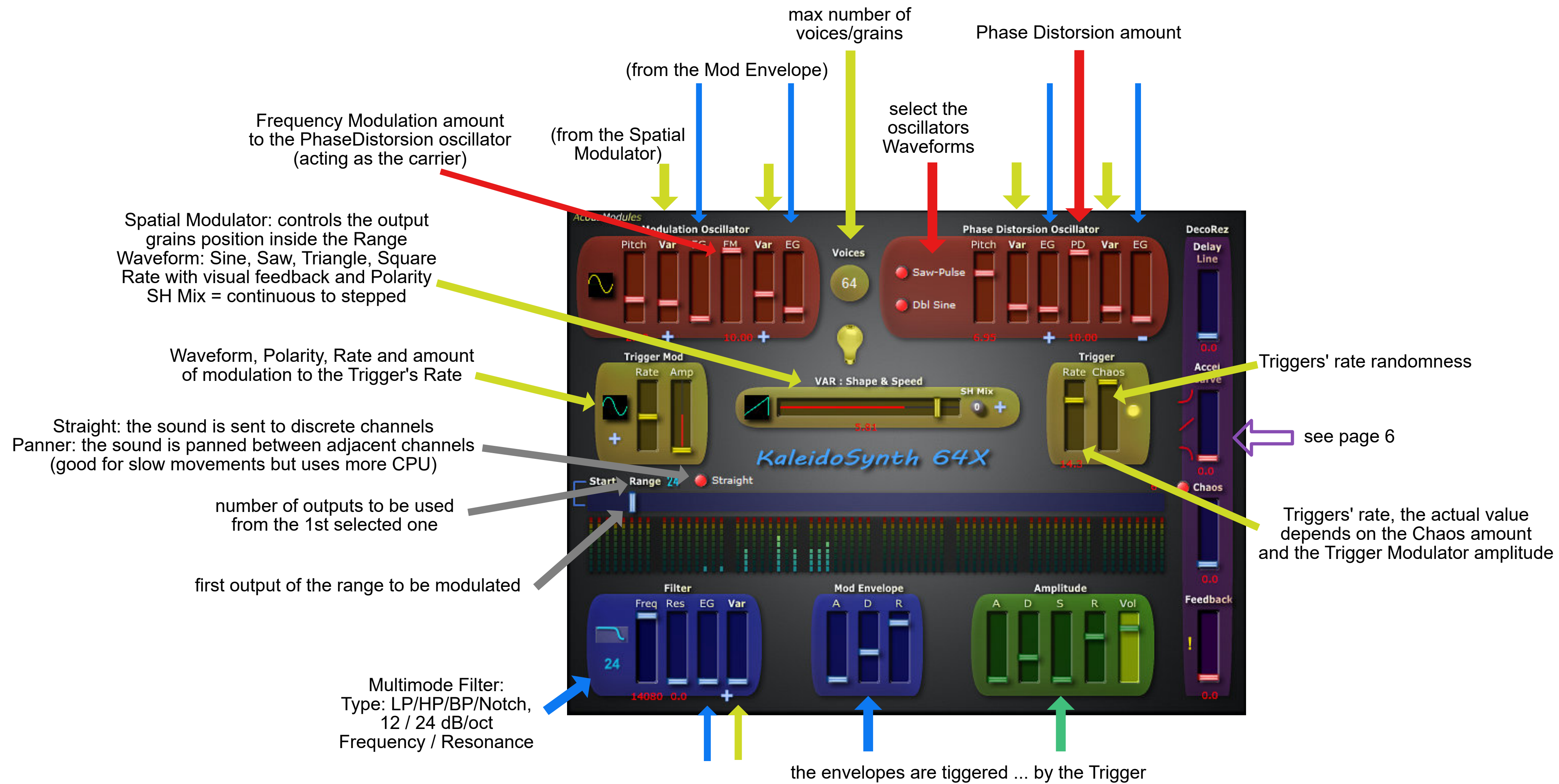
modulation polarity

oscillators' Waveform

oscillators' frequency outside the Focus Area

frequency amount control from the Focus Area

KaleidoSynth 64 & 128



MassSynth 1636 & 1664

see page 3

The screenshot displays the MassSynth software interface. At the top, there are two 3D spatial grids. The left grid shows 16 numbered spheres (01-16) distributed across a 10x10 grid. The right grid shows a similar distribution. Below the grids is a control panel with various modules:

- Position:** Includes a 'ZFull' toggle and a 'Sphere' section with sliders for Height (0.07), Diameter (0.00), Angle (128.88), Elevation (176.40), Ring (0.00), Arch (0.00), and Ray (0.00).
- Cube:** Sliders for X (7.25), Y (8.30), and Z (5.70).
- Lines:** Sliders for X (0.06), Y (0.06), and Z (0.06).
- Planes:** Sliders for H (0.00), EO (0.00), and NS (0.00).
- Flocking:** Sliders for Chaos (0.0), Follow (0.00), and Glue (0.00).
- Synthesis Parameters (14-16):** Includes sliders for Pitch1, Wave1, FM1>2, Pitch2, Wave2, FMode, Freq, Reso, Rate, and Shape. A 'Volume' slider is also present.
- Spatial Mod Sources:** A row of buttons for Pitch, FM, Cutoff, Rate, and Shape, each with a radio button for X, Y, or Z.
- Random Spread:** Includes a 'Global' button and an 'Amount' slider (0.58).
- Spatial Modulations:** Includes sliders for ModX, ModY, and ModZ.
- Modulators:** Includes sliders for Rate, PW, Sym, and Mod, with a 'Dest' dropdown menu.
- Deco/Rez:** Includes sliders for Delay and Seed.
- Frequency Cutter:** Includes a '50 Hz' slider and a 'Fast (4 samp)' button.

see page 5

see page 4

select the spatial axis to modulate the synthesis parameters

amount and polarity of the Spatial Modulations

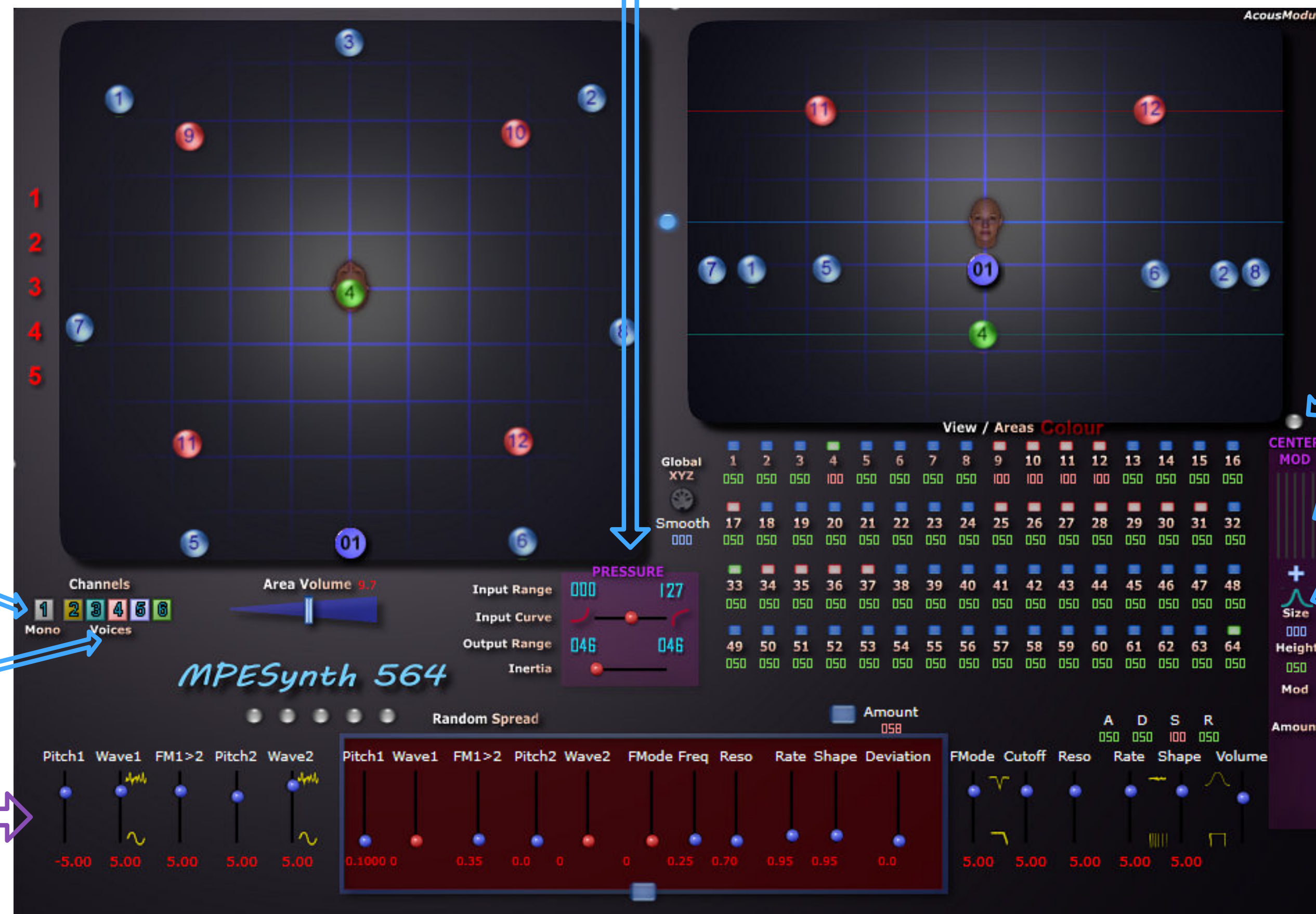
Spatial Shapes Modulators activation

Square wave ratio
balance of the bipolar modulation

see page 6

MPESynth 564

Pressure special settings:
 input Min / Max values to adapt the controller's sensitivity curve, from very progressive to very fast
 output Min / Max values to limit the elevation range
 inertia to smooth the values changes when moving



main MIDI channel for non MPE voices, it is generally set to 1 or 16 but a voice's channel can also be used for these modulations

MPE voice's channels, normally in following order from number 2 but can be different to combine several plugins

see page 4

see page 3

activate the Top and Front views of the Center area

graphic view of the five channels modulation value

Shape setting from very sharp to very wide

Size setting, 100 means the full space diameter

Height setting (not reported in the Front View) 0 means Bottom, 100 means Top

currently only available as Win32 VST2 version

MultiSynth 64

The image shows the MultiSynth 64 interface with several annotations:

- Filter settings:** "select the Filter type and the Filter slope, from 12 db/oct to 96/dB/oct (approximately)" points to the Filter Type and Order controls.
- EQ:** "32 channels EQ" points to the EQ frequency response graph.
- Peak settings:** "fader curve, to make it more precise in the Low or the High end" and "Peak setting for the Peak type" point to the Peak Q and Peak type controls.
- Channel distribution:** "shift all the Synths outputs with a number of channels" points to the Shift control. "trig the random outputs distribution" points to the Distribution control. "the number of channels where the Synths outputs will be distributed" points to the Range control, which is set to 64.
- Channel activation:** "activate the channels distribution, otherwise the synths outputs are sent to the corresponding outputs numberschannels" points to the Active checkbox.
- Modulation:** "LFO activation" points to the LFO activation buttons. "modulation polarity" points to the polarity controls for Mod A and Mod B. "modulation amount" points to the modulation amount sliders. "Waveform / Sample&Hold balance" points to the waveform selection controls.
- Other controls:** "see page 6" points to the Deco, Seed, and Rez controls. "see page 4" points to the Pitch and Waveform controls.

The interface includes a 32-channel EQ graph, a 32-channel channel distribution display, and four modulation modules (Mod A, B, C, D) with various parameters like Rate, S&H, and Mod.

NodeSynth One

soon ...

SpatSynth 3D 48L

The screenshot shows the SpatSynth 3D 48L interface with several key sections:

- Channel Select:** A grid of 16 channels (01-16) for each of the 3 layers (1, 2, 3).
- Areas Adjust:** A grid of 16 points (33-48) for each layer, with associated area size and shape controls.
- Areas Size:** Three trapezoidal area size sliders for each layer.
- Layers Mapping:** Controls for how the 3 layers are dispatched or grouped in height.
- Multi Resonator:** A section for DShift, MOD, Curve, Scale, and LFO1/2 settings.
- OSC 1 (RAW) and OSC 2:** Oscillator controls for pitch, key, LFO1, LFO2, and level.
- Dual SV-Filter:** Filter controls for HP, LP, RB, Res, and Div.
- OSC 3 (Phase Dist):** Oscillator controls for pitch, key, MOD, Waves, PD, and Filter.
- BQ-Filter and SV-F 3:** Filter and oscillator controls for Type, Freq, EG1, Q, Peak, EG2, LFO2, Res, and EG1.
- OSC / LFO 3 (RAW) and OSC / LFO 4:** Oscillator and LFO controls for Rate, PW, S/H Bal, MOD, and Level.

Annotations and their corresponding interface elements:

- select the output channels to be place in each Layer:** Points to the Channel Select grid.
- horizontal position of the two inputs:** Points to the horizontal axis of the Area Size sliders.
- Area size for each Layer:** Points to the Area Size sliders.
- inputs link: the Right one will follow the Left one according to the XYZ percentage and the Symmetry (Sym = 0 means inverse):** Points to the R Link, X, Y, Z, and Sym controls.
- elevation position of the two inputs relative to the Layers:** Points to the vertical axis of the Area Size sliders.
- output channels Areas fine setting, look at the left hand columns for the channel's number correspondence:** Points to the Areas Adjust grid.
- Area Shape for each Layer:** Points to the Areas Shape sliders.
- choose how the 3 Layers are dispatched or grouped in height, the "+" sign means that the channels are added to the same height level giving more horizontal points:** Points to the Layers Mapping controls.
- see page 6:** Points to the Multi Resonator section.
- activate the synth channels:** Points to the OSC 1 and OSC 2 sections.

➡ see page 20

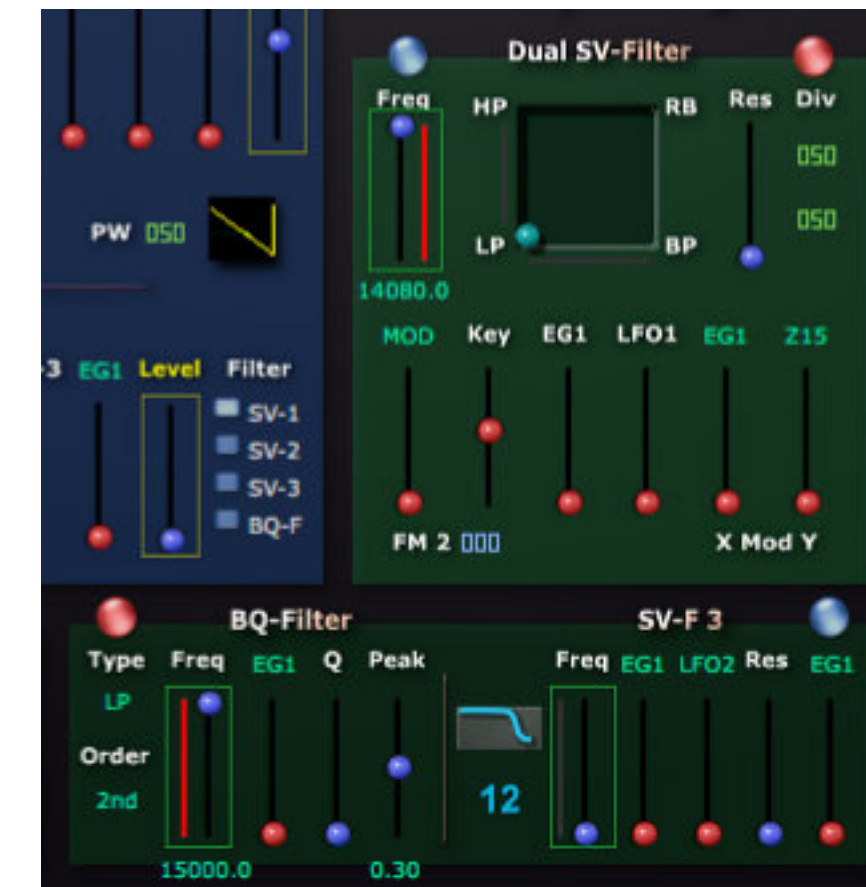
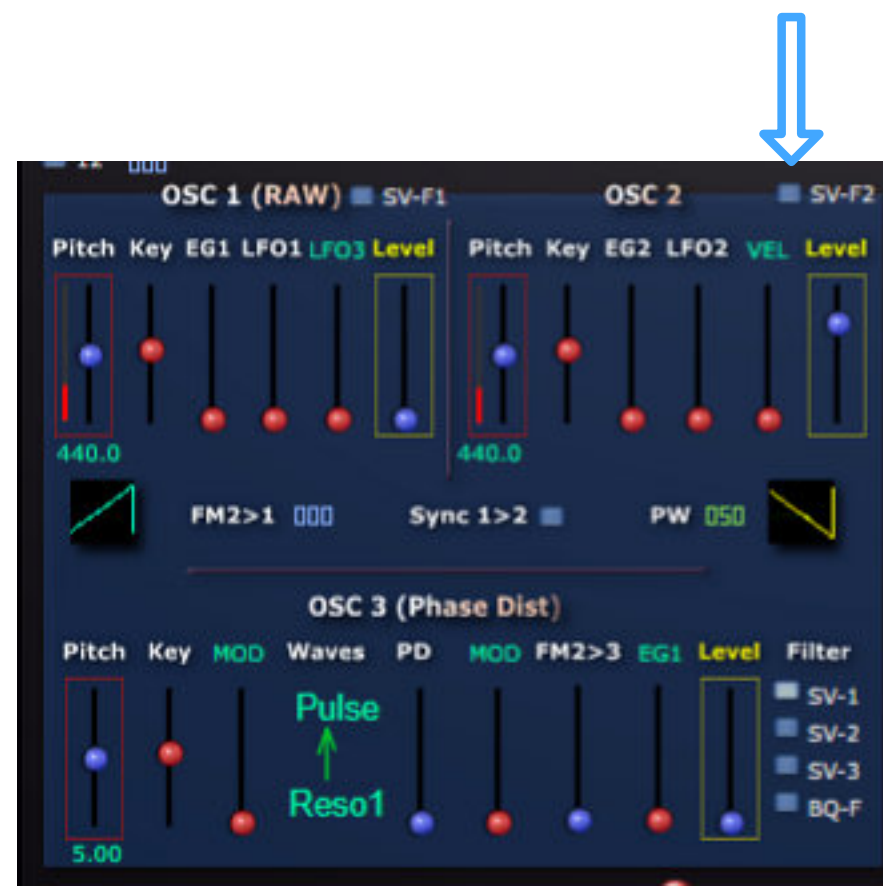
SpatSynth 3D32 & 3D-64

see page 3

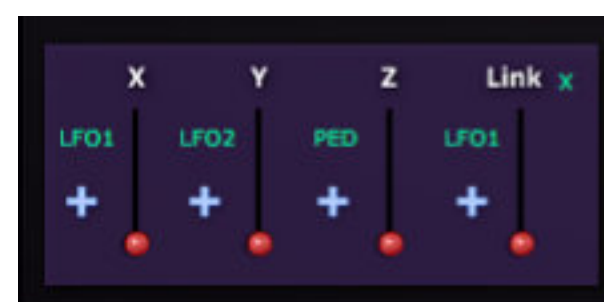
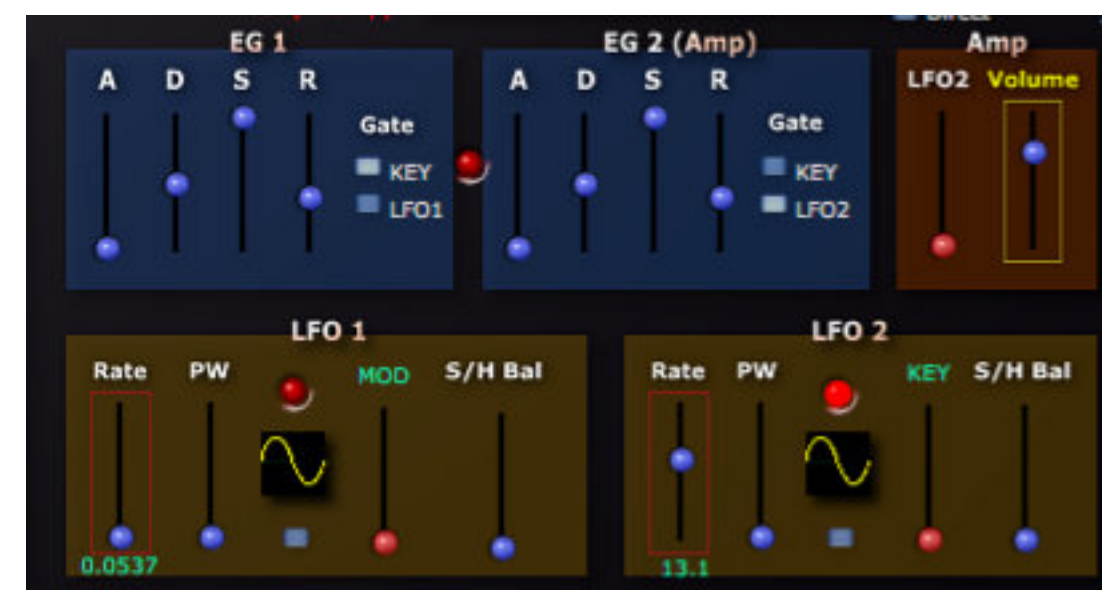
The screenshot displays the SpatSynth 3D-64 software interface. At the top, there are two 3D spatial grids. The left grid is labeled 'CC 11' and 'CC 12', and the right grid is labeled 'CC 15'. Below the grids is an 'Active' table with 64 columns and 4 rows of numerical values. The main interface is divided into several sections: 'Inputs Link' with X, Y, Z, S parameters; 'Vol Comp' and 'Area Volume' sliders; 'Shape' and 'Center Comp' sliders; 'OSC 1 (RAW)', 'OSC 2', and 'OSC 3 (Phase Dist)' modules with various frequency and level controls; 'Dual SV-Filter' and 'BQ-Filter' modules; 'EG 1', 'EG 2 (Amp)', and 'LFO 1', 'LFO 2' modules; 'Amp' and 'Resonator' modules; and 'OSC / LFO 3 (RAW)' and 'OSC / LFO 4' modules. A spectrum analyzer is visible on the right side of the interface.

see page 6

see next page



to be continued ...



SynthXplorer 328

the numbered balls represent the "microphones" that are sent to the plugin's outputs

moves all the balls at once

see page 3

select the outputs and adjust their Area

the small dots represent the synth modules they can be placed arbitrarily

see page 5

see page 4

see page 6

The screenshot displays the SynthXplorer 328 interface. It features two main grid areas at the top for placing and moving numbered balls (01-32) representing 'microphones'. Below these are various control panels for different synth modules: 'Cube' (All, X, Y, Z), 'Sphere' (Size, Rot, Elev, Length, Arch, Ray), 'Lines' (X, Y, Z), 'Rings' (Horiz, VertEW, VertNS), 'Chaos' (Seed, Z), and 'Trails' (Delay, Inertia). A central section shows 'Active' channels 1-32 with a 'Random Spread' button and various parameters like Pitch1, Wave1, FM1>2, Pitch2, Wave2, FMode, Freq, Reso, Rate, Shape, Deviation, FMode, Cutoff, Reso, Rate, Shape, and Volume. At the bottom, there are 'Global' and 'Separate' sections with 'Amount' sliders, a 'DecoRez' section with a 'Hi-Cut' filter, and a frequency spectrum analyzer showing a spectrum from 30 to 20k Hz.

UniSynth 64

The image shows the UniSynth 64 software interface with several annotations and arrows pointing to specific controls:

- activate the 64 Delay lines, otherwise the 1st channel is used**: Points to the **Delay Line** control in the **AcousModules** section.
- shift all the Synths outputs with a number of channels**: Points to the **Shift** control.
- trig the random outputs distribution**: Points to the **Distribute** control.
- the number of channels where the Delay outputs will be distributed**: Points to the **Range** control.
- activate the channels distribution, otherwise the synths outputs are sent to the corresponding outputs numberschannels**: Points to the **Active** checkbox.
- see page 6**: Points to the **Process** button.
- see page 4**: Points to the **Pitch1** control.
- LFO activation**: Points to the **Mod A** **Rate** control.
- Waveform / Sample&Hold balance**: Points to the **Mod A** **S&H** control.
- modulation polarity**: Points to the **Mod A** **Mod** control.
- modulation amount**: Points to the **Mod A** **Rate** control.

The interface includes sections for **AcousModules** (Delay Line, Acceleration, Chaos, Feedback), **UniSynth 64** (Hi-Cut, Random Spread, Transition), **Shift**, **Distribute**, **Range**, **Volume**, and four modulation modules (**Mod A**, **Mod B**, **Mod C**, **Mod D**) with parameters like **Rate**, **S&H**, and **Mod**.

the *SpatStruments* don't produce any sound,
they are intended to add spatial modulations
to mono/stereo hardware or software
synthesizers and samplers while sharing
at least the notes triggering and some MIDI controls

SpatStrument 48L

The screenshot shows the SpatStrument 48L interface with several key sections:

- AcousModules:** A frequency response graph at the top left.
- Filter:** Controls for Filter modes (HP, LP, BP, RB) and various parameters like Freq, Res, and X Mode Y.
- Amp:** Controls for Gate, LFO, and Volume.
- Filter EG & Amp EG:** Envelope Generator controls for Filter and Amp.
- Filter LFO & Amp LFO:** Low-Frequency Oscillator controls for Filter and Amp.
- Channel Select:** A table for selecting output channels for each of the 16 layers.

Layer	Channel 1	Channel 2	Channel 3
1	01	17	33
2	02	18	34
3	03	19	35
4	04	20	36
5	05	21	37
6	06	22	38
7	07	23	39
8	08	24	40
9	09	25	41
10	10	26	42
11	11	27	43
12	12	28	44
13	13	29	45
14	14	30	46
15	15	31	47
16	16	32	48
- Areas Size & Shape:** Controls for adjusting the size and shape of the 3D areas.
- Center Comp (Level/Area):** A control for center compensation.
- Areas Adjust:** A grid for fine-tuning output channels.
- Master Area:** A control for the master area.
- Inputs:** Controls for L (Left) and R (Right) inputs.
- R Link:** A control for the right link.
- Layers Mapping:** A control for mapping layers to different heights.
- Net 3 X 12:** A control for the network configuration.

Annotations and their corresponding interface elements:

- Filter modes merging:** Points to the Filter section.
- select the output channels to be place in each Layer:** Points to the Channel Select table.
- horizontal position of the two inputs:** Points to the blue and red spheres on the grid.
- elevation position of the two inputs relative to the Layers:** Points to the vertical position of the spheres.
- output channels Areas fine setting, look at the left hand columns for the channel's number correspondence:** Points to the Areas Adjust table.
- value and modulation source for the 3axis spatial position:** Points to the X, Y, and Z base controls.
- Area size for each Layer:** Points to the Areas Size control.
- Area Shape for each Layer:** Points to the Areas Shape control.
- dual input Link mode:** Points to the R Link control.
- choose how the 3 Layers are dispatched or grouped in height, the "+" sign means that the channels are added to the same height level giving more horizontal points:** Points to the Layers Mapping control.

SpatStrument 218 & 264

see page 3



Filter

Freq HP RB Res

LP BP

VEL Key EG LFO EG1 EG2

X Mode Y

Amp

Gate LFO Volume

KBD Hold

Filter EG

A D S R

Gate KEY LFO

Amp EG

A D S R

Gate KEY LFO

Filter LFO

Rate PW MOD

Amp LFO

Rate PW KEY

X Y Z

Base X11 Base Y12 Base Z15

Right Link

084 034 084 100

X Y Z S

Area Volume

Center Comp

050 080

Width Level

AcousModules

Areas

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
050	050	050	050	050	050	050	050	050	050	050	050	050	050	050	050	050	050
Col	Col	Col	Col	Col	Col	Col	Col	Col	Col	Col	Col	Col	Col	Col	Col	Col	Col

L R SpatStrument 18X