



BLINKSONIC°

User guide written by Sylvain Stoppani.
Related to Substanz V1.0.1 release July 2016

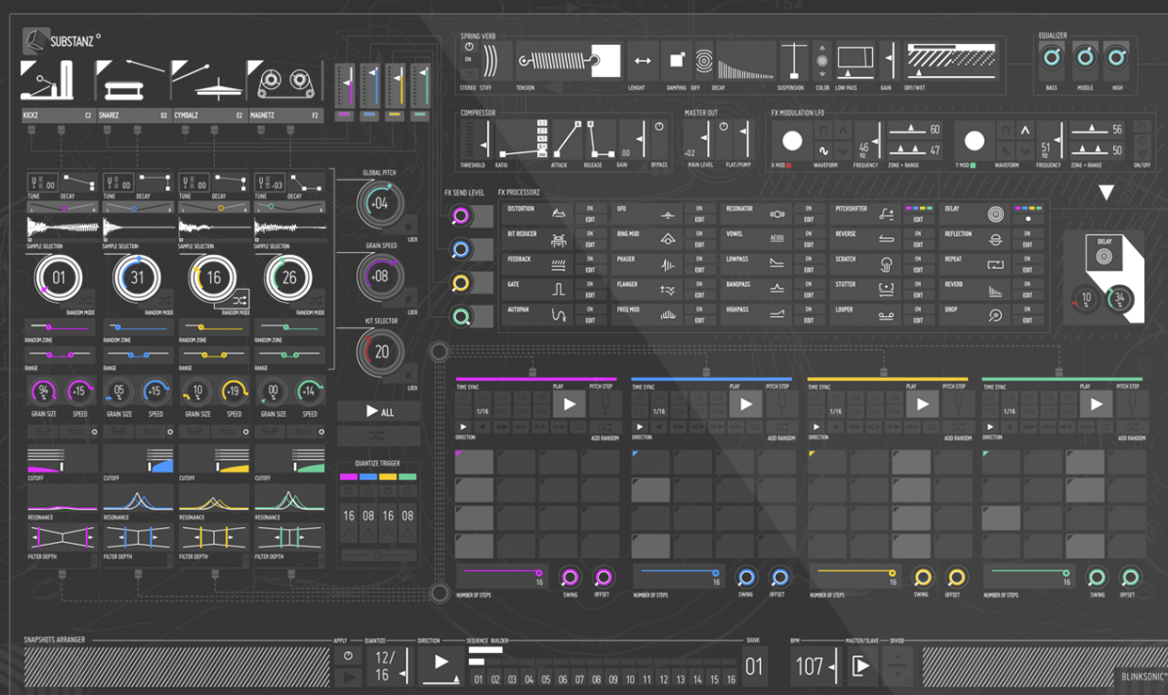
SUBSTANZ° MANUAL :

- DESCRIPTION
- The 4 SAMPLE DECKS
- The SEQUENCER
- The FX PROCESSORZ
- The FX MODULATION LFO
- The MASTER CHAIN
- The SNAPSHOT ARRANGER
- The SYNC SECTION
- KEY LIGHT and MIDI MAP
- LICENSE AGREEMENT

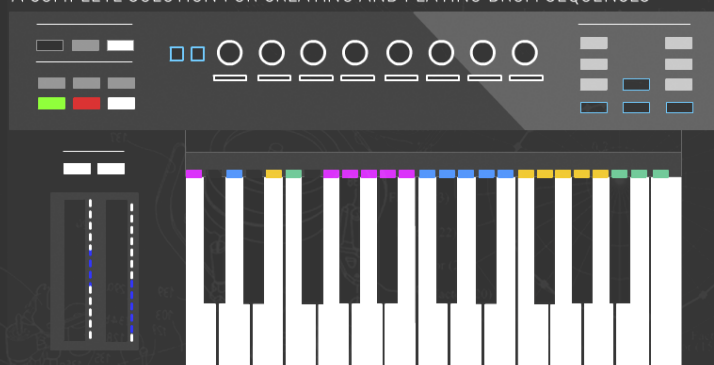


SUBSTANZ°

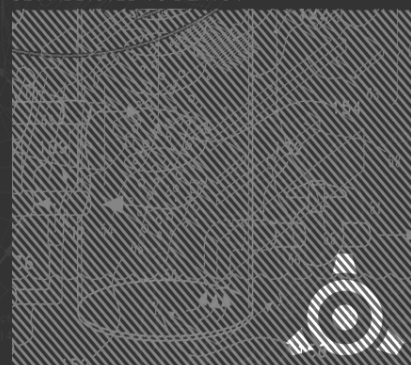
4 VOICES FINGER DRUM MACHINE AND GROOVEBOX SAMPLER + MASTER FX PROCESSORS



A COMPLETE SOLUTION FOR CREATING AND PLAYING DRUM SEQUENCES



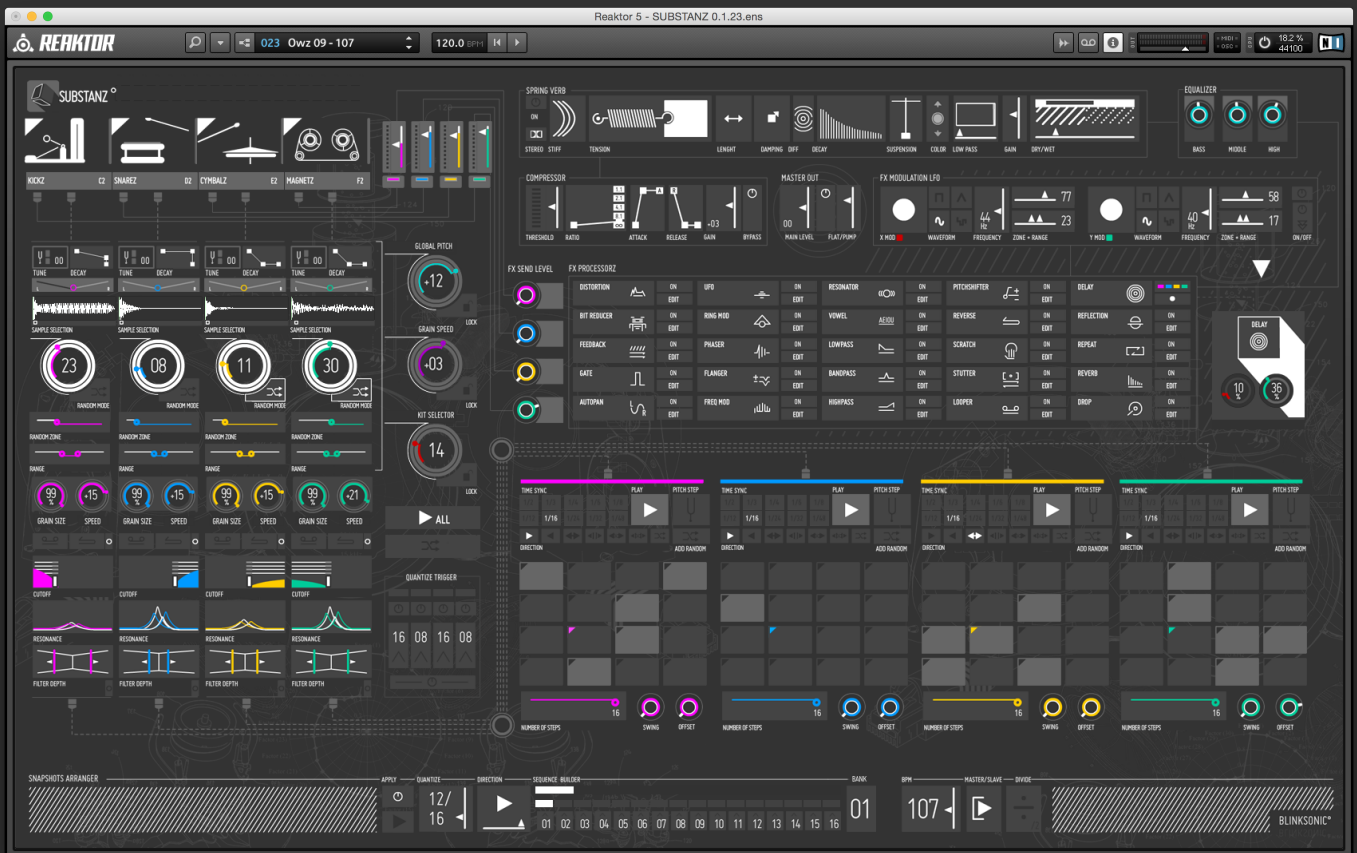
GET ADDICTED TO BEATS !



DESCRIPTION

SUBSTANZ is a 4 tracks sample based groovebox and finger drumming ensemble for NI Reaktor.

SUBSTANZ concept provides a complete solution for switching between pre built sequences and more lively performance with real time drum taps launched by an external midi devices.



With its wide flat design dashboard, all parameters are within a comprehensive workflow for creating a various range of beats and building modern rhythmic structures.

SAMPLE COLLECTION

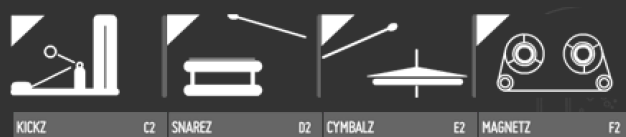
SUBSTANZ comes with a unique collection of samples, based on 41 drum kits which cover various electronic music styles.

These drum kits are a subtle reworked of percussive tones from different rhythm boxes, famous « amen breaks », vintage and acoustic drum parts. A precisely craft drum elements.

All have been previously recycled in a blending audio process for getting 164 original high quality sounds which got the particularity of having a long release and a multitimbral layer.

This illustrated collection is splitted in 4 cutting-edge categories :

- «Kickz» basic sub waveforms morphed with classic kick drums, noises and clicks,
- «Snarez» a blend of synthetic and vintage snare drums which contains a multi texture and particular acoustic response,
- «Cymbalz» hybrid waveforms that combines both open and closed hit/hats with crash and ride elements on the background.
- «Magnetz» a selection of harmonic audio signals merged with some tom drums, audio slices or percussive tones.



PREDICTABLE RANDOMNESS

SUBSTANZ also contains the same concept previously explored with Blinksonic° RUIDOZ and AETONZ with a random modes which make possible to define a range of aleatory on each gate events. This process injects a random dose for every sounds launched by the 4 decks. Following this principle, it's possible to create astonishing and evolving loops on each tracks.



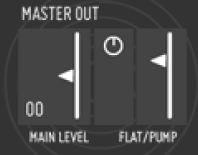
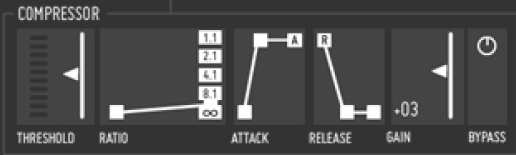
The instrument has been also designed to provide an extensive solution for composition and to subsequently be easily transposed for live use, create a simple rhythmic base and be able to tweak and adjust without losing the essence of the original idea. The « snapshots arranger » is also available for this. It's possible to build the skeleton of a song with this module which takes the control of presets and gives an order of execution to all of them.



And just because it was not enough. SUBSTANZ comes with a wide collection of 25 effects modules that can be instantly triggered via midi, offering the possibility to remix and smash the whole and create impressive playable sound mangling.



For managing dynamic and the main atmosphere of your mix, SUBSTANZ also includes a master chain effect with a basic equalizer, a spring reverb, a compressor and flat/pump limiter.



A GOOD HOST FOR YOUR SOUNDS

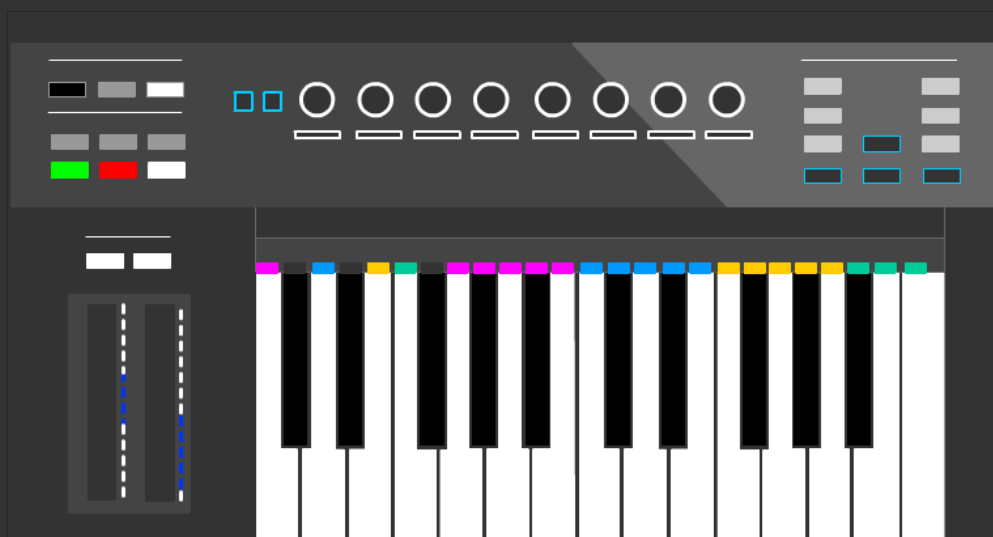
It's also possible to load your own samples in each decks, add some granular/pitch modulations in real time, quantize your midi inputs, add some instant kit changes...

KOMplete KONTROL S keyboard owners have not been forgotten. SUBSTANZ is Native Map and Light Guide ready.

All these features make SUBSTANZ an addictive and powerful beat station for Reaktor 5/6 that can not leave you indifferent if you are looking for a virtual instrument offering a paradigm of performance, originality and inspiration.

Around 100 snapshots are available in various music style (IDM, GlitchHop, House, Trap, Electro, DNB). You can use them to make a good start managing this little monster...

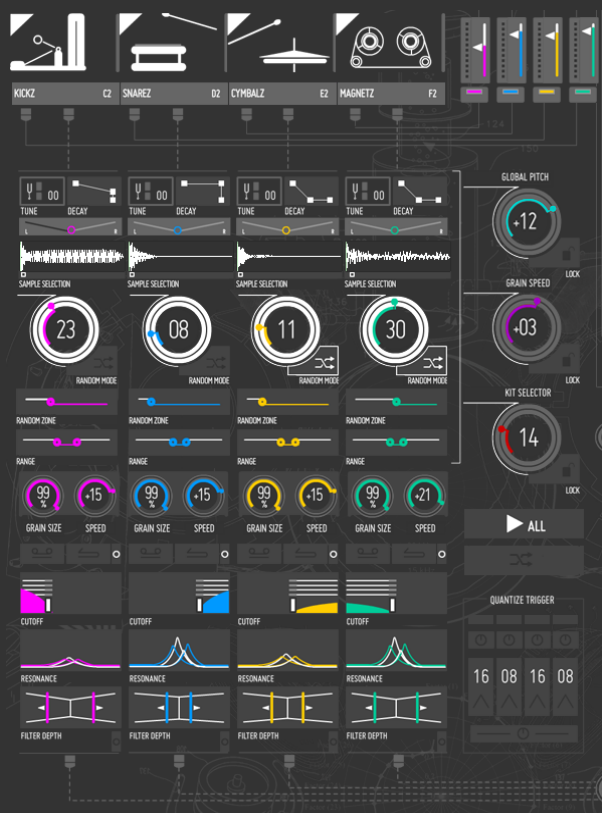
Beware ! You will be quickly addict with SUBSTANZ !



REQUIREMENTS

- A MAC or a PC with the full version of Native Instruments REAKTOR 5.9.2 or REAKTOR 6,
- A screen resolution of a minimum of 1920x1200 megapixel for a full display on screen of the instrument. SUBSTANZ measure 1665x977 megapixel.
- Intel Core 2 Duo equivalent must be enough with 4 GB of Ram. To give an idea this ensemble has been created on a 2,7 Ghz Intel Core i7.
- CPU usage : Around 16% and 27% with a 2,7 GHz Intel Core i7, 16G Ram and Reaktor 5.
- An internet connection to download the files and potential updates.

The 4 SAMPLE DECKS



- PADS

These 4 pads play midi notes and launch the sample selected in each decks. It also responds to all incoming midi source via the channel 1.

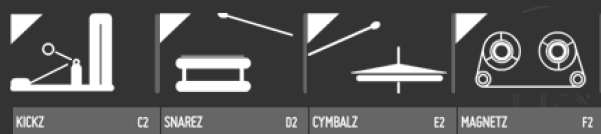
Midi notes used are :

- C3/48 for KICKZ
- D3/50 for SNAREZ
- E3/52 for CYMBALZ
- F3/53 for MAGNETZ

With Reaktor in standalone mode with the computer keyboard, use :

- « Z » in QWERTY or « W » in AZERTY for KICKZ
- « X » for SNAREZ
- « C » for CYMBALZ
- « V » for MAGNETZ

If any sequencer is running, it's possible to add notes on the fly and if the pressure on the pad is constant, it will continuously play the sound as a drum roll, following the time sync speed of the related sequencer.



LIST OF EDITING DECK FUNCTIONS

- TUNE : Adjust the pitch frequencies of the sample played
- DECAY : Control the decay envelope of the sample + PAN
- GRAIN SIZE : Adjust grain size of the sample.
- SPEED : Expressed in %, this knob determined how speed is the loop. From a middle position, if the knob is turned clockwise, it increases the playback speed. Turned to the left, the playback direction is reversed. In each senses, Closed to the middle value, you can get interesting granular synthesis.
- GRAIN LOOP : Enable loop play mode of the sample. Grain gets wider by increasing GRAIN SIZE and SPEED.
- REVERSE : Sample is executed in a predefined reverse mode.
- SMOOTH : Enable a smoother granular synthesis of the sample.
- CUTOFF : Set the cutoff frequency of the filter. This cutoff frequency applies to edges in both off a lowpass and highpass.
- RESONANCE : Attenuate or accentuate the narrow band of frequencies
- DEPTH : Sets the width of the filter action.

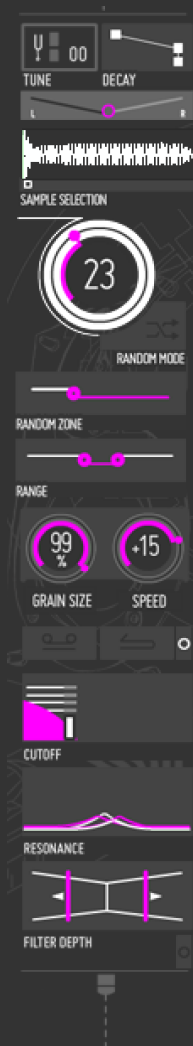
THE SAMPLE ENGINE

- SAMPLE DISPLAY : Display which sample of the map is playing. Every decks contain 41 samples by default. Double click to add your own sample. It will open the sample map editor. 21 slots are available for future updates or for your own collection of sounds.
- Note : 127 samples can be embed in each maps but it is limited here to 62 samples.

Before importing your samples, it's highly recommended to backup your files.

An analysis data can overwrite the original head data files of other softwares, and convert your files to 16 bits from 24 bits.

- START POSITION : Start position in %. Let you define the beginning point of the sample.
- SAMPLE SELECTION : With this knob you select which sample will be played. In Random mode this is the "Random Zone" fader which controls this parameter. Same when the global "Kit Selector" is locked.
- RANDOM MODE : Switch between "Random samples mode" or "Single sample mode". In "Random samples mode", the sample will be changed randomly during each gate events. This option let you set a kind of predictable randomness during the playback of a track.
- RANDOM ZONE : In « Random mode », choose which sample and which zone in the map will be the center. Inactive in « Single Mode ».
- RANGE : In « Random mode », choose how many samples (zone width) could be played in the map . Inactive in « Single Mode ».



THE PRE MIXER

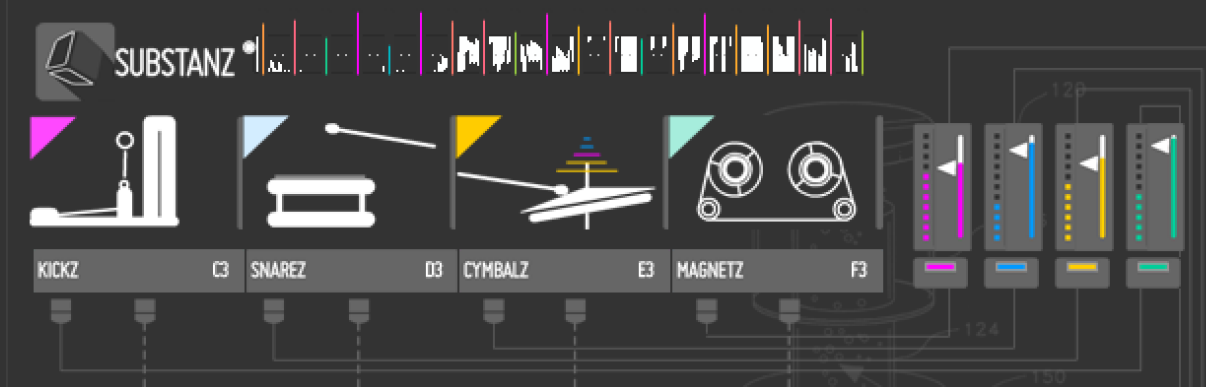
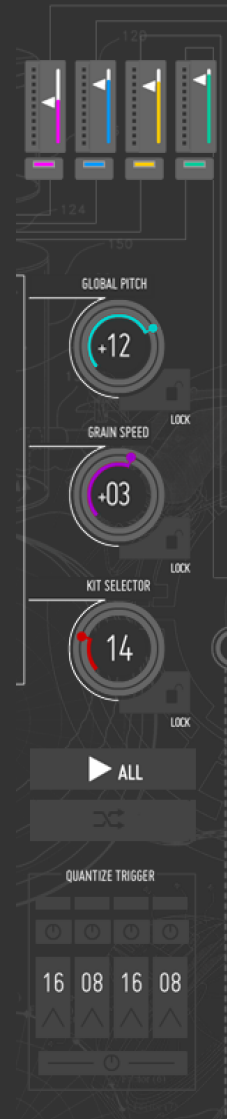
- LEVEL MIXER : Sets the level of tracks before entering in the FX and MASTER buses. Note: if set to -60dB the signal is muted!
- MUTE TRACK
- GLOBAL PITCH + LOCK BUTTON : When locked, change the pitch of all decks in the ensemble.
Note : Assigned to the pitchbend of the currently connected midi keyboard controller (chan. 01).
- GRAIN SPEED + LOCK BUTTON : This knob aimed to be used as a grain time effect. When locked, turn it between 00 to 12, you can stretch all the samples in real time. Between -24 and -1 and 12 to 24, instant short decay. Very funny for smashing beats !
By default this knob is assigned to the modulation wheel of a midi keyboard.
For a regular grain size, the most neutral parameter is 12.
- KIT SELECTOR + LOCK BUTTON : When locked, this knob allow to command which kit will be applied to the 4 decks.
Note: when enable, this function commutes the selected samples of each decks, even in random mode.
- PLAY ALL : This knob is very important ! It can act as a switch between FINGER DRUM MODE and SEQUENCER MODE.
When enable, it launch an instant playback of the 4 sequencers. Note : Reaktor or DAW intern clock must run in order to see the 4 sequencers to be active.
- BREAKZ : Add 50% of random on each sequencers for producing interesting drum sequence variation and breaks.

THE QUANTIZE TRIGGER OPTION

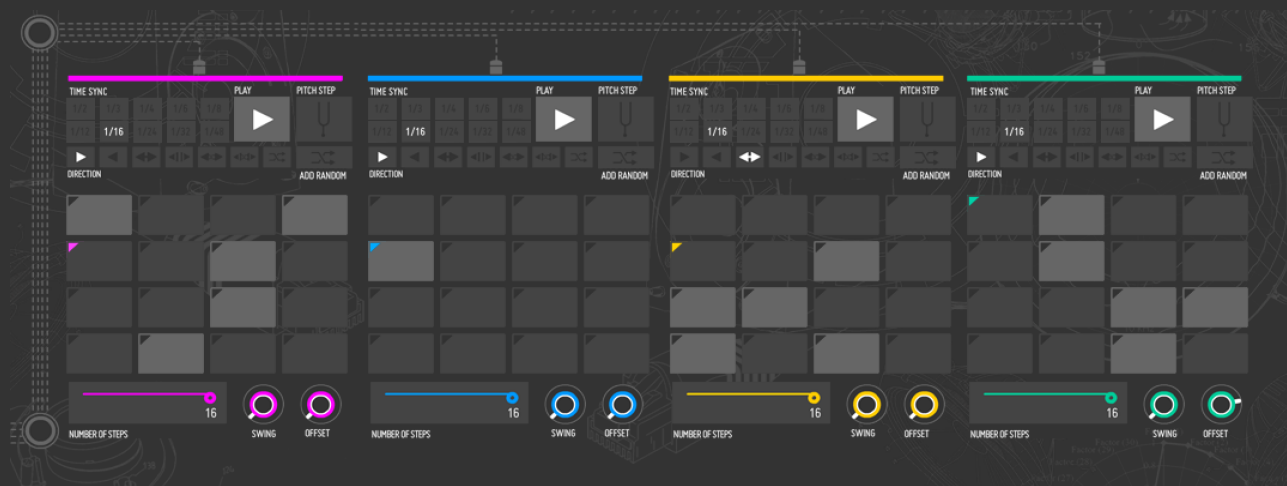
- QUANTIZE ALL : Enable/disable the 4 trigger quantizers. All incoming midi signal are filtered following the time clock and quantize value. Aims to stay in time in finger drumming mode
- QUANTIZE VALUE x4 : Sets individual quantize division value for the related deck.

- DISCOPE Switch

This discrete little circle after SUBSTANZ tittle, enables the funky SUBSTANZ's scope.



The SEQUENCERS



- PLAY/PAUSE : This Button enable/disable the sequencer.

- PITCH STEP : Click this button to display the pitch step editor. You can tune from -24 to + 24 semitones every active steps of the sequence in this section.

- TIME SYNC : Choose with theses buttons the desired Sync / Clock resolution of the sequence : 1/1, 1/2, 1/3, 1/4, 1/6, 1/8, 1/12, 1/16, 1/24, 1/32, 1/48.

- DIRECTION : Define in which direction and order the steps are played.

- ">" : Normal mode

- "<" : Reverse mode

- "<=>" : Ping Pong mode

- "<ii>" : Faster Ping Pong mode

- "<?>" : Partial Ping /Random mode

- "<<?>>" : Faster Ping/rdm mode

- "???" : Total random mode

- ADD RANDOM : Put 50% of randomness on the original trigger points of your current sequence. Note this parameter is linked to the BREAKZ button.

- NUMBER OF STEPS : Number of steps of the sequence. From 1 to 16 steps.

- SWING : Shuffle : Add some swing effect to the sequence.

- OFFSET : Set the position of the first step in sequence. Aimed to bring some "time lag" in realtime.



The FX PROCESSORZ



- FX SEND LEVEL x4 : Theses knobs work as a dry/wet for the FX Processorz. Turned completely to the right (wet), the track is entirely processed by the enabled effects. In a middle position, the 2 signals are mixed. Turned left (dry), the track is not modified by any effect.
- POWER FX : Toggle button. Press it to activate permanantly the FX
- EDIT FX : When pushed, get access to the 2 parameters (X/ Red and Y/ Green) of the related FX, on the right of the fx board.
- MOMENTARY FX Button : Names and illustrates each effect. Press it for instant FX



List of EFFECTS :

EFFECTS

- DISTORTION
- BIT REDUCER
- FEEDBACK
- GATE
- AUTOPAN
- UFO
- RING MOD
- PHASER
- FLANGER
- FREQ MOD
- RESONATOR
- VOWEL
- LOWPASS
- BANDPASS
- HIGHPASS
- PITCHSHIFTER
- REVERSE
- SCRATCH
- STUTTER
- LOOPER
- DELAY
- REFLECTION
- REPEAT
- REVERB
- DROP

X/ Red Parameters

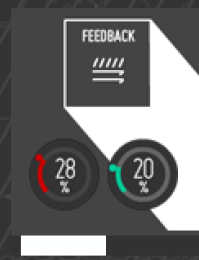
- GAIN
- DOWNSAMPLE
- TIME
- BARS
- RANGE
- OSC FREQ
- SWEEP
- SPEED
- TIME
- OSC 1
- TIME
- FREQ 1
- FREQUENCIES
- FREQUENCIES
- RESONANCE
- SIZE
- LENGHT
- LENGHT
- POSITION
- SMOOTH
- TIME
- DECAY
- LENGHT
- SIZE
- SMOOTH

Y/ Green Parameters

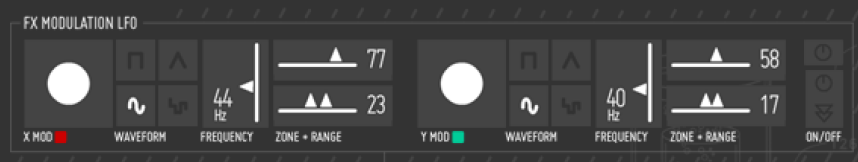
- FREQUENCIES
- REDUCTION BITS
- FEEDBACK
- WIDTH
- SPEED
- FILTER
- FREQUENCIES
- DEPHT
- FEEDBACK
- OSC 2
- FREQUENCIES
- FREQ 2
- RESONANCE
- RESONANCE
- FREQUENCIES
- PITCH
- SPEED
- SPEED
- LENGHT
- TIME
- FEEDBACK
- POSITION
- SPEED
- POSITION
- STOP/START

- BLACK FADER : Additional FX parameter (not for all effects). Appears when the effect is enable.

Note : Changing the position of this fader, affects all effects.



The FX MODULATION LFO



- Y/X MOD METERS : Graphic signal of the LFO routed to the X/Red and Y/Green FX parameters
- WAVEFORM : Choose the waveform of the modulation - Pulse, Triangle, Sin or Random
- SPEED : Rate of the LFO
- ZONE : Give a center amplitude for the LFO
- RANGE : Define the value area of the LFO oscillation
- TOGGLE LFO : Permanent Enable/disable LFO.
- GATE LFO : Momentary Enable/disable LFO.

The MASTER CHAIN

EQUALIZER : Cut/boost Bass, Middle and High Frequencies



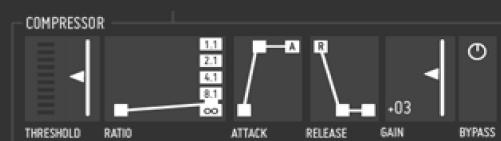
SPRING REVERB

- STIFF : Sets the "stiffness" of the spring. Higher values result in a brighter, more resonant sound.
- TENSION : Sets the tension at which the spring is attached to the transducers. High tension results in more low frequency diffusion.
- LENGHT : Sets the length of the spring. A longer spring will produce a more spread shattering pattern and a different overall sound.
- DAMPING : Sets the high damping characteristics of the spring.
- DIFF : Sets the shape of the sping wire.
- DECAY : Sets the duration of the spring's decay. It's actually the amount of feedback applied.
- SUSPENSION : sets the cutoff-frequency of a highpass filter within the feedback loop.
- COLOR : Global color. Bottom = dark, Top = bright.
- LOWPASS : Transducer damping of high frequencies. This knob sets the center frequency of a pre-feedback, 6dB lowpass filter.
- GAIN : Output level of the wet (spring) signal.
- DRY/WET : Mix of dry (left) and wet (right) signals.



COMPRESSOR

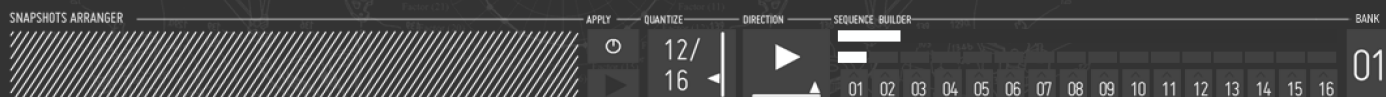
- THRESHOLD : Sets the value above which the compressor takes effect (in dB).
- RATIO : Sets the ratio of the compressor. i. e. the way in which the audio signal above the adjusted threshold is processed: Turn to the top for no effect, to the mid for soft compression and to bottom for hard limiting.
- ATTACK : Attack Time. Sets the time used by the compressor to response to fast level changes.
- RELEASE : Release Time. Sets the time used by the compressor to return from higher compression when the input level is falling.
- GAIN : Compressor output gain level



MASTER OUT

- MAIN LEVEL
- FLAT/PUMP Power Switch : Turns the complete effect on or off; toggle off to save CPU power.
- FLAT/PUMP CROSSFADER : Kind of predefined Limiter/Finalizer for giving more dynamics to the transients of your mix.

The SNAPSHOT ARRANGER



- APPLY : This button on, snapshots are immediately recalled.
- RUN : Instantly run the song (suit of snapshots) programmed in the SEQUENCE BUILDER
- QUANTIZE : Defines how long each snapshots are executed (in sync with the BPM/Clock)
- DIRECTION : Define in which direction and order the snapshots are played : ">" : Normal mode, "<" : Reverse mode, "<->" : Ping Pong mode, « <ii> » : Faster Ping Pong mode, « <?> » : Partial Ping /Random mode, "<<?>>": Faster Ping/rdm mode and "???" : Total random mode.
- DEFINE SONG LOOP : This selector is for setting up the number of snapshots that will be interpreted in the song. It also defines the start and the end of the song. The white leds at the bottom indicates which snapshot is playing in real time. It's timeline zone selector. For selecting the loop points : click and slide from the right to the left. For selecting only one snapshot : click this selector in the zone which is exactly above the led indicator.
- SEQUENCE BUILDER FADERS: Choose which snapshot will be played in the 16 timeline zones.
- BANK : Choose which bank is recalled by the SNAPSHOTS ARRANGER

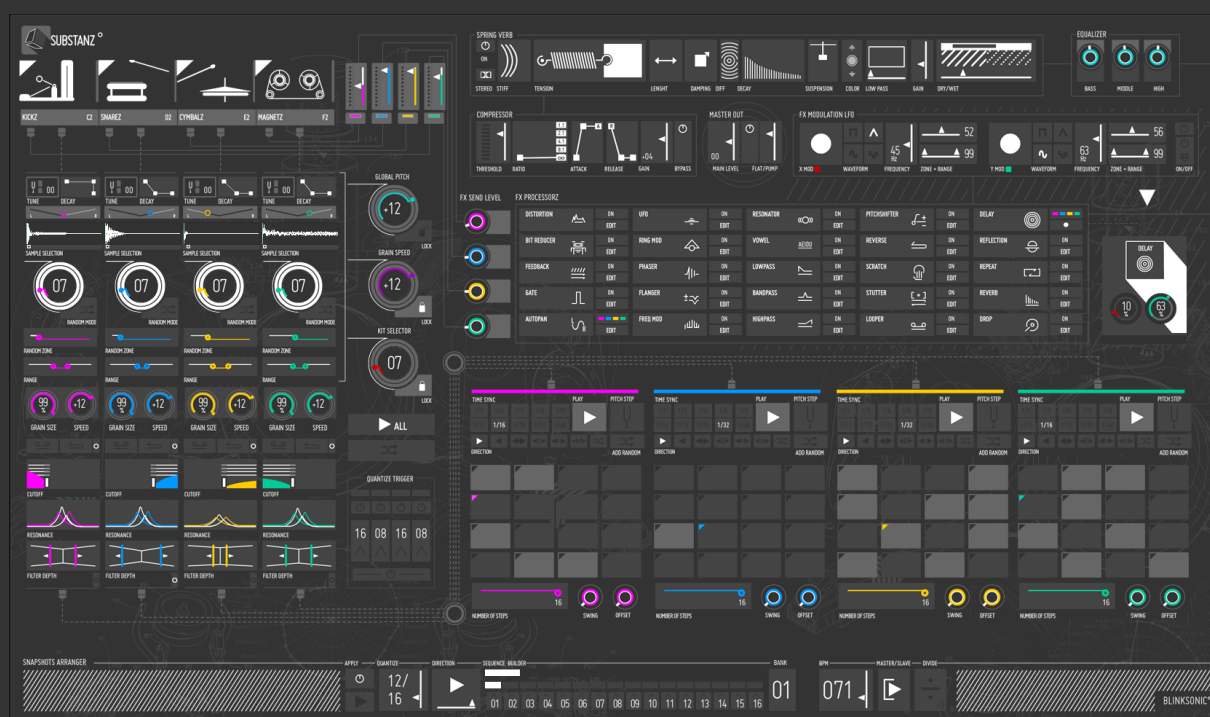
The SYNC SECTION



- BPM : SUBSTANZ Internal/master clock speed.
- MASTER/SLAVE : Choose the clock source with this switch.

[> = Use SUBSTANZ master/internal clock
>] = Use Reaktor/ DAW slave/external clock

- DIVIDE : Half tempo



MIDI MAPPING :

Midi notes used for the PADS (channel 1) :

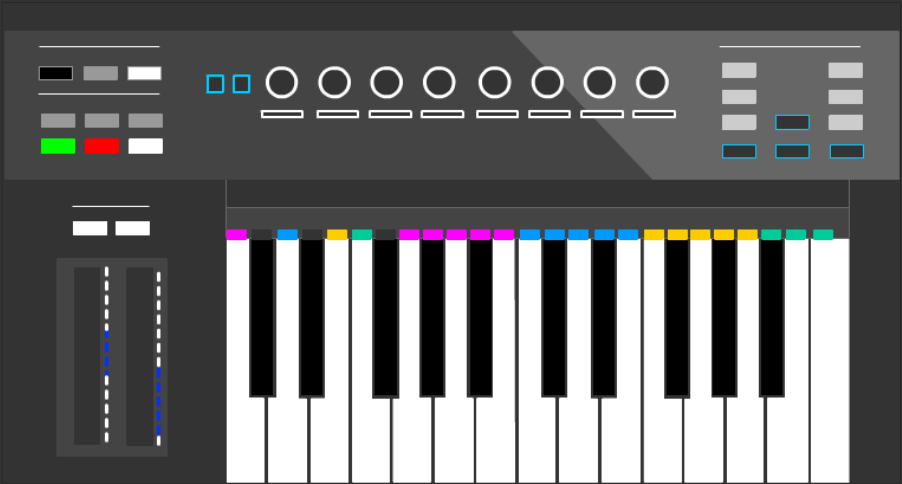
- C3/48 for KICKZ
- D3/50 for SNAREZ
- E3/52 for CYMBALZ
- F3/53 for MAGNETZ

- CC37 for LOCK GLOBAL PITCH
- Pitchbend/CC00 for GLOBAL PITCH
- CC39 for LOCK GRAIN SPEED
- Modulation Wheel/CC01 for GRAIN SPEED
- CC54 for LOCK KIT SELECTOR
- CC49 for PLAY ALL
- CC51 for BREAK
- CC 55 for INSTANT LFO

Midi notes used for launching FX PROCESSORZ (channel 1) + Computer Keyboard :

EFFECTS	MIDI NOTE / CC	AZERTY	QWERTY
DISTORTION	- E4 / CC76	« P »	-« P »
BIT REDUCER	- F4 / CC77	Not available	Not available
FEEDBACK	- F#4 / CC78	Not available	Not available
GATE	- G4 / CC79	Not available	Not available
AUTOPAN	- G#4 / CC80	Not available	Not available
UFO	- B3 / CC71	« U »	« U »
RING MOD	- C4 / CC72	« I »	« I »
PHASER	- C#4 / CC73	« 9 »	« 9 »
FLANGER	- D4 / CC74	« 0 »	« 0 »
FREQ MOD	- D#4 / CC75	« Ø »	« Ø »
RESONATOR	- F#3 / CC66	« 5 »	« 5 »
VOWEL	- G3 / CC67	« T »	« T »
LOWPASS	- G#3 / CC68	« 6 »	« 6 »
BANDPASS	- A3 / CC69	« Y »	« Y »
HIGHPASS	- A#3 / CC70	« 7 »	« 7 »
PITCHSHIFTER	- C#3 / CC61	« L » or « 2 »	« L » or « 2 »
REVERSE	- D3 / CC62	« : » or « Z »	« > » or « W »
SCRATCH	- D#3 / CC63	« M » or « 3 »	« : » or « 3 »
STUTTER	- E3 / CC64	« = » or « E »	« ? » or « E »
LOOPER	- F3 / CC65	« R »	« R »
DELAY	- G#2 / CC56	« H »	« H »
REFLECTION	- A2 / CC57	« N »	« N »
REPEAT	- A#2 / CC58	« J »	« J »
REVERB	- B2 / CC59	« , »	« M »
DROP	- C3 / CC60	« ; » or « A »	« < » or « Q »

Appart this functions mentioned above, the main parameters of SUBSTANZ have an Automation ID ready setup. They will be automatically recognized with their names in your DAW or by the LCD display of each knobs of the KOMPLETE KONTROL S SERIES keyboards.



LICENSE AGREEMENT

This License agreement determines, between BLINKSONIC and the purchaser, the term of use for the product sold on www.blinksonic.com.

- BLINKSONIC is the legal owner of all rights and copyrights related to the software, the graphic design, the sound samples, the presets, the website, the documentation and the music contained on it.
- These rights are licensed to the purchaser but not sold. This license is for single user. Only the purchaser can use it. It means that the product can not be transferred, copied, lent, duplicated or reselled.
- The purchaser can install and use the product on up to 2 computers only.
- BLINKSONIC grant the non exclusive right to use the software and its sounds for music compositions only. It means that the purchaser can broadcast, synchronize, release in any media productions the result of the recordings works he did with the software, except in production related to sound bank, loop libraries or other software distributions and sells.
- Samples and presets contained in the product are royalty free. There is no additional fees for the use of them in music recordings but distribution and sells in other package or software are strictly prohibited.
- This license doesn't allow to share the software with other users on torrent and cloud services. In case of collaborative works, every users must have his own license of the software.
- This license is effective for the lifetime of purchaser and worldwide. It gives right to free updates of the product, except new version.
- Software download with no warranty. BLINKSONIC is not responsible on any lost data, and hardware problems, even financial loss and health issue due to the use of the software.
- All contents of the software (samples, features, manual..) and this agreement can be subject to change following BLINKSONIC convenience.
- To prevent piracy, BLINKSONIC cannot proceed any refund and return. If you have any doubt before purchasing, have a look to the documentation and the demos on the site or contact me for more information.

www.blinksonic.com
info@blinksonic.com

