

ALBION



TUNDRA

SPITFIRE AUDIO

## CONTENTS:

**OVERVIEW**

**GETTING STARTED**

**ALBION V FILE STRUCTURE**

**THE ALBION ORCHESTRA**

**STEPHENSONS STEAM BAND & BRUNEL LOOPS**

**VRAL GRID INTERFACE**

**APPENDIX A. Kontakt Vs Kontakt Player**

**APPENDIX B. Recommended Spec**

**APPENDIX C. Articulations, Instruments & Presets**

**APPENDIX D. eDNA Plug Ins**

**APPENDIX E. Microphone and Mix Acronyms**

**APPENDIX F. Advanced Orchestral Programming**



## OVERVIEW

### BACKGROUND

In what can only be described as a sonic odyssey, the Spitfire crew has travelled northern climes to research, discover and unearth the most naked, honest and glacial set of samples we have recorded to date. Returning back to London we set about recording an enormous orchestra - but not in a style steeped in the choral tradition, echoing angelic angels from above. We sought instead to create a sonic tapestry that was of this Earth. As if it was seeping through the moss on the ground, smelling of Estonian forests, Scottish lochs, Norwegian fjords, and evoking the sense of isolation when stood on the permafrost and tundra of Iceland.

For many years now Spitfire Audio has been recording orchestras of all sizes, but a theme that has run throughout our last decade is how to unearth and discover more naked and honest performance styles. We also understand that where sampling is concerned it's the quietest of levels where the real magic happens. By taking this into account, by studying the most popular recordings of Arvo Pärt, Sibelius and Gorecki, and by observing new emerging talent from Scandinavia and Iceland we were inspired to create a whole new set of tools.

Partnering with long term collaborator, orchestrator and contemporary composer Ben Foscett we set about recording a full dynamic set of samples where the top level was set at mp (mezzo piano, or kind of medium quiet) right down and through to the quietest recordings we have ever dared record. Our chief engineer opened up the hall at Air Studios to maximise its amazing early reflections and to liquify the fibrous and finely textured instructions we gave the 100 strong band of extraordinary London players. Samples we believe that have never been made before.

# FEATURES

## ALBION ‘TUNDRA’ ORCHESTRA

### ICY STRINGS

Creating something extraordinary often takes a leap into the unknown. We knew we wanted the strings to have a frozen sheen to them. We felt we needed to scoop some of the lower mids out of the frequency map. So we took the bold decision of excluding violas from the orchestra and instead supporting a rich cello and bass offering of 12 & 6 players sat in the middle of the room with two massively enhanced violin sections of 20 and 18 players sat in ‘Antiphon’ (opposite sides of the room). The huge selection of articulations created ranged from pimped classics such as our ever popular flautando, but with mutes added, and sections playing poly-divisi so that even with a band of this size, every player can be heard. Right through to unorthodox approaches; requesting that players attend the session with practise bows with NO rosin on the hair so traction was very limited, to actually BOWING the strings with the back of the bow. Jake Jackson’s real challenge, with the roof fully elevated so that the signal contains as much early reflection as possible, was trying to get the musicians louder than the ambient room tone. We recorded the strings in two (high & low) sections with (where possible) matching articulations. Highlights alongside these cascading long articulations are flautando legatos, brushed shorts and some extraordinary loose pizzicatos where only the principals were in possession of the click track!

### WHISPERING CHORUSES OF BRASS & WIND

We’ve got four different bands (high winds, mid winds, mid brass, low brass) all booked with a choral mode in mind. Taking experience gained with our fantastically popular Trumpet Fields giveaway instrument, our instructions to all bands were to be naked, honest, and non-conservative, but also with very specific textural approaches that liven the hall to create a very natural mossy patina. Whilst the entire “Tundra” orchestra is playing from quiet markings all the way down to ‘oblivion’, where the orchestral tones are slowly deafened by silence, the end result is a deeply dynamic and timbral set of expressive instruments that quite happily act as a stand alone orchestral tool-set, albeit of a quite unique quality.

### VRAL GRID

In what is always a fascinating creative process, we set about accompanying the Tundra band with a selection of Harmoniums and Shruti Boxes (bellowed single chord Indian drone makers). But it didn’t quite match up to the “Tundra” magic, so it was abandoned. Well, everything save a throw away portion of the recordings where Christian had requested for the players to perform on the knife edge between the bellow hissing, and the reeds actually sounding. This produced an extraordinary selection of stuttering granular folk beds which we have slammed through processing and have warped and cajoled into a very special Nordic style Evo Grid. With 32 evolutions spread over 12 regions and the all important dice function to immediately randomise your preset into a near infinite number of possible outcomes.

## STEPHENSON’S STEAM BAND

Following from our hugely successful warped orchestral content in Albions 1 through 3 we decided to approach this set differently. Instead of using our ‘in-the-box’ pristine set of digital processing and mangling tools, we decided to go wholly out-of-the-box, employing whirring Roland Space Chorus Echoes with classic Eventides and Axe FX Pros into the mangle chain - the brief: “imagine you had put together a studio entirely made up from an abandoned 1960s American early warning system”. Not only does this collection feature orchestral material, but also the aforementioned Harmoniums and Shruti boxes which offer up a particularly unique and northern feel.

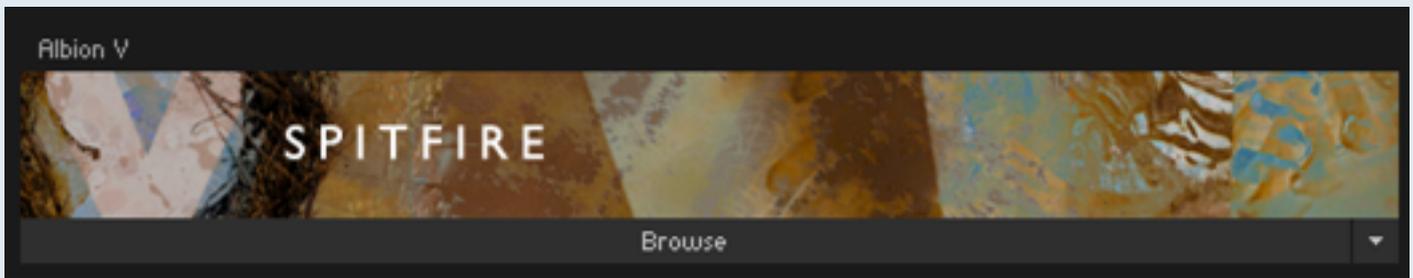
The end result of this component is as inspiring, mossy, and earthy as the rest of the library. Presented in our ever popular ‘eDNA’ engine so you can instantly make these presets your own.

## DARWIN PERCUSSION

Never to shy away from epic, we also felt it important to create some brooding epic drum combos designed for intermittent use to mark time or punctuate. Think “Cantus in Memoriam Benjamin Britten” by Arvo Pärt. Featuring unique combinations of very small drums played against massive Verdi bass drums and taikos. These drums speak of distant pagan rituals!

## BRUNEL LOOPS

We’ve invited the legend Paul Clarvis (leader of the Olympic drum corps and London movie session favourite) back on to Spitfire’s dry stage with his infamous car full of “percussion that doesn’t sound like percussion instruments” to record some intimate and honest rhythmic passages to add frosty momentum to your scores. Again presented on the eDNA platform for instant tweakability, but also with a series of spring-out-of-the-box presets designed by Spitfire’s team of award winning composers and producers.



## ALBION V FILE STRUCTURE

On the library pane click “browse” and click into “instruments”. You’ll be presented with the 5 different sections of the Tundra collection. Within each folder you will find the ‘presets’ these can be single sounds, collections of articulations, or combinations of sounds with collections of more instruments to dabble with.

### ALBION ORCHESTRA

At the root level you will find the key articulation sets. These contain all articulations recorded for the orchestra (save legatos). Load these in, switch articulations on the GUI, by MIDI keyswitch or UACC. There are three more sub-folders:

- Individual Patches  
Where each articulation has its own preset. Perfect for creating palettes with.
- Legato Patches  
Monophonic patches that play the in-between bits of the notes.
- Other patches  
These contain time machine shorts. Using the Kontakt Time Machine engine you can alter the length of the shorts.

### BRUNEL LOOPS

The first four folders feature presets organised by tempo. Whilst the loops will lock to whatever tempi your DAW is working with, it is recommended you pick a tempo that is “close” to where you’re sequence is at. There are also two sub folders:

- Construction Kits  
These are differently prepared templates from which to build your own presets, with different FX loaded some locked to tempo, some locked to frequency in hertz (Hz).
- Dev Kits  
Designed for Devs wishing to create their own preset sets, the rawest form of Brunel Loops.

### DARWIN PERCUSSION

We’ve kept this one simple. One preset, loads of drums at different pitches spread across the keyboard.

### STEPHENSON’S STEAM BAND

Which contains three folders of instruments organised by sound type:

- Bellow Pads  
Constructed from a collection of Harmoniums and Shruti Boxes
- Jarv Pads  
Widescreen cinematic pads made from the Albion V Tundra orchestral material.
- Sammal Presets  
The most distorted and ‘out there’ set of Steam Sounds

### VRAL GRID

A single instrument containing all 32 Evo’s (instruments) from which you can instantly pimp to create your own presets. A subfolder of “individual instruments” - if the grid isn’t your bag, here’s each evo presented in a simple one sound, one preset instance.

## GETTING STARTED

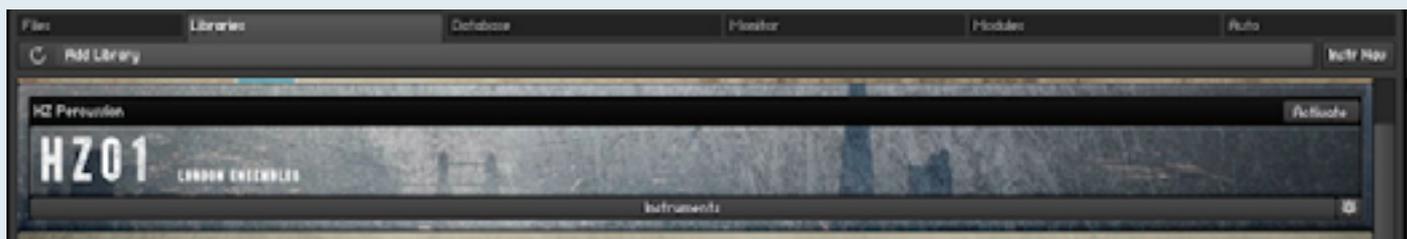
If you've never used one of our libraries before and you don't own a copy of Native Instrument's Kontakt, you'll need to download the free "Kontakt Player" here:

<http://www.Native-instruments.Com/en/products/komplete/synths-samplers/kontakt-5/downloads/>

If you'd like to find out more about the differences between Kontakt and Kontakt Player (we know, very confusing!) go to Appendix A.

If you'd also like to know what we recommend as an optimal set up please go to Appendix B.

1. Install Kontakt Player (skip this step if you already have it)
2. Open the player (or kontakt 5.5 full version if you have that) and click 'add library' in the library browser window:



3. Navigate to the library folder, for example: the 'spitfire hz01 library' folder that contains your library's instruments and samples folders, and also has the '.nicnt' file.

4. Now, you have added the library to the service centre, and you will be prompted to open the application and enter your serial number.

5. Open the service centre application, and enter the serial number in this format:

XXXXX-XXXXX-XXXXX-XXXXX-XXXXX

You will find your serial in the PURCHASE READY email we sent you to tell you your library was ready to download.

6. Restart kontakt and your library is authorised.

If you have never used kontakt before we wholeheartedly recommend that you familiarise yourself with the basics of patch (or instrument) loading, multi management, outputting and midi routing detailed in the kontakt user-manual and native instruments website:

<http://www.Native-instruments.Com/#/en/products/producer/kontakt-4/?Page=975>

If you are an established kontakt user please make sure you absolutely have the latest version of it downloaded via the NI Service Centre. Our libraries are frequently updated and often simply won't work on any earlier versions. We cannot describe the multitude of painful symptoms you will experience if you don't do this!



## THE ALBION ORCHESTRA

### ALBION 'TUNDRA' ORCHESTRA

This large orchestra was recorded via priceless ribbon and valve mics via Neve Monserrat pre amps, the largest 88R Neve console in the world and onto pristine 2" tape before being converted with the top-of-their-class Prism AD converters at 96k. The orchestra is presented in carefully orchestrated sections, sometimes in unison across the entire orchestral range sometimes in high low and middle sections. Alongside many 'work horse' long and short articulations are expertly prepared legato patches; a menu of effects and a huge selection of string runs. There are four mic positions (close, tree, outriggers & ambient) to load and mix to suit the type of music you're writing and the scale you want to achieve. Spitfire also provides a popular "ostinatum" designer that allows you to instantly create exciting, tense or action packed rhythmic passages.

### THE ORCHESTRA GUI & PAGE SWITCHER



When you first load up an Albion Orchestra preset you'll be greeted with this GUI. This is one of 3 pages that you can switch between using the page switcher...

*KONTAKT NOTE: All GUI controls can be assigned a unique controller number so you can automate or adjust via an external controller (vital when playing in virtual Orchestral parts). To un-assign, assign or just to see what CC number is assigned to any control RIGHT or COMMAND CLICK.*

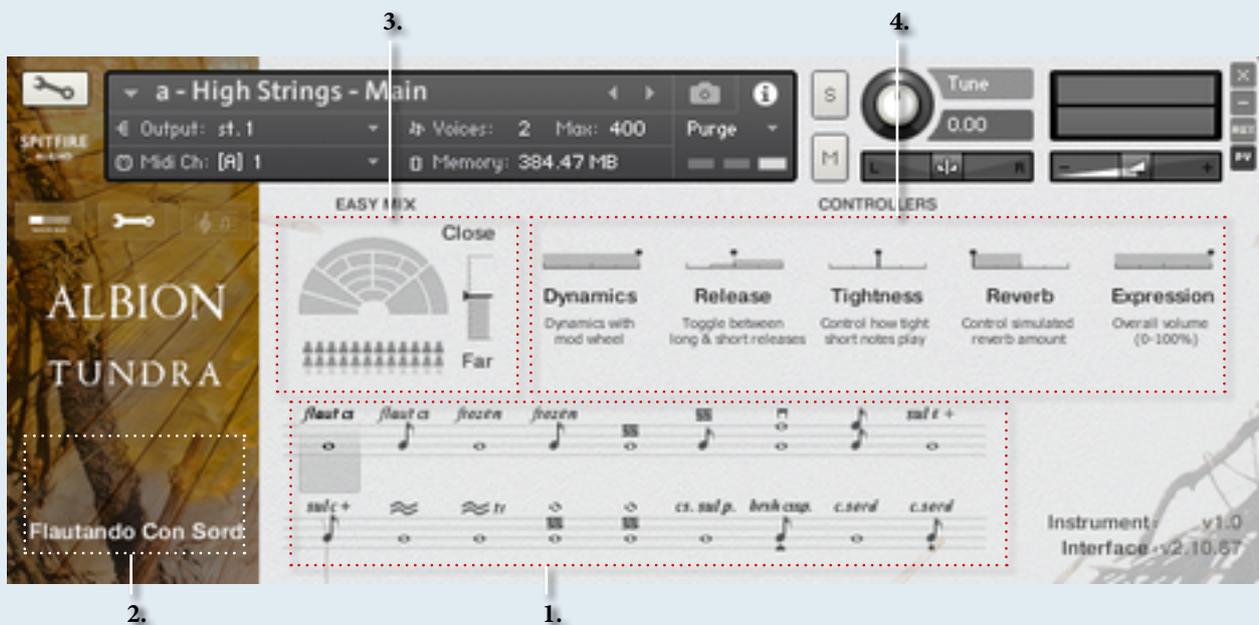


Click on these to switch views or pages:

1. **General Overview** (the view shown above)
2. **Expert View**
3. **Ostinatum.**

All of which are discussed overleaf...

# THE OVERVIEW PANEL

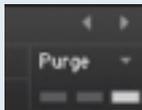


## 1. Articulation Switcher

The notes denote key articulations, display the current articulation playing and act as switches between them (alongside their associated keyswitches).

**LOAD TOGGLES** - The little RAM chips beneath the notes denote the load status of the articulations. If you play an articulation that isn't loaded, the front panel will alert you. Click on the chip to load / unload.

**LOAD STATUS:**



Make sure Kontakt displays the instrument load status as pictured. If the left hand bar is illuminated and red it's in a queue and hasn't started loading yet, if the middle bar is lit and yellow the instrument is still loading up. If you try to play before it's loaded it probably won't sound very nice!

**ARTICULATIONS** - Click on these notes to select the different articulations. Whichever articulation is live is displayed in the yellow sidebar on the left. You can also select different articulations by hitting key switches. You can do this whilst you're playing so if you want to say switch from a "long" articulation to a "short", hit the key whilst you're playing your last long and the next note will be a short. For details of articulations recorded go to Appendix A.

## 2. Side Bar

Tells you which articulation you're playing.

## 3. Easy Mix

The Albion orchestra was recorded with several different mic perspectives. Move this slider up or down to change the perceivable distance from the band. NB: the first time you use this it will need to load in the samples, so give it a moment!

## 4. Expressive Controllers

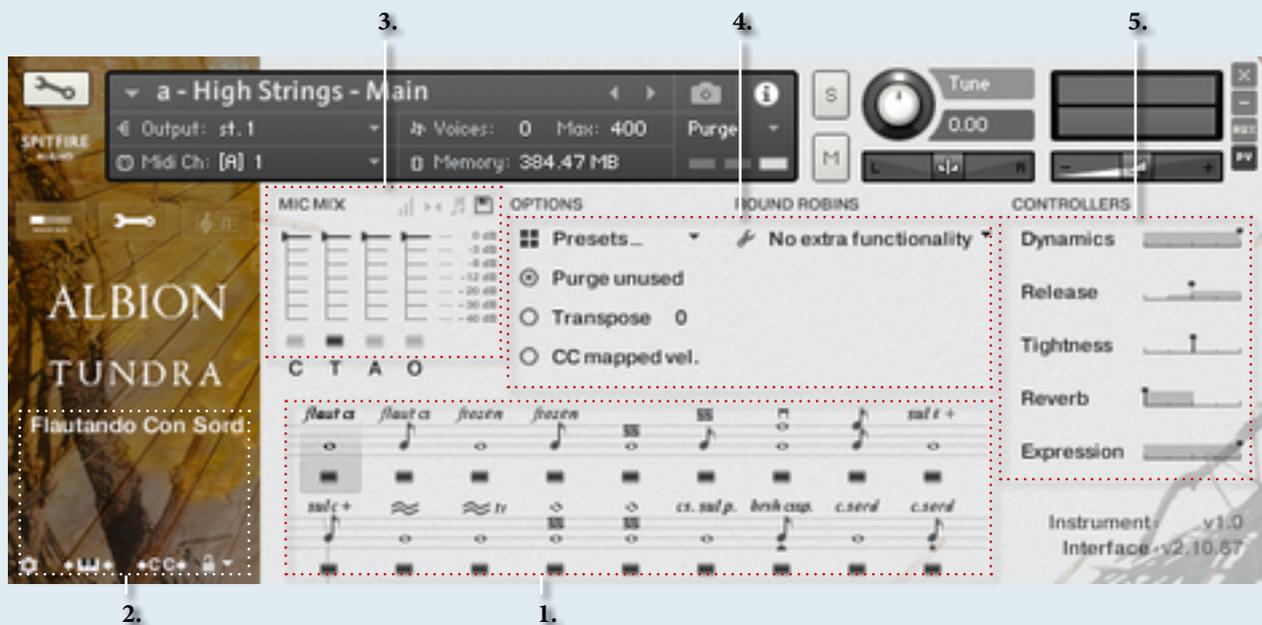
**Dynamics** - probably the most important controller you have. This crossfades between the different dynamic layers recorded.

**Vibrato** - where appropriate this crossfades from no (or senza) to lots (poco) vibrato.

**Lush Verb** - We've shipped Albion V Tundra with our own selection of bespoke lush impulse responses. Use this controller to douse your orchestral work in glorious arcing ribbons of splosh.

**Expression** - ostensibly instrument trim (CC11), so this adjusts the volume within the instrument volume (CC7) great when used in conjunction with expression.

# THE EXPERT'S VIEW



## 1. Articulation Switcher

Works just the same as on the basic view.

## 2. Side Bar

Tells you what articulation you're playing like before with some extras...

a. The Cog - Awesome tool for fine tuning & tweaking your presets (see Appendix F)

b. Keyboard Shimmier - This shifts your bank of keyswitches left or right to suit your needs, preference or performance. Simply click on the icon and drag your cursor left or right and you'll see the pink bank of keyswitches follow! Wherever you stop, those will be the new keyswitches.

c. Keyswitch to CC Selector - Use this to assign a CC controller to act as articulation/ keyswitcher. Click on "CC" and you'll be prompted to move the controller you wish to use in order for the instrument to "learn" how you'd like to select articulations.

## 3. Microphones / Mixes

Use the chips beneath the faders to load/unload different microphones and the faders above to tweak the balance of them. Turning a fader all the way down will also unload the mics, conversely turning the fader back up will reload. Left click on the faders to assign CC controllers so you can mix these live for fantastic shifts in the spatial nature of the samples. Right / Ctrl click on the mic letters to change Kontakt channel/output assignment.

Go to Appendix F for more advanced mixing options, and to Appendix E for a key of microphone acronyms.

## 4. General Controls

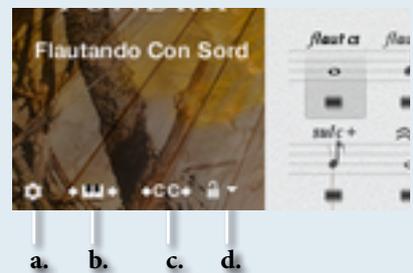
### OPTIONS

**PRESETS** - This allows you to load predetermined sets of articulations affectionately called articulation sets (see page 5) quickly and easily to optimise your system quickly for essential articulations or to start building templates using empty "shells".

**PURGE UNUSED** - This control keeps unloading any samples you are not using to keep your memory usage as low as possible.

**TRANSPOSE** - Toggle this on and tweak the number to the right to transpose your instrument. Note this is not the same as tuning, the instrument will actually offset the samples to the selected pitch. A great way to "track up" BML and make it sound bigger!

**CC MAPPED VEL(OCITY)** - Click this to control note velocity with the Dynamics slider. If a user has customised the dynamics slider, that same customised CC will control velocity now.



## ROUND ROBINS & LEGATO

NO EXTRA FUNCTIONALITY (NEIGHBOURING ZONES)- Next to this lies a pop-down menu with some amazing new functions:

- “No extra Functionality” - Is the standard default where round robins are used as they were intended.
- “Neighbouring Zones” - pulls from neighbouring zones, so for an ‘8RR’ instrument, you effectively cycle through up to 24 different sounding notes when pressing a key. It’s still just playing the one RR at a time, though giving you more of them. In legato mode this also alternates between 3 legato intervals to give a fake round robin.
- “2x Round Robin With Skip” - plays two RR simultaneously, so you get a thicker sound, it’s the equivalent of plopping two notes on top of each other in your DAW (and it drops the overall volume ~6db so that the levels remain the same but it just sounds thicker). NB THIS IS NOT AVAILABLE TO LEGATO TRANSITIONS. This plays the pairs and moves ahead by 2 RR. In this mode RR is effectively halved. eg, if you press a note it would play RR1/RR2 then RR3/RR4 ,etc.
- “Layer 2x Round Robins With No Skip” - As above but this plays a pair but doesn’t move ahead by 2 so that RR isn’t halved. So if you press a note it would play RR1/RR2, then RR2/RR3, then RR3/RR4.

ROUND ROBINS - This refers to the number of round robins (multiple recordings of the same notes that cycle around as you repeatedly play a note) your instrument uses, the number can be dragged up and down (1-8) to save you memory.

RESET FROM F0 - This enables you to control the round robin cycle (so it sounds identical every time you play) toggle on & play the key selected (default F0) to reset.

RESET ON TRANSPORT - As above but resets every time you press play! Genius!

SHORT ARTICULATIONS RT - This new option allows you to toggle whether staccato / tenuto / marcato notes have a release trigger that plays on release. This lets you tighten up staccatos or end marcatos / tenutos earlier than they were recorded.

### 5. Expression Controls

We curated some of these for the general controls view, here is the full compliment, dial these CCs into your midi controller for an infinite choice of emotional and human responses.

DYNAMICS - CC#1 This slider displays and controls which dynamic layer is live. Also controlled via the modulation wheel.

VIBRATO - CC#21 This mixes between vibrato and non, or senza vibrato.

SPEED - CC#16 Controls legato interval speed. Great to use when playing the lines into your DAW for more responsive less laggy control. Dial back on playback for greater realism.

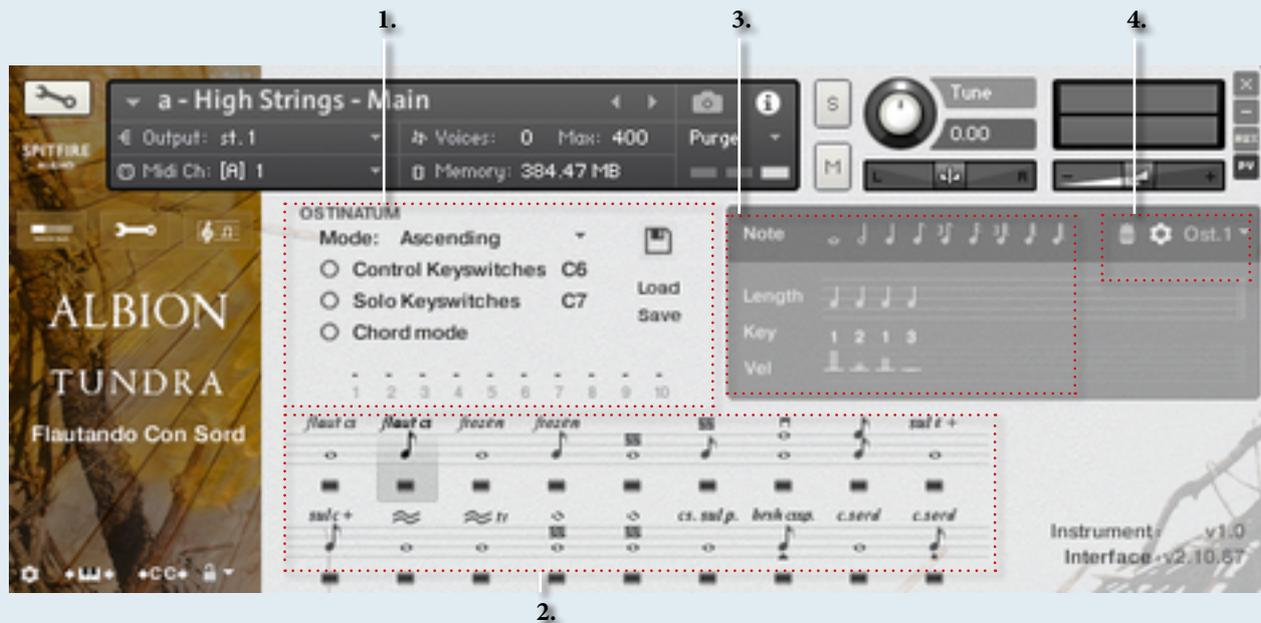
INTENSITY - CC#15 This is a great way to vary and humanise the legato articulations. Dial it all the way up for a more pronounced emotional start to each note, dial it back for a more transparent transition.

RELEASE - CC#17 Dial all the way for slow passages when using long articulations, it helps blur the transition in a natural and musical way. Dial back for more focus and detail.

TIGHTNESS - CC#18 We proudly cut our samples from the true beginning of the note, as the bow engages the string and the rosin begins to weave it’s magic. The net effect of this is laggy and sometimes very small inconsistencies in timing. Which we love! It Sounds real! But it’s not to everyone’s taste. This ingenious device allows you to tighten and loosen to your heart’s content. An excellent use of this is to dial it all the way to the right in order to play your part in. Once you’re happy adjust to taste and put a negative delay in the track header of your DAW which is the same amount as the Tightness setting.

EXPRESSION - CC#11 Displays the overall instrument volume (0-100%). Remember you can also trim your instrument volume with CC#7.

# THE OSTINATUM



Best used with short articulations this ever evolving device that can offer instant chaotic inspiration, be used to create scientifically designed rhythms, ostinati and arpeggiated sequences, to shimmering tremolando effects.

## 1. Settings

MODE - Selects how the Ostinatum will interpret your playing. Ostinatum will sequence a maximum of 10 notes (one for each of your fingers). It needs to arrange them into a note order "1-10" and this determines how it does that.

OFF - The default position Ostinatum remains dormant.

ORDER PRESSED - This will organise the notes in the order you pressed them.

ASCENDING - From bottom to top.

DESCENDING - From top to bottom.

CONTROL KEYSWITCHES - Allows you to set up a section of the keyboard that controls the state of the ostinatum. These keyswitch let you turn it off, or set the Mode.

SOLO KEYSWITCHES - Allows you to dedicate a section of the keyboard to keyswitches that solo each ostinatum track. The first KS turns all tracks on, the following KS solo each individual track.

CHORD MODE - This ignores any note order and simply plays everything polyphonically, great for measured trem style effects.

## 2. Transport

This is a real time "note order" display. So with "Ascending" mode activated a c major triad played from middle C up will show up 1=C4, 2 = E4, 3 =G4. These note numbered assignments are processed in the....

## 3. Rhythm Computer

NOTE MENU - Click these to place a note into the computer at the length you desire. Trash removes and scroll down different pre-designed sequences to the right of this. The cog allows you further fine tuning and configuration tools.

LENGTH - This displays the note lengths in sequence that you have selected from the Note Menu. Drag down here to create rest versions of the note length.

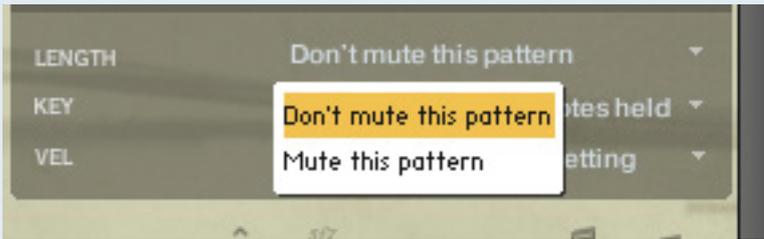
KEY - Under each note you can then select which key (displayed in real time in the Transport) this note is attached to. Scroll up and down to select.

OFFSET - Adjust these bars up and down to adjust the velocity levels of each notes, this will bring your rhythm sequence to life and provide you with all sorts of surprising syncopated accents.

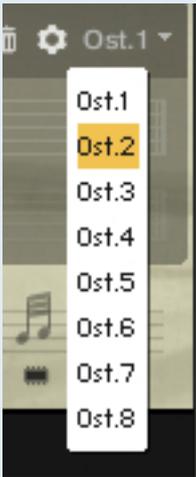
LOAD / SAVE - Allows you to store your preciousely made Ostinati.

#### 4. Pattern Selector

With the Ostinatum machine, there's a dropdown on the rhythm computer allowing you to switch between (and create) up to 8 different patterns.



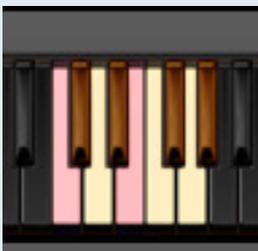
By default these layer on top of each other, but you can also configure them to be solo using either the Ostinatum track options:



Or using the 'solo keyswitch' option. With Solo Keyswitch, 9 new (customisable) keyswitches are added to the keyboard:



The very first one unmutes all tracks so that they play together. The next eight solo each individual track respectively. When you press them, everything but that keyswitch's track is muted (shown yellow on the keyswitch keyboard):



With this, you could programme crazy 16ths on track 1, lazy halves on track 2, and then keyswitch between them in your DAW.

# BRUNEL LOOPS & STEPHENSON'S MASSIVE STEAM SYNTH

## PRESETS vs DEV FOLDERS

Both Brunel Loops and Stephenson's Steam Band are presented in a series of personally curated presets by our award winning team of engineers, programmers, producers and composers. These simply load up and spring out of the box with a minimum imprint on your RAM load and system resources. eDNA gives you an awesome set of fun, easy and then quite deep tweak tools but you can go even deeper into our "vanilla" sound sets to make presets that are very much more of your own...

We have provided DEV kits which have our library of "vanilla sounds" all loaded into memory. These can be RAM hogs but are an excellent way of starting your own preset collection from scratch. Conversely if you load up a preset and like the way eDNA is gating one of the two sounds present in its two sound bays say, but you want to try a different sound or pair of sounds. It is easy to boot in the "vanilla" sound-set library by un-purging so you can browse and curate to your hearts content. Once happy re-purge to keep your preset lean.



100s of raw and warped loops from original recordings made on a dry stage featuring percussion heavy hitter Paul Clarvis playing a collection of unrecognisable relics. These are designed to be sculpted into your tracks with the unique crossfadable dynamic functionality with up to three dynamic layers per instrument and many of the loops designed for 8th, 16th and 12th style meters. All of these loops lock to your host tempo and can naturally follow even the most "rubato" of passages.



Spitfire has taken this new orchestral material and, using morphing experience garnered from the first 4 Albions and the applauded eDNA Earth range, has created a generous library of cinematic, widescreen and dynamic pads, drones, atmospheres, effects and tools. As these all are warped from organic material many music makers and producers find even the most 'synth' of presets to mix more easily with your orchestral arrangements. These are all presented in the much lauded eDNA engine which just begs to be tweaked and fiddled with.

IT'S TIME TO MEET EDNA...

## eDNA



Welcome to our eDNA engine, home to your Stephenson's Steam Band & Brunel Loops presets and instruments.

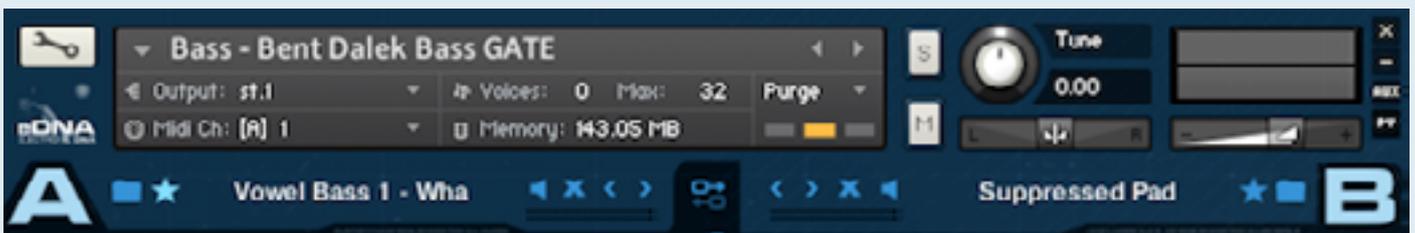
Within each instrument folder you'll find a selection of presets specially curated for you, but every time you load one of these, you're also loading a host of vanilla instruments from which these presets are made. So there's essentially two levels of browsing, preset level and instrument level.

Quick Kontakt tutorial. To load a preset or cartridge into Kontakt after (having read the quick installation guide), first open an instance of Kontakt either in standalone or within your DAW. Use the left hand pane to scroll to find eDNA. Look for the "instruments" file and either double click on the patch or cartridge you want to load or drag it into the main instrument pane. To put another instance of eDNA into this same "multi" simply repeat this process. But beware, the next instance will default to the next MIDI channel. If you wish to get rid of an instance either hit the "x" button top right or simply drag another instance over the top. We'll come back later to talk about saving your own presets.

Firstly it's important to understand the difference between the three different browsers available to you. Let's start at the very top. The Kontakt browser will get you between the different "presets" these that feature tweaked instruments via eDNA's front end. By far the best way of browsing through different optimised presets within a cartridge folder is using these arrows.

To browse the vanilla instruments you'll need to look in the sound bay browser, we'll return to this in a bit.

## Instrument Bays A & B



We love the Korg MS10, but it wasn't until we bought a Korg MS20 that we realised that if you have two oscillators, two sound sources, the end result is often greater than the sum of its parts. So with eDNA we have created two separate and then conjoined sample players in one engine. The easiest way to figure this is to imagine that you're using a pair of record decks, with two different (but maybe curiously similar) records, and eDNA is your very very feature rich deck mixer. Instrument Bay A is your left hand turntable, Instrument Bay B your right. And they both share the same record bag (for us an Instrument Cartridge) to pick from. Each sound bay has its own unique modulators and effects rack, its own unique sends to auxiliary effects, and then having been unified at the x-fader mixer stage, some universal effects and modulators.

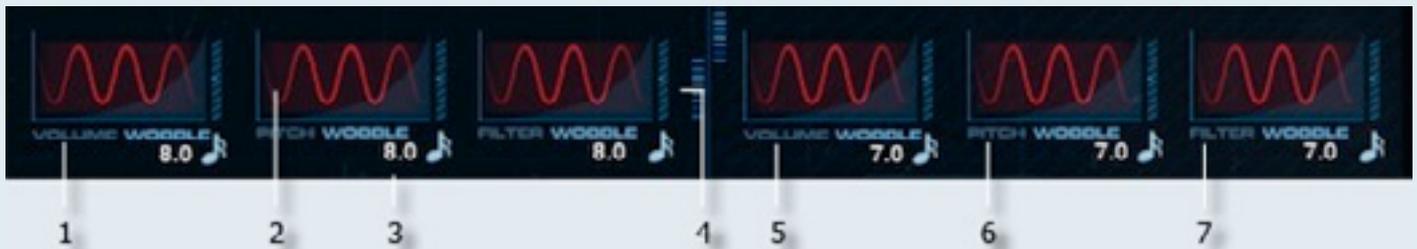
## Instrument Bay Browser



This is where you have two mini synths / sample players working side by side and independently of each other before the mixer stage.

*TOP TIP: If you wish to tweak both sets of parameters between bay A and B hold alt and edit away. Especially useful for our more spuriouly tuned instruments!*

## Wobbles

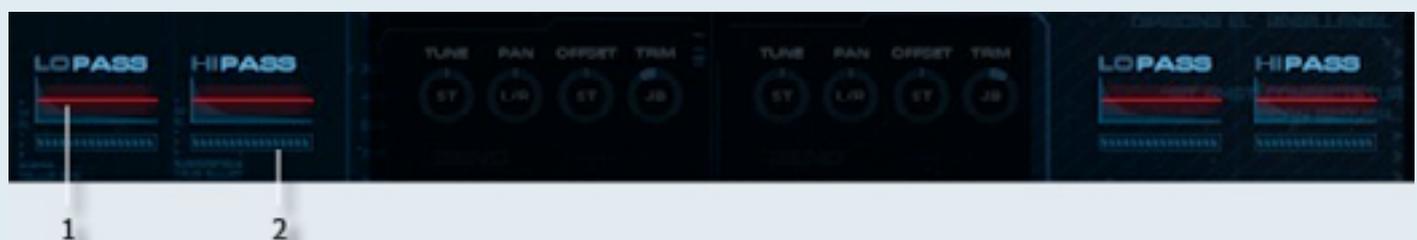


These are three LFO (low frequency oscillator) style modulators that wobble your instrument in an easy to use, intuitive and cool way.

1. Indicates which parameter the modulate controls.
2. Controls the speed, click on the waveform, hold down and move the mouse up and down to speed or slow.
3. Indicates the speed / frequency.
4. Controls the amount and direction.
5. Volume - This modulator will control the loudness of the sound in the bay, push the amount fader up to increase the volume and drop back to the nominal level. Push down to reduce the volume. Great for tremolos, and pulsing waves.
6. Pitch - Pull the amount controller all the way down and your instrument will fluctuate between the root and two octaves below. Reverse to make it go up and back to the root. When pulling the waveform to a slower speed it's great for making drops and rises.
7. Filter - This modulates both the LPF and HPF filter stages in the bay. Move the controller up for HPF, down for LPF, more about these in a minute. We recommend NOT using this if you plan to control the LPF / HPF via a controller, say your modulation wheel.

*Kontakt Tip:IP: to assign these parameters, knobs and sliders to any one of your controllers, Right / CTRL click on the parameter you wish to learn, click "Learn MIDI #CC Automation" and wiggle your controller (nice to try this with your mod wheel if this is your first time). To remove this assignment, Right / CTRL click again and click on "Remove MIDI Automation".*

## Filters



Here are two conveniently placed low pass (cuts frequencies above the LP cutoff point) and high pass filters (cuts frequencies below the cutoff point).

1. Frequency - again click on the wave display and move your mouse up or down to adjust the frequency of the filter.
2. Resonance - the little sliders beneath adjust the resonance (this basically is a little pin prick boost at the cut off point that creates a harmonic, the more resonance you add the more this pin prick is boosted. (have a go and then sweep the filter up and down, you'll know what we mean when you try it).

**Top Tip:** For that classic, phwoarb phwoarb sound find a sound that has lots of bandwidth, but especially low end. Move the lo pass resonance slider up to about three or four dots. Then assign the Lo Pass to your mod wheel. Hey presto phwoarb phwoarb!

## Tune, Pan, Offset, Trim



As with the wobbles, all knobs move by clicking and holding your mouse over them then moving your mouse up for clockwise down for anti.

1. Tune - adjusts the pitch of the sample in 50 cent (quarter tone or half semitone) steps to have a smooth dial (which moves in 5 cent steps) click SHIFT and then move the knob. Example: if you want to move this down an octave pull the knob down 1200 cents.
2. Pan - moves the instrument within the stereo spectrum left and right. This is particularly useful when using the Auto X-Fade oscillator but more of that later.
3. Offset - is the quickest way of changing the samples you're using and a great way of warping the sound, use this in conjunction with the tune knob to get the desired effect. In our other libraries it's called transpose but we feel offset is a truer description. So if you're offsetting by + 7 keys, maybe draw the tune button down -700 cents (which is 7 semi tones) this will make sure instrument is at the same pitch as before but is polling different samples.
4. Trim - is a gain stage that becomes a valuable tool in conjunction with the x-fade slider, helping you to tweak the volume balance between sound bay A & B. You'll find this particularly useful if the instruments seem to get quieter when the x-fade slider passes through the middle position, adjusting the trim of one of the instruments seems to fix this.

*TOP TIP: Holding down alt while wiggling a bay A and B knob / tuner alt will duplicate the value on the mirror bay. ie. hold alt and change the Tune and both bays sync value.*

## Bend, Clone, Glide



### BEND

These control what happens when you use the pitch bend wheel. Again a parameter that is independent between Bay A & B. So you can do some pretty cool stuff with this.

1. Amount - this controller sets the extreme bend amount up to 2400 cents.
2. % Bend - this controller then sets how much in % the pitch bends. For example, if you set the right to 2400 cents, then the left to -100% you get a bend of -2400 cents. If you put the left slider to +50% you get a bend of +1200 cents. This is so you can specify how far you want to bend and then easily bend it.

### CLONE

3. Clone - Click this to do as it suggests, clone or double the sample playback, you can then...
4. Coarse Tune - this tunes the clone up and down in 100 cent (1 semitone/halfnote) steps to +/- 1200 cents (1 octave)
5. Fine Tune - This tunes the clone further in smaller increments +/- 100 cents (1 semitone/halfnote)

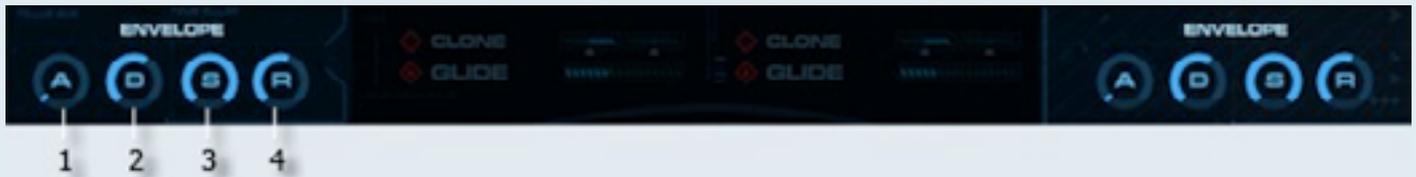
### GLIDE

This is quite simply the most genius piece of scripting. eDNA intuitively analyses the way you play and organises the transitions accordingly.

6. Glide On/Off - click to activate.
7. Glide Amount - slide this amount up to increase the "Glide" between notes.

**N.B. THE GLIDE FUNCTION WILL RENDER THE BEND SETTINGS WITHIN THAT BAY OBSOLETE AND SHADE THEM OUT AS PICTURE ABOVE.**

## ADSR



For those of you who are new to synthesis this array of controls “shapes” your sound.

1. Attack\* - This moves your sound from a percussive it to a slow entry.
2. Decay - This is the time the sound takes to drop to the “Sustain” level that the instrument then plays at. This is a great dial to automate with more percussive sounds.
3. Sustain - This sets the level at which the decay drops to. So for spiky little arpeggiator type sounds pull sustain all the way down and set the decay to taste.
4. Release - This sets the time in which it takes the sound to die away, for sounds that have a lot of room in them it may be useful to leave a long release.

## X-Fader



Yes, it hasn't escaped our notice that it looks a little bit like a Cylon's face either.

This is where the beautiful simplicity of eDNA comes to life, as default (in ‘factory’ cartridges) routed to your mod wheel and is why we feel that to get the best out of this (and pretty much all of our libraries) product you've got to give it a wiggle! So x-fader right to left adjusts the amount that you hear instrument bank A vs B. But it doesn't stop there, we've also designed a custom oscillator script that automates the slider. Click on osc, play a sound and off you go.

1. Oscillate Mixer - Switches the automated mixer on.
2. Speed - Move this up or down to effect the frequency of the oscillator. From slow evolving soundscapes to fluttering madness! All sync'd to your host DAW tempo, or the internal Kontakt tempo in standalone.
3. The X-FADER - She's got some tricks up her sleeves though, a bit of work with her and she may surprise!! Just a simple crossfader with a nice big sweep so you can fine tune your instrument blends.

*TOP TIP. When browsing instruments in the Factory carts, make sure your x-fader is +/- 100% so you can only hear the sound you're auditioning*

4. Start / Phase - This slider controls where the x-fader starts and which way it goes at first.
5. Direction Strength - You have two of these vertical sliders. They control the amount the XFader travels in each direction. The default position is 100% up on left and right. This will mean the sound from bay A&B will noticeably disappear at the apex of the oscillation. With both sliders at 50% it will simply oscillate half way in and out of each bay. These sliders don't need to be symmetrical and can create all sorts of wonderful nuance.
6. Stop On Release - this toggle returns the fader to the 50/50 position on note release. When this option is off the x-fader still returns to 50/50, but only after the sound in bay a and b have stopped playing/decayed (for example, if they have a long ADSR release).
7. XFADE Oscillator Shape - These switches toggle between the standard ‘equal’ shape moving left and right, to a more jagged shape to uni-directional.

We'll come back to this stage later to talk about how you can achieve very different effects, from simple blending to a very effective dynamic controller, a wonderful way to flick between diverse sounds to suck your listener's brain out through their nostrils or indeed a beautiful shimmering wave-like oscillation engine.

## Tune, Pan, Offset, Trim



Unlike your usual on-off scenario you have two sound banks, so 5 options A on, B on, both on, A off, B off, both off! We're probably labouring this point, easier if you just look at the very intuitive gate interface.

The top line is the gate for Bay A, the bottom for Bay B. The default position is everything "on" to gate either A or B simply click on the step you wish to gate and hey presto. You can gate in unison or alternate or indeed create some great stutter.

1. Gate Sequencer - switches the machine on or off.
2. Speed - adjusts the speed of your gate sequence in relation to your DAW tempo (or the host Kontakt tempo in standalone).
3. Transport Position - where you are in your sequence.
4. Gate Cell - This one is in the "on" position.
5. Division Slider - Need more or less gate stages than the 16 provided as default? Move the division slider. Note that this will not effect the gate speed, but the number of steps in your pattern, particularly useful when working in a 3/4 time signature or meter. To adjust the speed of your gate use pull up or down the 1x - 128x indicator to select different sub divisions of your host tempo or indeed the Kontakt internal tempo. You'll also notice when playing at its default setting that all gate lamps on creates a continuous signal without any stutters. So if you just want to gate one sound leave all the lamps for the other on!

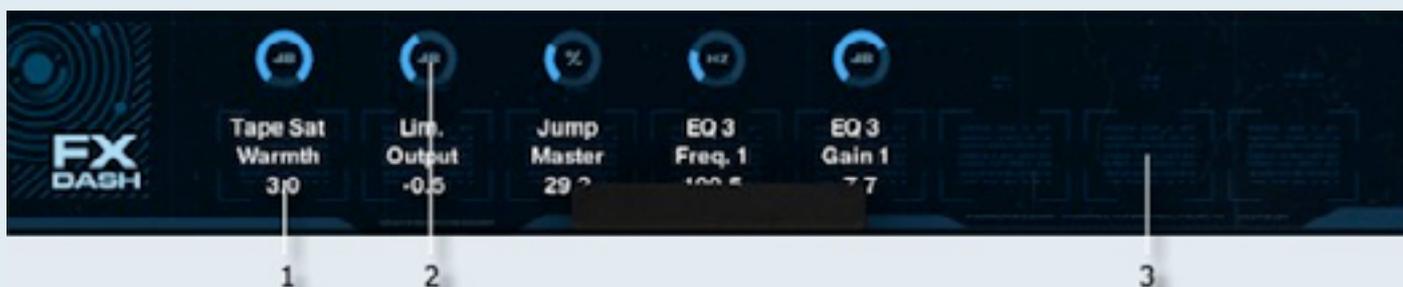
You can also control how the gate sounds.

6. Amount - This adjusts how much the gate gates! Its default position is all the way, or on, off, the more you adjust the slider the more you adjust how much the gate drops down to.
7. Gate In Smooth - changes the shape of the front of the gate and smooths it in.
8. Gate Out Smooths - the amount of tail the gate has. This is an especially cool tool to automate.
9. Stop on RLS - switches the gate engine off when you release your sound.
10. After Layer FX - This switches the gate stage between the bank FX. Something we'll come back to but if you find your gate clicking when playing lower ended material, you may find that this is the quickest and easiest fix.
11. FLIP - This swaps the sequence over so, what you programmed for B will effect A and vice versa.

We have also some quick keys that helps you tweak and experiment quickly and easily:

- Holding shift toggles a range of cells (ie press the 2nd cell, hold shift, press the 10th cell - cells 2-10 will change)
- Holding alt affects both A and B cells (same as alt and knob twiddling)

## FX Dash - A Quick Assignable Controller Stage



We'll detail this more when talking more deeply about effects. On the custom patches we have carefully curated the fx and which controllers you're most likely to get your hands on for quick and easy tweaking. Say to make the sound drier, wetter, more distorted or modulated. But more crucially this is how you would assign controllers and automate FX controls which can be found on other pages of the UI, a Kontakt feature exclusive to Spitfire and unique to the eDNA Engine.

1. Parameter Name - To remove this FX parameter ALT Click.
2. Parameter Dial - Remember to set CC value, control and automate CTRL/Right Click.
3. An Empty FX Enclosure - Waiting for your next mangler, pick carefully.

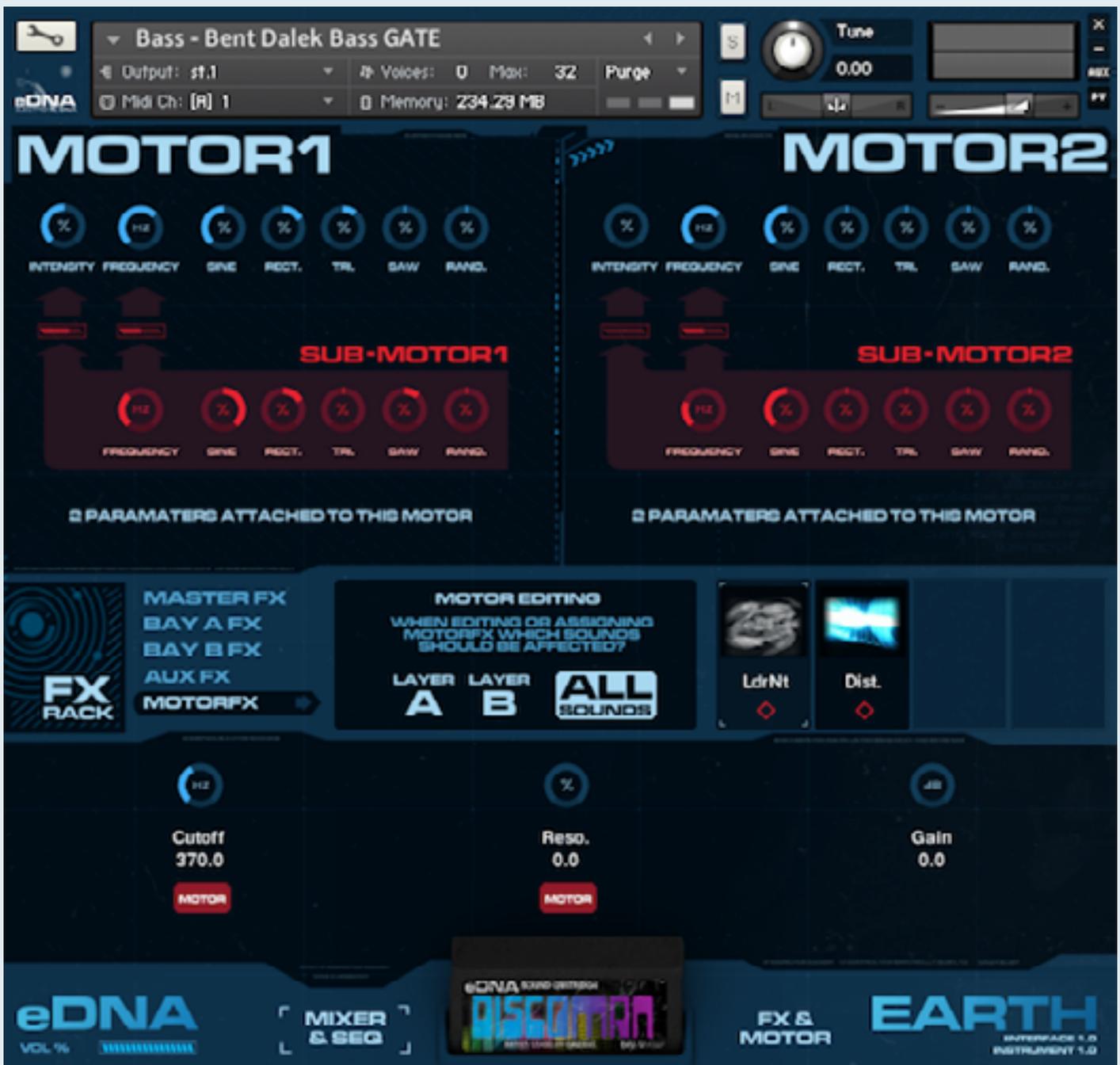
## Tune, Pan, Offset, Trim



The final stage of the eDNA user interface tells you where you're at and gets you access to the second "FX" page of the GUI.

1. Volume or Expression - This defaults to CC11 to re-assign (say to CC7) CTRL/ Right Click.
2. The Mixer Tab - On the FX pane you'll need to re-click this to get back to the main interface.
3. Cartridge Loaded - A lovely graphical indication of what collection you have loaded or what collection your individual instrument or patch belongs to.
4. FX / Motor Tab - Click this to get to the next stage in your exploration of eDNA...

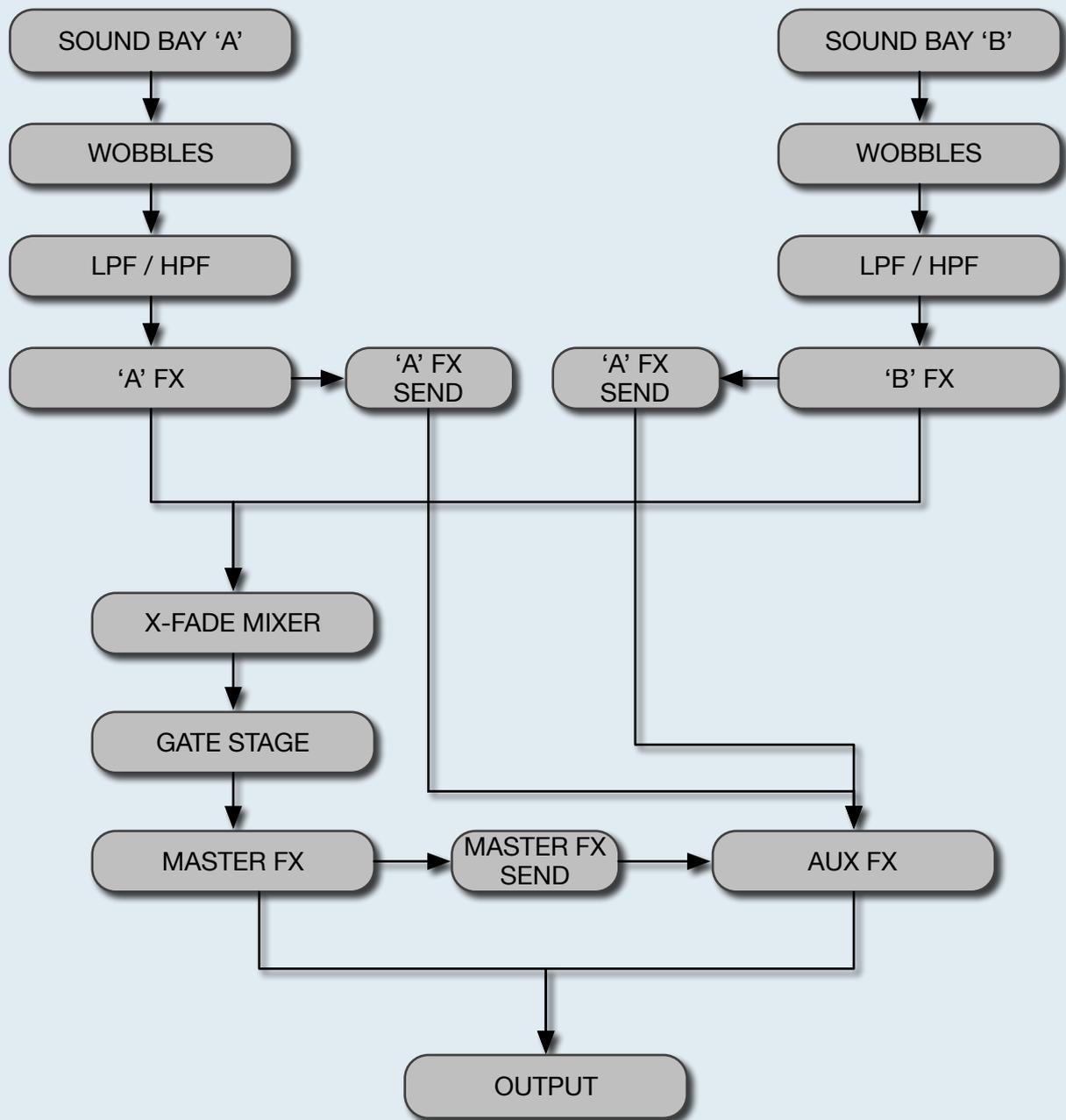
## eDNA - FX PAGE



As the eDNA engine is basically a complicated sample player, a lot of the effects one would create from traditional synthesiser modules are created here via FX plugins. We've curated a potent set of plug in effects that sit in different stages of the signal path.

To learn more about the effects signal chain it may help to look at the flow chart on the following page...

## eDNA - FX SIGNAL PATH



## FX Rack



1. FX Stage - This toggles between the 5 different FX racks available to you in EARTH.
2. Effect Icons - These elegant depictions of veterinary x-rays, signify the different effect plugins available in the 8 enclosures per rack. **CLICK ON THESE TO LOAD THE EFFECT PARAMETERS ONTO THE PLUGIN DASH BELOW.**
3. Effect Name
4. Effect Bypass - or on / off as depicted here bypassed (or off) to activate click on this button.
5. The plugin Dash - displays the plugin parameters. Click on 2. to access the parameters for the effect you want to tweak.
6. Plugin Parameter - you will NOT be able to assign a controller to this parameter directly. It must first be loaded into the Quick FX dash on the main mixer page.
7. FAV Buttons - or “favorite”, carefully these allow you to load your favourite FX onto your “Quick FX” dash. You also need to do this if you want to automate any of the effects or tweak them via a controller, say the modulation wheel. To remove simply click on the FAV button again and elect to remove. This parameter is NOT assigned to the QUICK FX dash, the rest of the parameters in this Plugin Dash are.

Going back to the Dash on the main mixer page you will now see your FAV knobs obediently waiting for your controller (remember to assign a controller, Right / CTRL click on the knob itself and wiggle your controller). You can quickly remove these direct from the dash and...

“Store as default” stores the current knob value as the ‘default’ value. You can reset a knob to its default value by holding CMD (CTRL on PC) and clicking it. Say that you like the value of the ‘IR Wet amount’ - you can store it as default. Give it a wiggle and don’t like the new value? CMD / CTRL click and it’s back to what you set as the default.

*TOP TIP: The quick FX are displayed in the order you loaded them into the QFX panel. If they get in a muddle simply unload them all (easily done on the QFX panel itself) and reload them in the order you’d like.*

To find out more about the FX plugins pre-loaded into eDNA go to appendix B.

### THE FIVE DIFFERENT FX STAGES (1.)

#### Master FX

Probably the easiest and most predictable FX to get your head around. These happen at the last stage and effect everything that is audible. So the x-fader, the gate will all have an impact on what is effected and what you hear. This is why we’ve put mainly mastering effects and some obvious modulators. The key thing to understand with the Master FX is they are layered on top of the whole “mix” of your sound, so in the case of the reverb you can have a 100% wet signal.

#### Layer FX A & B

These FX effect either sound bank A or B independently of each other and the fade slider. You can also place the gate engine before or after the layer FX, depending say if you wanted to gate a reverb or indeed keep the verb tail intact.

You will notice that the FX between the two sound banks are distinctly different. We’ve done this because that’s the beauty of having several different FX stages. So here we’re making the most of the independent sound banks and how much you can make them contrast each other. It also gives you more FX to pick from, and more veterinary x-ray pictures to display. Remember you can switch out and swap the sounds between different banks if you feel one suits a distortion type better than another for example.

## ABOUT SENDS.

You will see in A&B and the Master FX racks, one plug in enclosure is occupied by an effect called “SEND”. Clicking this on opens up the signal for your sound to route into the AUX FX rack. Click the send plugin itself and adjust the different dials in the dash to control the amount of signal gets to the specific FX within the SEND FX.

Remember, these FX will not sound unless switched on in the AUX FX Panel.

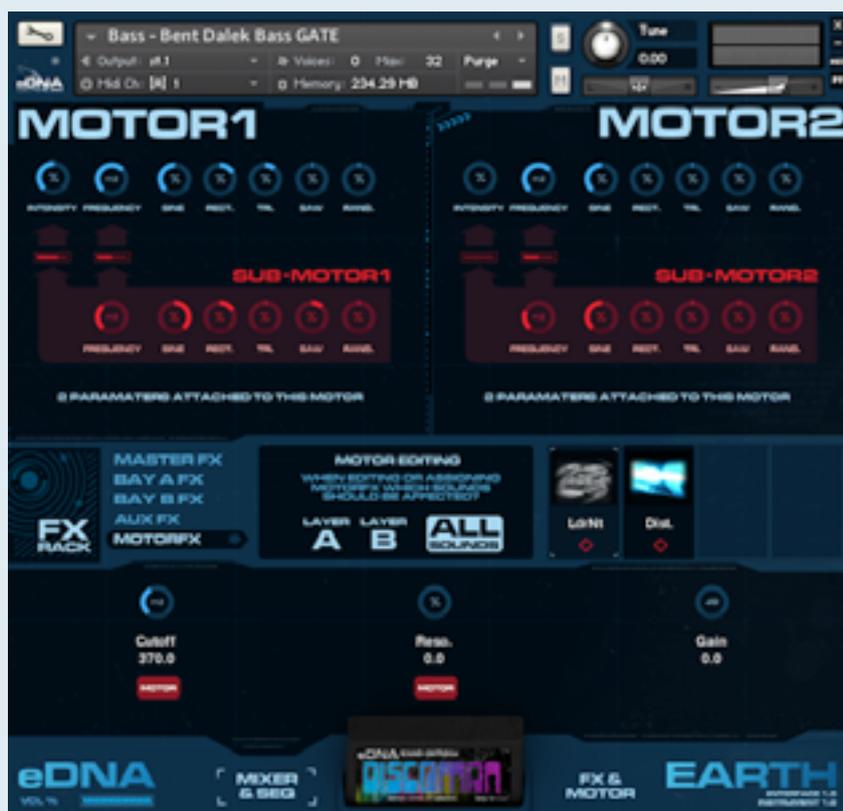
You can select specific sounds to go to the aux and the amounts they send. It is therefore advised that you do not send a signal to the same effect plugin via both the layer and master fx send as you will be duplicating the signal. Here’s an example of how to mix and match the way in which you apply aux effects to your sound.

I want to have Delay 1 on sound bay A, also little Delay 2 on sound bay A and more on B and a touch of splosh across the whole thing.

Go to all 3 sends in Layer A&B and master FX and switch them on, click on the send icon and pull down all the controllers (we default to a 0db send signal for your convenience).

In A Send, boost the delay 1 send to 0db. Then Delay 2 to say -6db. In Send B set delay 2 to 0db, then in master FX dial up the splosh. Finally go to the AUX fx and make sure these FX are switched on!. You may want to control the returns of these FX via the front panel so click on the “return” FAV button in delay 1 and 2 and the Reverb “Wet” FAV button. Now seeing as you care about the balance between A & B to Delay 2, you may also want to put the send levels to delay 2 on the front panel too. So go to A FX, click on send and assign the delay 2 send FAV button and repeat for FX B.

## Motorised FX



OK, so if you’ve got a lovely sound up that you don’t want to lose and want to experiment with these motorised FX we suggest that now would be a good stage to save your sound! The motorised FX are at first, a tricky set of tools to master.

To save your sounds in Kontakt first go to the top bar in Kontakt, change the name then click on the floppy icon, save instrument as. Make sure you don’t save over the factory shipped patches if you ever want to get back to how it was originally shipped!

We’ve selected two effects that work best with these type of techniques, you’ll notice that different cartridges have different effects loaded depending on the genre, and we have different combinations prepared in the Custom Cartridge Builders for users of the full version of Kontakt.

The basic principal is that like the x-fade mixer and the wobbles, you can also oscillate a parameter within a plugin effect.

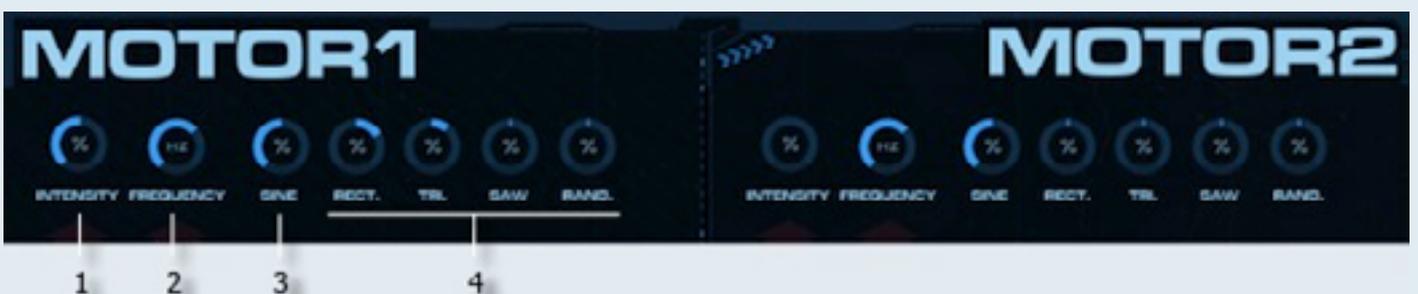
Let's try using a motor to make "ladder notch filter" cutoff pulse up and down.



- Click on motorised FX (1.)
- Click on whether you want to apply this effect to instrument bay A or B or Both, for this demo let's pick A. (2.)
- Click on the effect you want to use, and click on the icon to access its controls (3).

OK so far so good. Now have a fiddle with the different parameters and work out which one you'd like to motorise. Click on the motor beneath it and assign to the motor you want to use.

- Let's start with Motor 1 and let's use cutoff in the "ladder notch" (4.)



OK this one takes a little to get one's head around so we'll do our best to explain. The key thing is to ignore anything in red for now.

1. Intensity - this effects how much the motor is going to effect your FX parameter (in this example cutoff).
2. Frequency - controls the speed.

So pull the intensity all the way to the right and hear how the motor is dialling up your effect parameter (cutoff) from 1 - 100% (all the way to the left to all the way to the right). Pull the intensity back a bit and the parameter you're controlling will be motorised in a less extreme manner (ie 25% - 75%). Then move the frequency knob to adjust the speed.

3. & 4. The 5 knobs to the right effect the shape in which your motor controls the parameter (cutoff). So (just like wobble amounts) first try adjusting the depth of the sine (3.) wave (an equal smooth shaped wave) then to neutralise it pull the knob to the centre. Then try rectangle (4.) wave etc etc. You can then create more chaotic shapes by dialling up more than one of these dials. But things can get out of hand quite quickly so remember, if you're in trouble, pull everything back to midday.

## The Sub Motor:

OK so Motor 1 is now turning your effect parameter (cutoff) dial back and forth a measured amount at equal intervals with a shape that you're happy with. Now move the Frequency slider back and forth, that's kind of cool, changing the speed that the effect parameter (cutoff) dial moves back and forth. So let's have a go at motorising this.



1. Main Intensity to Sub - This slider controls the intensity of the sub motor control to the intensity control of the main motor ('told you it gets confusing!').
2. Main Frequency to Sub - This slider controls the intensity of the sub motor control to the frequency control of the main motor
3. Sub Motor Frequency - This then controls the speed in which you're motorising the two possible parameter within the main motor.

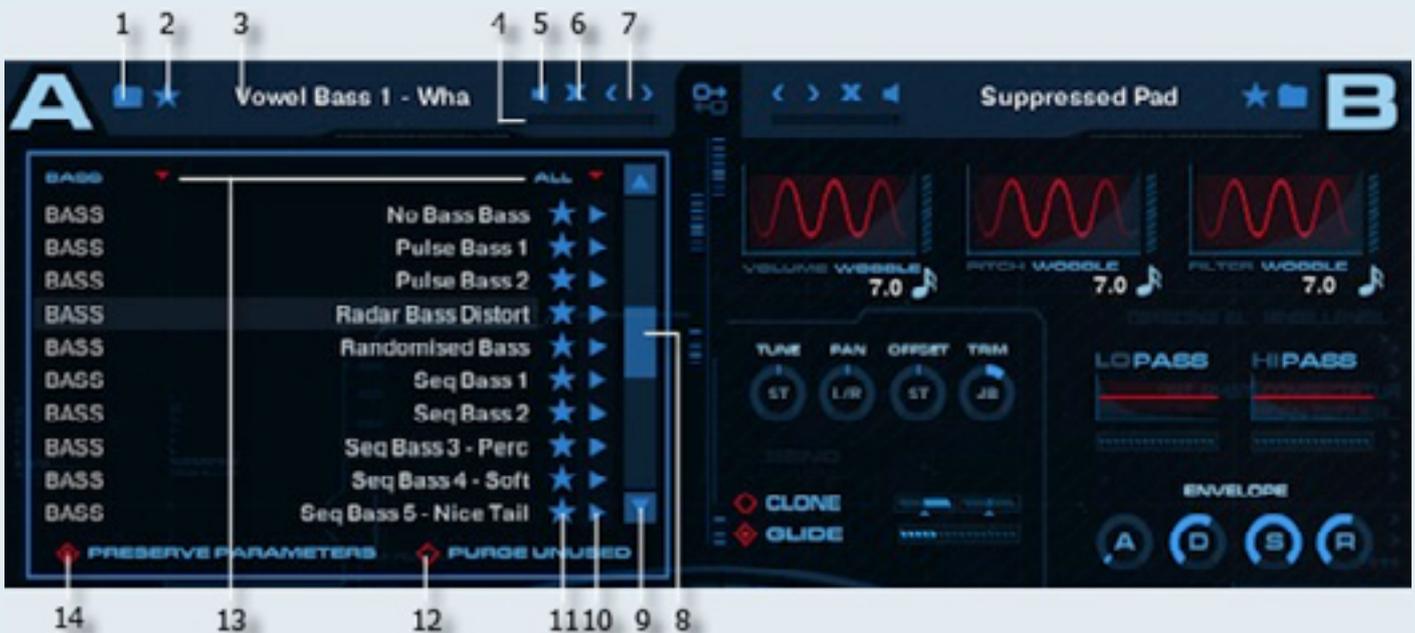
Maybe you don't want to control the frequency that your effect parameter (cutoff) is going, but the amount the intensity. You want to vary that according to the sub motor frequency (3.). Dial up the intensity slider 1. beneath the intensity knob (1.) and hear how this effects your sound. Oh and then you've got the whole range of shaping dials as with the first motor (4. & 5.). Combine this with a second motor, more effects, and all these dials, you can literally tie yourself in sonic knots.

*Top Tip. This is the one area in eDNA that we think a slightly considered approach is called for. It is quite easy to get lost in these motorised effects. We find a some of the best effects are created by using massive intensities and very slow frequencies. Carefully thinking about what you're motorising and how much you're going to motorise it by can reap rewards that sound totally awesome, anarchic and original. But it's only by careful experimentation that these rich rewards will avail themselves.*

Go appendix B to find more out about the individual FX.

## The eDNA Instrument Browser

Once you've had a play with our specially prepared presets you may want to make some of your own. There's a huge number of "Vanilla" instruments for you to work through, so let's get browsing...



Make sure you're in the mix window, now we're going to look at how the instrument bay browsers work. As a brief overview of this section each bay has.

1. Browser button - opens/closes the browser window.
2. A Red Favourites Star - this simply tags a sound you like with a star so you can find it later. (NEW IN v1.1 YOU CAN SELECT 1-5 STARS TO REFINE YOUR OPINIONS!)
3. Instrument name.
4. Level Meter - These are independent meters in each bay so you can see exactly who is outputting what.
5. Mute button - simply toggles the sound on and off independently of the xfader and/ or gate stage.
6. Purge Button - this simply empties the bay.
7. Scroll Buttons - These simply move the sound along to the next in the list, or back one, a quick and easy way to browse, but also you'll find that sounds are grouped together in similar sets so if you're happy with a sound but would like it to be maybe a little different in character, this is often a quick way of checking out if we had another stab at it, maybe something similar but a bit brighter for example.

Click on the folder next to the instrument name (1.). This will pop-down a hugely extensive list of sounds which you can scroll through browse and rate according to your tastes. Having created some 1,900+ instruments you'll imagine that naming became a bit of a task, so we've organised the sounds into categories too for your convenience.

8. Scroll Bar - holding shift slows the scroll speed, or you can use the scroll avenues for finer detective work.
9. Scroll Arrows - these allow finer browsing still.
10. Audition Buttons - check the sound before you commit! (you can also CMD click on the instrument name to preview).
11. Favourites Stars - displays sounds that you have tagged as favourites and also acts as toggles to tag more.
12. Purge Unused - Purges unused sounds from memory (anything not in an active layer). Use this to save memory when you've finished building your sound. When this is turned on 'previewing' each sound in the browser is unavailable. It defaults to off.
13. Instrument Browser Filters - allow you to refine your search

NB. In v1.1 we will also have a full database that you can browse within the Kontakt database window.

14. Preserve Parameters - preserves the current bend/glide/tune/pan/LFO settings etc. when loading a new sound. By default this is turned on and each sound will share the LFO / tune / pan that you set it. If turned off then each sound remembers its unique configuration.

To select an instrument first preview it using the play buttons. If you want to hear more we recommend you double click to load, this performs several functions; it loads the instrument into the bay, closes the browser window and moves the browser in Bay B to this selection you have made. Give it a try, select an instrument in Bay A by double clicking, then open the browser in Bay B, see how it's easy to select the next sound along.

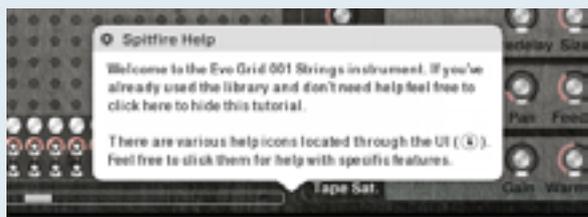
If you're clear on what type of sound you'd like you can reduce this list by clicking off "all" and selecting a different category of sound. If you want to try the different sounds simply click once on them.

*Top Tip: If you like what you hear but it's not quite right it may be worth giving it a star so you can quickly and easily see sounds that you liked the next time you return. Remember to save the patch down though, you can do this by clicking on the files icon in the top of the Kontakt interface and saving as (Maybe worth saving as suffixed with something like "browsed" so you have the original vanilla patch as shipped from Spitfire). Next time you return click on the larger "all" bar and select "favourites".*

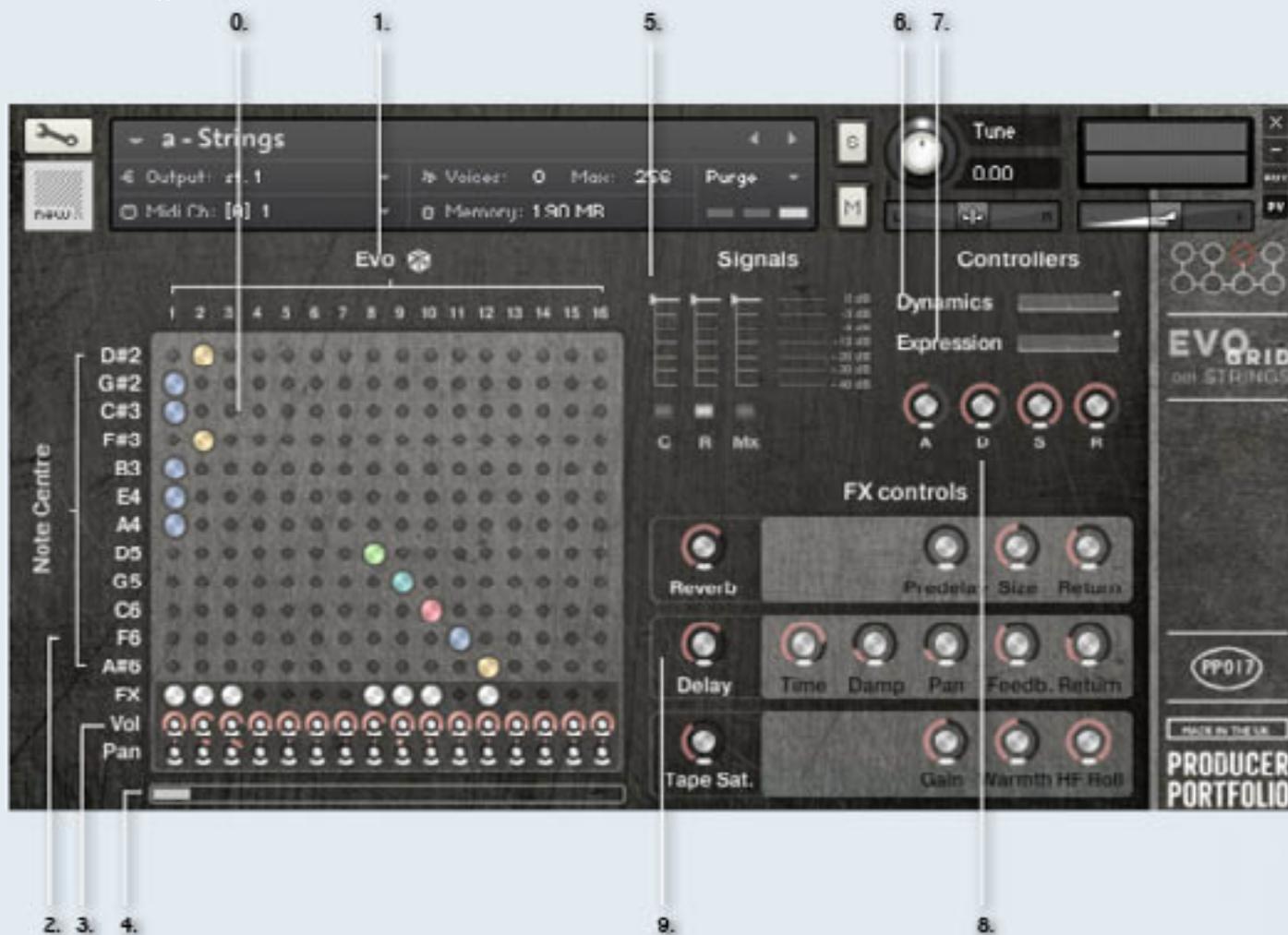
It's worth noting that you can only load any instance of an instrument into one bay\*. With this in mind you'll find a lot of our sounds are produced in pairs and quads. Say loud and soft (to create dynamic modulation via the xfader/ mod wheel) and "distant" which are true surround images made from ambient mics on the original orchestral recordings. Some of these may sound similar to the raw sound itself but load into an accompanying instance of Kontakt or within a multi and route to your surround speakers and hey presto, 3D sound! Once you've got a combination you like, it may be worth saving as a patch of your own. Again, to do this use the floppy icon on the top Kontakt bar.

# VRAL GRID INTERFACE

When you first load EVO G1 you will be presented with the option to have some balloon help.



You can disable this but as this is a completely new concept in GUI design it maybe helpful to keep it on at first. We've included the bubbles here along with the user manual text and Christian's First Look Walkthrough so you can get up and running and creating and customising with little fuss.



## 1. Evos

What are Evos? Well they're long evolutions, and when we say long we mean long, running up to a minute in length these are considerably longer than the longs you get in standard string libs. This is because they evolve, change, mutate, and return to their original state before looping. We've purposefully recorded each Evo at a different tempo so when you start pegging up different Evos on your grid and playing them together after a while the different evolutions will start to undulate against each other.

There are 48 Evos per grid of which 16 are visible at any given moment. Move the scroll bar (4.) to reveal more.

## HOT KEYS

Holding down CMD while clicking an evo will assign that evo to all note centres vertically

Holding down SHIFT while clicking an evo will draw a line from the last selected evo (ie click D#2:evo1, then hold shift and click A#6:Evo12; you'll get a diagonal line from top-left to bottom-right.)

**The Die** - Clicking on this icon just to the right of the “Evo” title, creates a completely random pattern with what we calculate to be 12 x (48 x 48 x 48... 12 times) which is in the vicinity of  $1.496 \times 10^{20}$  possibilities you’ll see that our claim of ‘virtually’ infinite is a fair one. Hit this key and it’s likely no one else on the planet is using the same map of sounds as you are.

#### HOT KEYS

Randomise - Click to assign pegs randomly to any of the 48 evolutions,

Hold down CMD/CTRL while clicking randomise to limit the random pegs to the evolutions currently shown on screen,

Hold down SHIFT while clicking randomise to have a more uniform vertical arrangement during randomisation.

### 2. Note Centre

We have recorded 12 separate samples for each Evo based across the ‘amen’ intervals (perfect 4ths) across the keyboard. The reason for this is to create an asymmetry across the octaves to again increase the inspiring surprises you’re likely to enjoy.

The only thing worth noting about this display is that if no peg is assigned to the note centre region then the note centre name will grey out. Just to help you diagnose a dead key or range!

### 3. FX, Volume, Pan

The FX peg is a simple toggle in /out affair that allows a nominal send to the FX rack (8.) to the right.

The Volume trim pots allow balancing of Evos against each other. Useful when using Evos that are simply louder by nature (sul ponts etc etc).

The Pan pot allows you to pan within the stereo field the different Evos, again especially useful if one part of the section is speaking louder than the other.

#### HOT KEYS

Holding down CMD while clicking FX will toggle all evo FX on/off

Holding down SHIFT while clicking an FX will draw a horizontal line (ie. click evo 4 FX, then hold shift and click evo 8 FX; you’ll get a line from evo FX 4-8).

Holding down ALT while changing pan/vol will affect all evos.

Holding down CMD while changing pan/vol/FX controls will reset them to default.

### 4. Scroll Bar

This simply allows you to scroll across to more Evos (so to 17-48 in the position indicated) and back again.

### 5. Mixer

Each EVO G1 instrument has three grids overlayed on top of each other. These contain the different versions of the sounds, from the raw strings recordings to the warped and ambient. You can load / purge and mix these signals together from the front panel. Each Evo has been carefully curated so they match their warped cousins. Load both instruments into a single Kontakt Multi assign the same MIDI channel and you will be able to play, mix and blend all 6 grids created for EVO G1.

Click on the ROM tabs beneath the sliders to load or purge mics and mixes. CMD click (CNTL on PC) on the mic acronyms to assign to a Kontakt output... Especially useful when creating surround signals.

### 6. Dynamics

On most of our string libs this would control the crossfade mix between differing dynamic samples, loud and soft. But because the timbral changes are handled within the original performances for EVO G1 this is just an artificial dynamic controller for those of you who can’t hear a violin without reaching for your mod wheel (MIDI CTRL 01).

### 7. Expression

A simple display that denotes any expression controller (CC11) data. This controller is favoured by the composing fraternity as the ‘loudness’ automation of choice, leaving volume (CC7) as more of a trim controller when mixing.

### 8. A.D.S.R.

Or Attack, Decay, Sustain, Release. A standard set of parameters used in most synthesizers to control the “shape” of the sound, turn attack up to really slow the sound’s entry, decay determines how quickly the sound dies off to the ‘sustain’ level which is controlled by the next knob. Finally the release knob controls how quickly the sampler ‘lets go’ of the sample when you let go of the key.

### 9. FX Deck

As EVO G1 is a library recorded in a drier environment we thought it best to specially curate some easy to use and effective FX from the Kontakt host FX engine. For more details on these controls please consult your Kontakt user manual. If you wish to punch out these effects and use your own in your DAW or via outboard check point 3.

## **Appendix A - Recommended Technical Specs**

IF YOU PLAN TO USE THIS LIBRARY WITH THE FULL VERSION OF KONTAKT PLEASE MAKE SURE YOU HAVE THE LATEST VERSION 5.5+ INSTALLED

### **RECOMMENDED SPEC:**

The better your computer, the better the performance of any Spitfire module. But not to worry if you're not spec'd up to the hilt. All programs are provided with a set of parameters that enable you to tone back the CPU demands of any given patch (namely Mic positions, reduce whilst writing, add back in and freeze).

Mac OS X 10.9, 10.10 or 10.11.1 (latest update, 64-bit only), Intel Core 2 Duo, 4 GB RAM

Windows 7, Windows 8 or Windows 10 (latest Service Pack, 32/64-bit), Intel Core 2 Duo or AMD Athlon™ 64 X2, 4 GB RAM

## Appendix B - Kontakt vs Kontakt Player

Kontakt Player is a free version of the Kontakt sample playback engine available to download:

<https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5-player/free-download/>

It works with libraries that the developer has paid a license fee for. Essentially, we've bought you this playback engine.

The Kontakt player gives you full access to all the sounds and all the editable parameters on the front panel. Also, unlike non-Player libraries, these libraries will also have a banner that appears on the Kontakt Libraries pane.

If you want to go deeper into editing you'll need a full version. As you will already own the free Kontakt player and have bought one of our 'player' libraries you will be eligible for a discount upgrade to Kontakt via the NI website. See here for more details:

<https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/pricing/crossgrade-offer/>

If the library you want to use is NOT a 'Player' library (the majority of our libraries) then you need to buy the full retail version of Kontakt.

Then you can also load 'non-Player' libraries like our BML range, Spitfire LABS, Harp, Piano, Harpsichord, Solo Strings etc. Please note that non-Player library instruments will not appear on the Kontakt libraries pane and so can't be added as a library as Player libraries need to be. Instead, these libraries will simply need to be loaded via the Kontakt files browser or alternatively you can add the library as a favourite to the Kontakt Quick Load window.

## Appendix D - eDNA Plugins

**EQ3** - This EQ is a 3-Band, parametric EQ that allows you to boost or cut any frequency range throughout the entire spectrum by up to 18db, with adjustable Bandwidth parameters allowing you to choose between 'surgical' EQ-ing or gentle corrections.

**Jump** - The 'Jump' effect simulates the classic tone for British guitar amplifiers. It is ideal for creating smooth, singing lead sounds.

**Limiter** - A form of compressors with a ratio of one to infinity, a threshold just below the maximum level and a very short attack time. A limiter acts as a safety net to keep short signal peaks from overloading the system, which would result in audio clipping.

**Tape Saturator** - The Tape Saturator emulates the soft compression and distortion of recording to tape. It is mainly used to lightly add warmth and colouring to the sound, or alternatively, to add aggressive distortion.

**Distortion** - This module achieves Distortion by clipping or rounding off high sample value, therefore it simulates the behaviour of overloaded tube circuits or transistors by adding artificial harmonics to a sound.

**Lo-Fi** - This module adds various digital artefacts such as aliasing or quantising noise, to clean the signal. It is ideal for roughing up sounds that would otherwise be too plain and featureless, or to recreate those classic 8Bit video game sounds.

**Saturation** - A basic amplifier with a non-linear characteristic. This allows you to recreate the effect of tape saturation, which causes an increase of high-level energy in your signal.

**Stereo Modeller** - This allows you to control the width of your signal's stereo base, change the panning and also allows you to create a pseudo-stereo signal from mono sources.

**Delay** - This Delay effect is a process that creates a carbon copy of the sound and repeats it back after a period of time. It can optionally be synced to the tempo and provides an adjustable feedback level, a low-pass filter and a pan control for 'ping-pong' echo effects. Delay times lower than 20ms are not discernible as delays, but can produce interesting comb filtering effects.

**Chorus** - This is a method of adding "thickness" to the audio signal by splitting it up and detuning one version in relation to the original. Separate LFOs with an adjustable phase relationship detune each stereo channel independently to create a wide-panorama effect.

**Flanger** - This module splits the audio signal and delays one version in relation to the original signal. By modulating the delay time, as well as feeding an adjustable amount of the output signal back into the input, the Flanger creates a characteristic 'whoosh' sound. The Flanger module uses a separate LFO for each stereo channel, which the phase relationship between both LFOs being adjustable.

**Phaser** - This effect continually changes the phase relationships in the signal with an all-pass filter. As a result comb filtering occurs, which attenuates some frequencies while boosting others. The sound is of a similar nature to the Flanger effect, but it is more subtle.

**Convolution** - This is a type of reverb that allows you to replicate the acoustical behaviour of a linear system; such as a room, a speaker, a harp or even a hardware reverb unit, for your own signals. To accomplish this, a short audio recording of a wide-band signal played through a system is fed into the convolution processor. This recording is usually a normal audio file called an 'Impulse Response' (or 'IR'). Convolution reverb is best known for achieving highly realistic reverbs. The convolution processor included in Kontakt fully supports multichannel signal flow, allowing you to use surround impulse responses if desired. It can be used within the 'Instrument Insert Effects', and the 'Instrument Send Effects' chances, or as an 'Output effect.'

**Reverb** - This reverb is algorithmic, it simulates the natural reverberation that occurs when a sound source is placed in an acoustic environment, this adding a feeling of spaciousness to the sound.

**Formant I & II** - Formants are acoustic resonances, the term often applies to the phonetics of the human speech. Formant Filters are designed to mimic the frequency response of the human vocal tract and as a result, these types of filters are used to emulate the 'talk box' effect.

**Vowel A** - This module is similar to a Formant Filters as it also simulates the resonant frequencies of the human vocal tract in regards to forming a vowel sounds. The throat and mouth cavities will change their shape in order to create a complex, natural filter that emphasis certain frequencies in the sound created by our vocal chords. These characteristics allow human hearing to discern between different vowels, and are being replicated by this filter.

**Vowel B** - The Vowel B module is very similar to the Vowel A module, but it has a slightly different sonic characteristic.

**Ladder Peak** - Based on the classic ladder circuit use in early synthesis, these filters are the first choice for recreating synthetic sounds. The Peak is a filter that accents frequencies at the cutoff.

**Ladder Notch** - The 'Ladder Notch' module is very similar to the 'Ladder Peak' module with the difference being that the Notch cuts two narrow bands of frequencies either side of the cutoff.

## Appendix E - Microphones & Mix Acronyms

### STANDARD ARRAY:

C - Close mics, a selection of valve mics placed for optimum focus close to the instruments. This mic control is great to add in for added definition and at times a bit of “rounding of sound”, in isolation it can be a way of achieving a more intimate or pop-music style sound.

T - Tree. This refers to the “Decca” tree of three mics placed above the conductors podium. In the case of Sable; 3 priceless vintage Neumann M50s. These are placed to give the ultimate sound of the band, the hall and are the default mic position that loads in with each patch.

A - Ambient. A set of condenser mics placed high up in the gallery away from the band. This mic position gives a massive amount of stereo spread and room sound over the band. Great mixed in with the other mics but also ideal fed to your Ls & Rs speaker sends for true surround information.

O - Outriggers, a set of vintage mics placed wide apart to the left and right of the tree. These give a similar balance of room and band but with a broader stereo spread. The effect of this mic is somewhere between the tree and ambient mics.

## Appendix F - Advanced Use

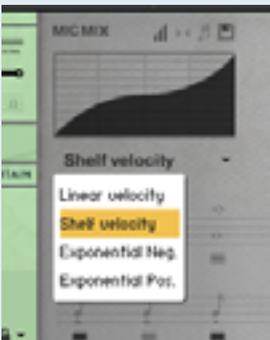
### F1 - ADVANCED - DEEPER MIXING OPTIONS

Getting right in there...



FOR BASIC MIC MIXER OPERATION GO HERE

#### 1. VELOCITY RESPONSE



Pick from 4 different velocity curves to suit your controller.

#### 2. CLOSE MIC PAN COLLAPSER



The close mics are a stereo mix and this collapser allows you to refine how the stereo image is handled. All our musicians are recorded in-situ, ie where they would be seated on a standard scoring session, giving you a fantastic spectral spread when putting all the elements together, which helps define the detail. This panning tool helps you to manage and tweak this to your own tastes / needs.

**STEREO WIDTH** - Allows you to control how far the stereo image reaches. All the way to the right would be like having your two pan pots panned hard. All the way to the left would be like having both pots centre,

**STEREO PAN** - Then allows you to control where in the pan field the centre of this image is placed.

### 3. MICROPHONE MIX TO ARTICULATION LINKER

The small notation symbol locks the microphone mix or tweak you've made to the articulation selected. This means if you want to boost any perceived inconsistencies in volume between say pizzicato and col legno you can. Or indeed if you want to roll off some of the hall ambience for a short versus the long articulations this is how to fine tune.

### 4. MIXER PRESETS



A new way to transfer mixer settings between patches, or save and load presets to disk.

**AUTOMATING MIXER FADERS** - Each mixer fader has a dedicated #CC. To change this to suit your MIDI controller or surface, simply right click (on PC) or command click (on Mac) on the fader itself to "learn" the new controller.

**ROUTING MIC MIXES** - To route each mic mixer channel to unique Kontakt channels simply click on the Mic acronym. Great for putting your ambient mics in the surround for example. Also good for tracklaying individual mics for your engineer to control in your final mix sessions.

## Appendix F - Advanced Use Cont'd

### F2 - SIDE BAR TWEAKERS

Making your library your own:



FOR BASIC FUNCTIONS OF SIDE BAR GO HERE.

KEY:

1. “THE COG” - An awesome tool for fine tuning and tweaking your patches.
2. “KEYBOARD SHIMMIER” - This shifts your bank of keyswitches left or right to suit your needs, preference or performance. Simply click on the icon and drag your cursor left or right and you’ll see the pink bank of keyswitches follow! Wherever you stop, those will be the new keyswitches.
3. “KEYSWITCH TO CC SELECTOR” - Use this to assign a CC controller to act as articulation/ keyswitcher. Click on “CC” and you’ll be prompted to move the controller you wish to use in order for the instrument to “learn” how you’d like to select articulations.
4. “ARTICULATION LOCKER” - We all like to select articulations and use our templates in different ways. Many composers like to have a single articulation loaded to each instance of an instrument for example. So it’s worth locking off the articulation switching once you’ve selected one so you don’t have sounds disappearing from slaves way off in your machine rooms!

Unlocked Artic’ - Is the standard setting, select articulations via the front panel or associated keyswitch.

Locked Artic’ - This locks your articulation so it doesn’t change either via front panel or keyswitch.

Locked Keyswitch - This locks your articulation via keyswitch but you’re free to switch via the front panel.

Locked to UACC - This is a new standard being developed by Spitfire and detailed on page 25. The default controller channel is #32 but this can be changed by right/ CTRL clicking on the padlock.

Locked to UACC KS - The functionality of UACC with the flexibility of a keyswitch. When activate, a single keyswitch is available. Pressing this key at varying velocities (according to UACC standards) changes articulation.

Shared Keyswitches - In larger libraries, this setting allows you to spread keyswitches across multiple palettes of articulations.

## Appendix F - Advanced Use Cont'd

### F3 - ARTICULATION SWITCHING

#### LAYERING:

To layer sounds within the articulation set simply 'SHIFT' click on your next articulation. Rather than introducing a multitude of more confusing 'layered articulation' options, the front panel shows (and edits) only the most recently layered articulation.

#### TRIGGERING:

For triggering options CTRL or COMMAND click on the articulation icon:



“By CC Range” - This will allow you to use a single controller channel to switch between artics. This allows you to fine tune on your MIDI event list, or to use a midi controller fader or indeed button with a single range assigned to select your desired artic. Our default setting is guided by our UACC protocol.

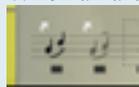
“By KS” - The default setting. BML is scripted so it won't switch mid note but wait 'til the next not-on event before switching. This means you're able to play the key switch say whilst playing a long note and have it switch to a staccato on your next note.

“By Velocity Range” - This is great for designing intelligent staccato patches that say become staccatissimo when you hit the keyboard really hard. A second menu will open up giving you options for this function.

“By MIDI Channel” - Ingeiously turns your single instance of BML into a multi timbral instrument. MIDI channel lets the instrument change articulation based on the incoming MIDI channel. To use, pop the instrument Midi Ch. to 'Omni' mode in Kontakt. The single instance can now be configured to play based on the incoming MIDI channel. For example. Set staccatos to channel 1, longs to channel 2 , legato to channel 3.

“By Speed Of Playing” - A revolutionary new function that allows you to switch articulations based on the playing speed of your performance. When selected, it provides options to specify a triggering time-range in milliseconds. (See right hand menu above). For example, you could specify that 'fast legato' should be activated if the time between playing each interval is between 0 and 250ms (pictured above). Fully configurable to suit the user's playing style and needs and can be deactivated by unchecking 'Enabled' (or if not in the artic switching screen, simply holding ALT/MENU and clicking the articulation icon on the stanza).

When an articulation has a 'trigger' assigned to it, it shows a little shortcut icon above to let you know that it has been customised.

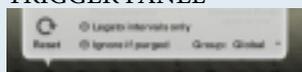


Holding down ALT / MENU (PC / MAC) and clicking an articulation with this shortcut above it will toggle the trigger between enabled and disabled.



It's a handy way to quickly turn off legato speed/velocity switching if the user doesn't want it.

#### TRIGGER PANEL



Reset will clear the trigger for this articulation, allowing you to set it to a different type or disable it permanently.

Legato intervals only will only activate this trigger if the notes played are legato intervals.

Ignore if purged means that this trigger will only occur if the articulation is not purged.

Group allows you to group together triggers. When set, the trigger only occurs when an articulation in the same group is currently active. For example, use this if you wanted to set up speed triggers on legato articulations, but don't want them to trigger if you have staccatos / marcato / shorts selected.

## Appendix F - Advanced Use - Cont'd

### F4 - THE PUNCH COG

Ultimate customisation!



As we record our samples like you would a film score, we actively encourage our musicians to make every note sound different. To play with the flair that would be expected from them on a score shoot. We like tuning imperfections, little squeeks, the odd breath of a human! We like our pizzicatos loose and for the odd “rub” between players when playing transitions.

However much we apply our exacting taste principals onto our range we’re never going to meet with everyone’s preferred quality bar, or needs and expectations of a project. So we present to you Blake Robinson’s coup de grace.... A way of punching notes in and out like we used to in the old days. A way of customising your library to fit your taste and needs.

If there is a round robin you don’t like or a long note where the tuning is a bit fruity. Switch to the articulation you were using. Play until you find the Round Robin you don’t like and then stop. Observe the pictured cog bottom left of the front panel/ UI, and click on it to get this dialogue:



HOW SHOULD WE TWEAK? - Then your last note played will be displayed, if this is correct get tweaking.

SKIP THIS RR - Will simply make it always jump along to the next round robin in the cycle.

ADJUST TUNE / VOL - Will adjust the tuning and or volume of the last played note.

ADJUST RELEASE - This will alter the level of the release trigger (which will effect the percieved decay of that note).

SAMPLE START - If it feels loose adjust to the right, tight adjust to the left (NB this is only available in full “cog” patches).

REMOVE ALL NOTE TWEAKS - This removes all custom changes you have made with the Cog.