

USER MANUAL

# BBC SYMPHONY ORCHESTRA

SPITFIRE AUDIO

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# INTRODUCTION

Thank you for purchasing BBC Symphony Orchestra. In partnership with BBC Studios and the world-famous BBC Symphony Orchestra, Spitfire Audio has finally been able to capture what no other sample library has before: a family of astoundingly accomplished players that has shared the stage for thousands of hours, whose musical telepathy and 90-year heritage of performances and recordings is a national and international treasure. BBC Symphony Orchestra has been expertly recorded by the Spitfire team at London's famous Maida Vale Studios — home of the BBCSO, and host to The Beatles, Hendrix and Bowie. Our most expansive and ambitious project to date, this landmark library is the stuff of composing dreams: strings, brass, woodwind and percussion, all housed inside our award-winning standalone plugin.

## QUICK SPECS

### MAC SYSTEM REQUIREMENTS

Mac OS X 10.10 or later

Minimum: 2.8GHz i5 (quad-core), 8GB RAM

Recommended: 2.8GHz i7 (six-core), 16GB RAM

### PC SYSTEM REQUIREMENTS

Windows 7, Windows 8, or Windows 10 (latest Service Pack, 64-bit)

Minimum: Intel Core 2.8GHz i5 (quad-core) or AMD Ryzen 5

Recommended: Intel 2.8GHz i7 (six-core) or AMD R7 2700

- Over 1,000,000 Samples
- Disk space required: 565 GB
- Disk space required during install: 570 GB
- 418 Techniques
- 55 Presets
  
- Dedicated plugin (AU, VST2, VST3, AAX)
  
- Deep sampled: multiple instruments, techniques, dynamics, round robins, release triggers, and true recorded legato.

# WELCOME

## A TRULY COHESIVE SOUND

*“To suddenly have all I need at my fingertips in one single plugin is a game changer.”*

– Christian Henson, Spitfire Audio Founder

Orchestral samples have become an essential component of modern scoring, and the range of libraries available is vast. But what if a single product could become the universal starting point for a generation of composers?

We’ve taken over a decade of sampling experience to give you this comprehensive orchestral library of epic proportions — comprising over 200 hours of recordings, to give you a staggering 1,000,000+ samples at your fingertips, sounding exactly as they would if you had the orchestra in the room. We have recorded 55 different instruments on world-class Millennia preamps, including groups and soloists, 418 techniques including 33 legatos, for each melodic instrument. The product also includes a staggering 20 signals, including eleven microphone positions, two stereo mixes, a set of signals designed for use in Dolby Atmos mixing, plus five spill signals, for added realism and ultimate control. This is your definitive orchestra, made accessible through cutting edge technology, all in one package.

Maida Vale Studios has a rich musical history. Built in 1909, it was one of the BBC’s earliest premises — the centre of the BBC News operation during World War II, and the home of the BBC Symphony Orchestra since 1934.

With a beautiful, modern design by ustwo (Monument Valley, DICE), BBC Symphony Orchestra is housed in our award-winning standalone plugin (VST2, VST3, AU, AAX & NKS ready) developed primarily for composers, by composers — easy to use, intuitive and inspiring.

## SHARE & COLLABORATE

Up until now it’s been difficult in the film composer world to share and collaborate — but that, with this universal starting point, changes now. This library allows you to mock up your scores quickly and with ease, so you can share your work with your fellow composers, collaborators and directors.

## THIS IS JUST THE BEGINNING

The founding values of the BBC — to inform, educate and entertain — could not resonate more richly with Spitfire, making this partnership a truly exciting and defining moment. Beyond a new standard for orchestral sample libraries lies a blueprint for an ongoing collaboration with the BBC that will provide resources — online and live — for a community of musicians ready to produce the orchestral music and blockbuster scores of the future. BBC Symphony Orchestra is just the beginning...

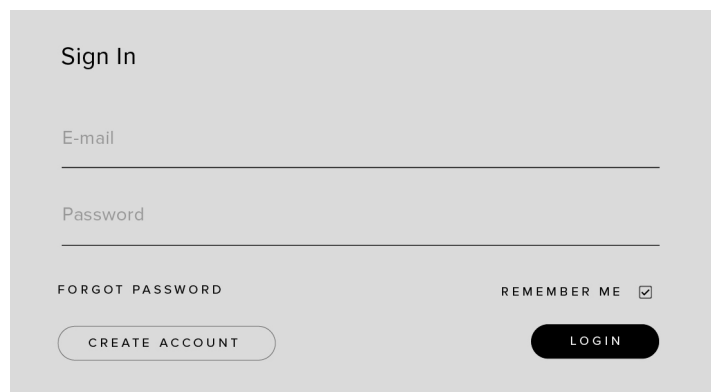
# DOWNLOADING & INSTALLING

Thank you for buying BBC Symphony Orchestra. If you are a total newbie to this kind of thing you can get up to speed here: <https://www.spitfireaudio.com/about/>

First though, grab the 'Spitfire Audio App' from this link, this app will enable you to download the library: <http://www.spitfireaudio.com/info/library-manager/>

## THE SPITFIRE AUDIO APP

When you launch the app you will be prompted to login using the same details you use at our site. Then you'll see the page pictured below:



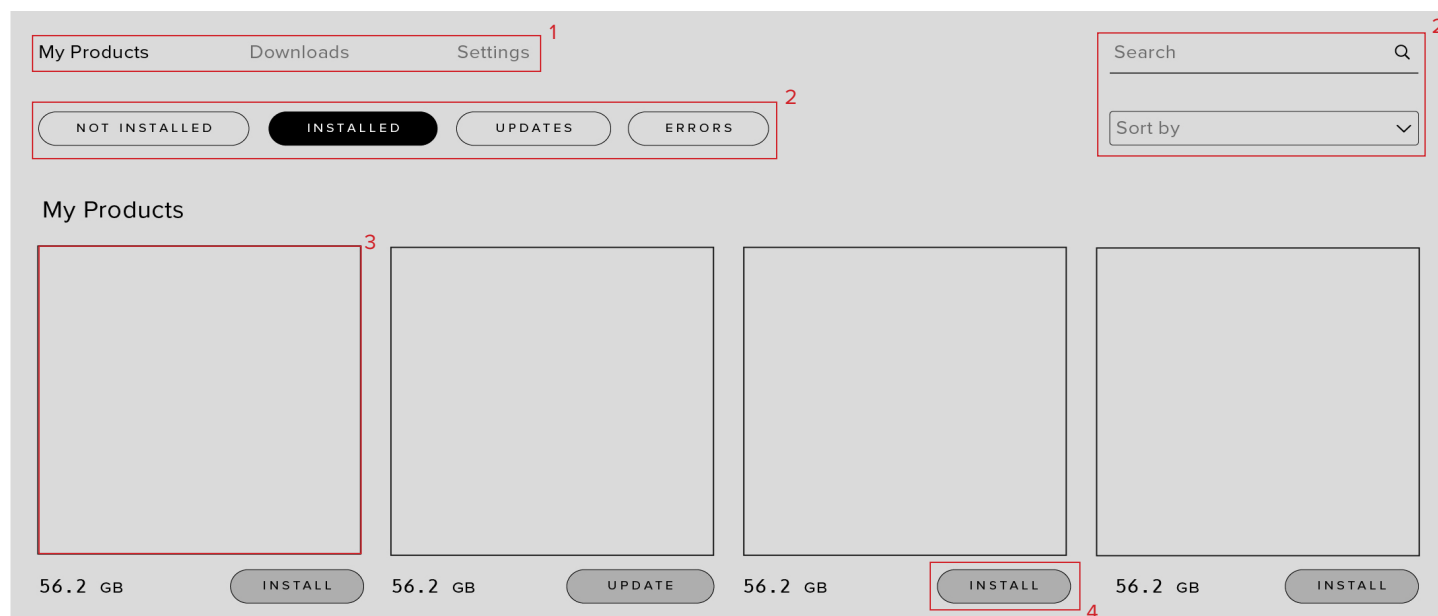
**1. TABS** the default tab is My Products, which shows all of the libraries on your Spitfire Account. Downloads will show currently downloading products and Preferences allows you to set default locations and

behaviours as described on the next page.

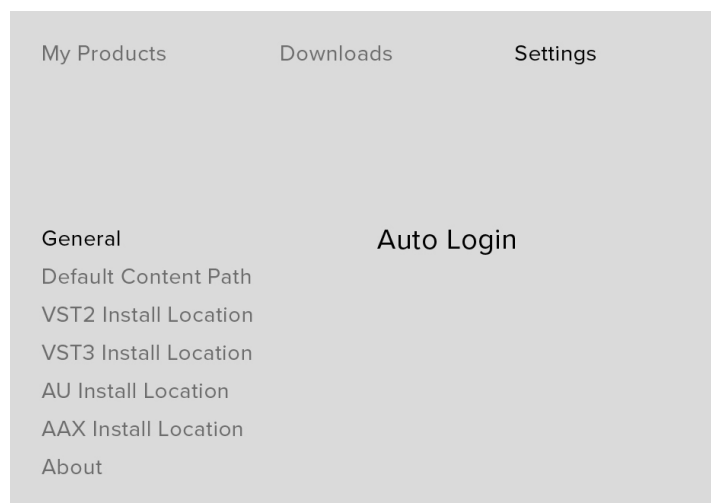
**2. FILTERS** clicking these filters will quickly display products you've yet to install, those already installed, and any available updates. Clicking again will remove the filter.

**3. LIBRARY** All libraries and plugins in your collection will appear with their artwork on the My Products tab. Clicking this artwork will open the product page. This is a great place to find information such as system requirements and instructions as well as where to find Reset and Repair options.

**4. INSTALL/UPDATE** buttons allow you to quickly start a download directly from the My Products tab, instead of clicking through to the Library. Next to the button the size of the download is shown.

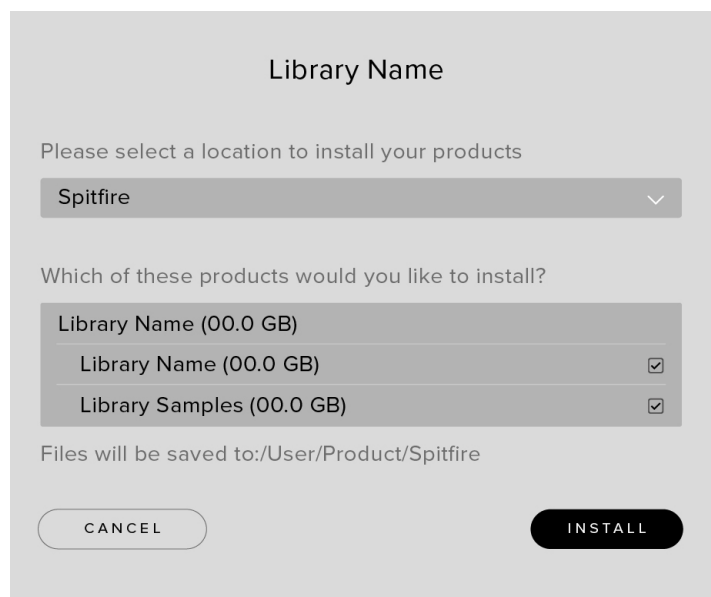


# THE SPITFIRE APP PREFERENCES



If this is your first time using the Spitfire Audio App for a download you may wish to first navigate to the Settings tab. Here you can set the Default Content location as the location where you wish to download your libraries too. Also you can set the default VST2 install location to the folder where your DAW expects to find VST files.

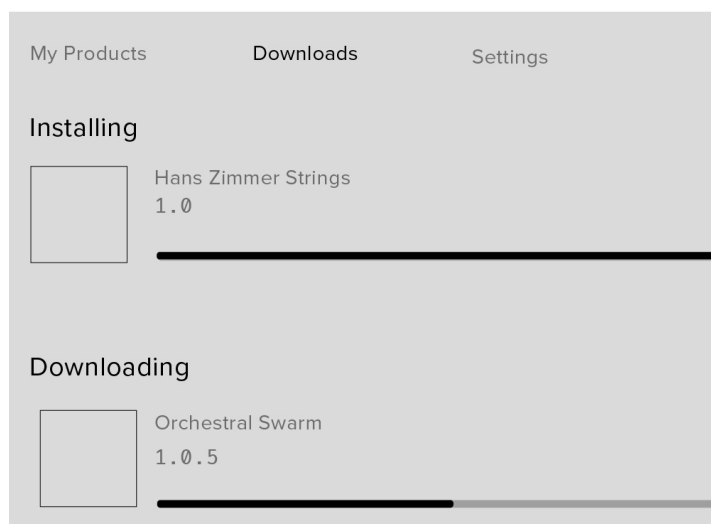
Here you can also enable Auto Login to save time in future.



Once you are happy with your preferences, simply click the Install button for the library. This is either directly on My Products tab under the library artwork, or it can be found by clicking on the library image and clicking the install button on the page that appears.

Clicking either of these will prompt you for a location, the default content location in your preferences will be suggested but you can select any suitable location.

Once you are happy with the location click Download. Ensure for BBC SO, all three boxes are checked.



After clicking download you will be directed to the Downloads tab where you can watch the progress if you like. You can of course leave the Downloads tab and start other downloads but at this point you should leave the Spitfire App open until the download completes.

# THE DEDICATED PLUGIN

Unlike many Spitfire libraries, you don't need Kontakt Player or the full Kontakt to run this library. BBC Symphony Orchestra is its own, all new, self contained plugin built for VST, AU and AAX, so once you've downloaded and installed you're ready to go.

## LOGIC PRO X

- On a fresh project, a track dialogue box will automatically pop up
- Choose 'Software Instrument', and then look beneath the 'Instrument' dropdown
- Select AU Instruments > Spitfire Audio > BBC Symphony Orchestra.

## CUBASE

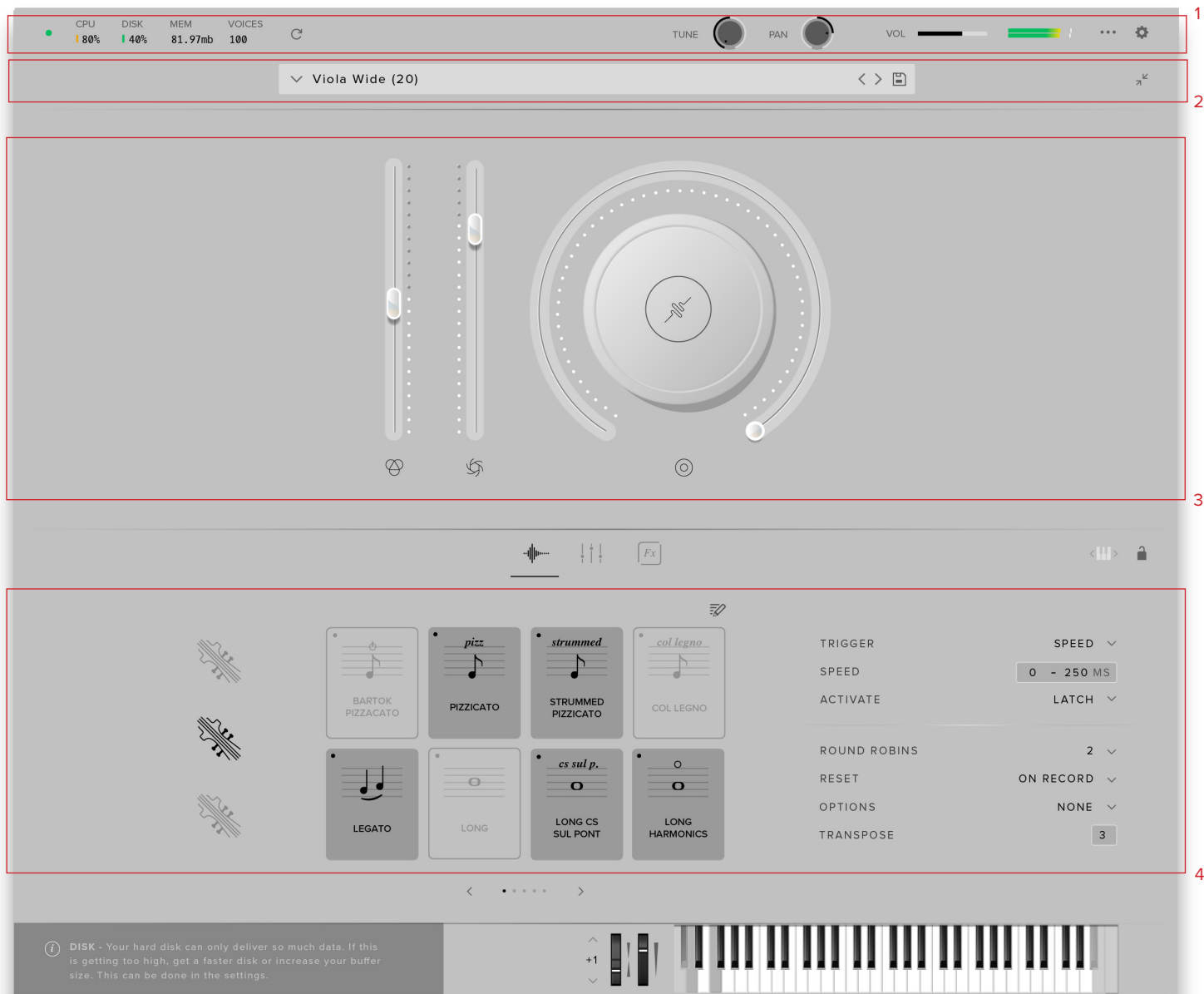
- Right-click the track window and choose 'Add Instrument Track'
- Underneath the 'Instrument' dropdown, choose BBC Symphony Orchestra
- Select 'Add Track'

## PRO TOOLS

- Go to the 'Track' menu at the top of the screen, and select 'New'
- In the pop-up, select Stereo and Instrument Track, and press 'Create'
- In the first Insert slot, select multichannel plug-in and 'Instrument'
- You should see the BBC Symphony Orchestra available as an option

# HAVE A LOOK AROUND

## THE BBC SO INTERFACE



### OPENING YOUR FIRST PRESETS

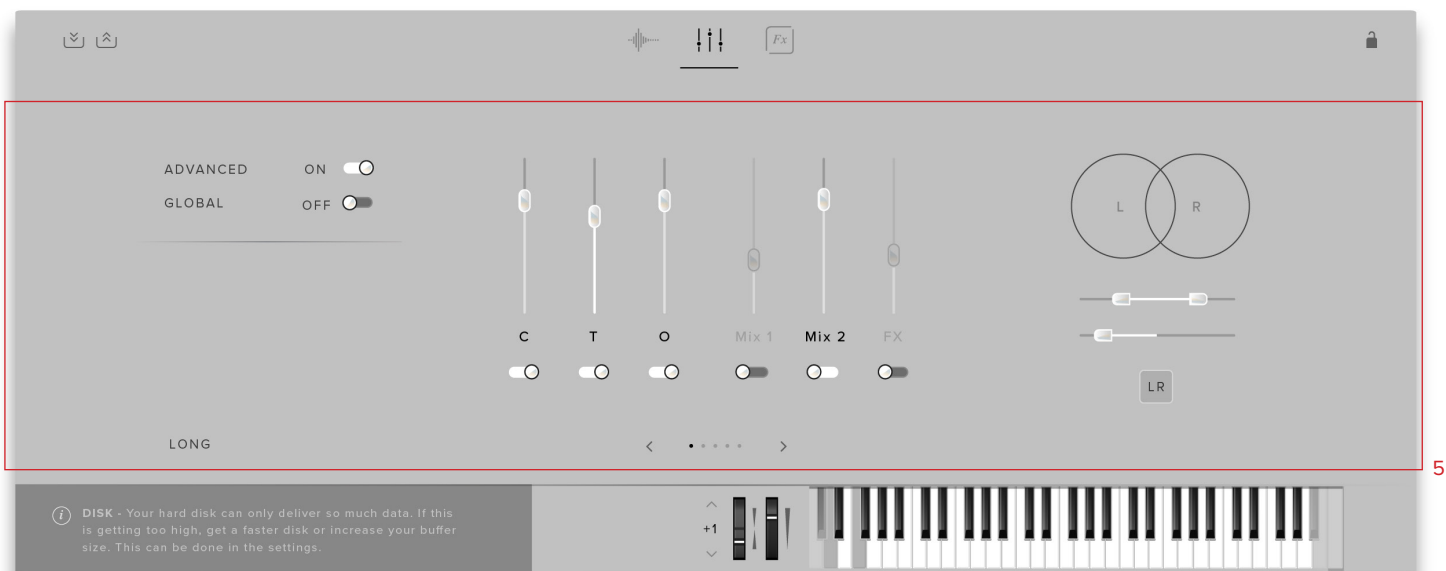
When you first open BBC Symphony Orchestra, this is what you will see. It opens with a blank preset, so you can load any preset you choose first.

### 1. TOP MENU

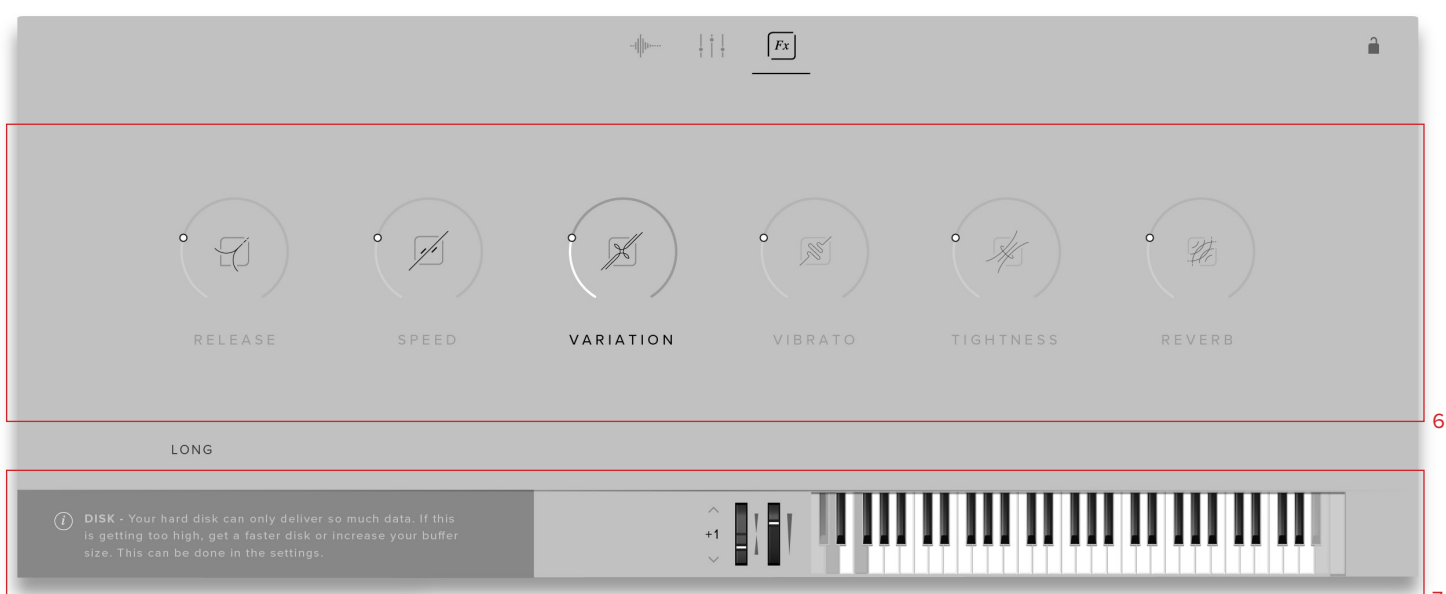
### 2. PRESET SELECTOR

### 3. MAIN CONTROLS

### 4. TECHNIQUE SELECTOR



5



6

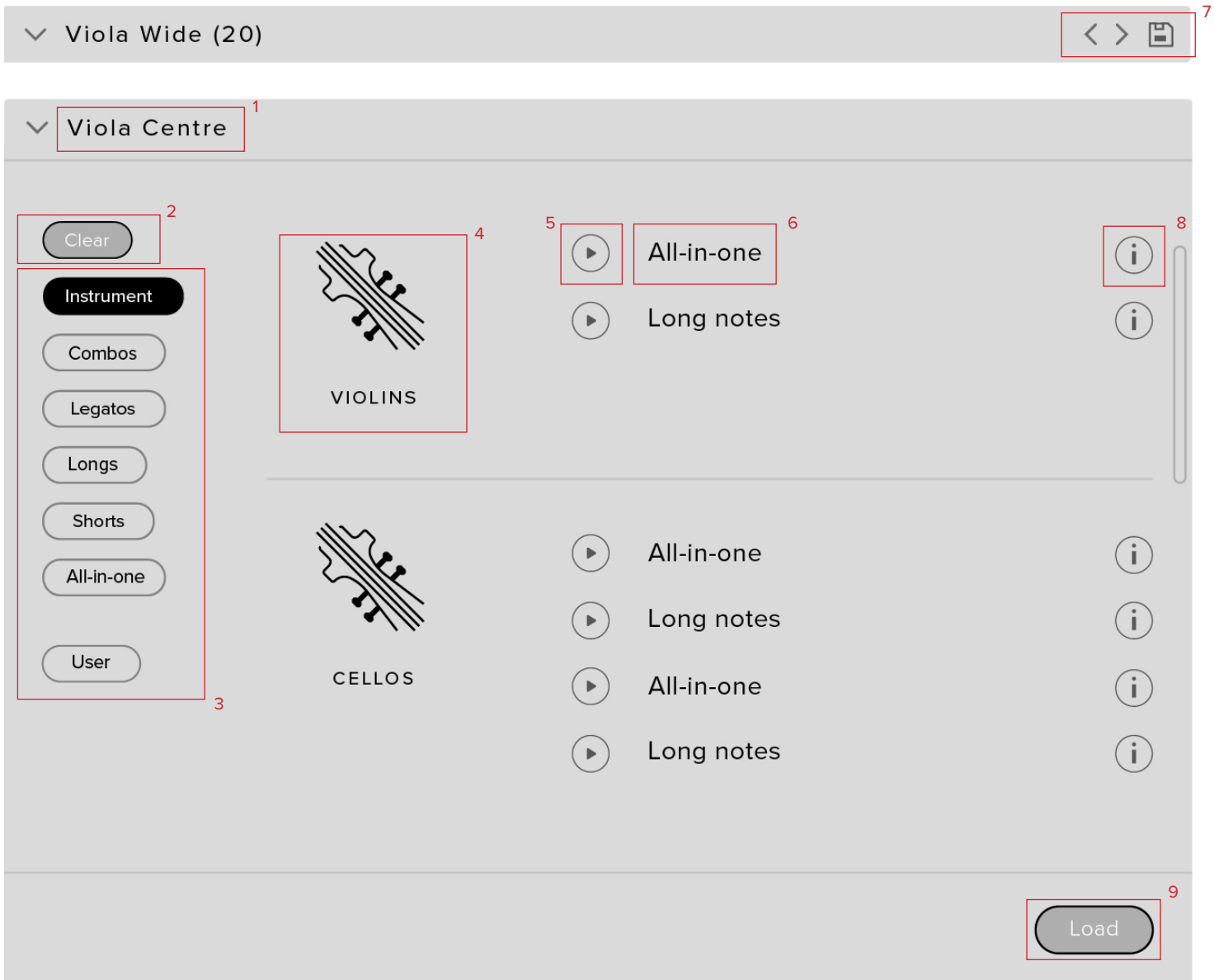
7

## 5. SIGNAL MIXER

## 6. COTROLLERS

## 7. KEYBOARD & INFO

# PRESET SELECTOR



## 1. PRESET NAME

Here you can see the currently selected preset. Note that some presets are single techniques, like “Breathy Mmm”, others are collections of techniques, like the “Tutti All In One”.

## 2. CLEAR FILTERS

Click here to show all instruments at once.

## 3. FILTERS

Click on a filter to only show those presets. The filters are subtractive, so selecting

“Strings” and “1st Violin” will show you only the 1st Violin presets. Click the “Clear” button to return to a view of all presets.

## 4. INSTRUMENT GROUP

As you scroll through the available presets, the instrument group is displayed here.

## 5. PREVIEW

Play back a short example of the preset without having to load it! Enormously helpful when choosing a sound.

## 6. PRESET LIST

Scroll through the list of presets here.  
Double-click to load a preset or click the  
'Load' button.

## 7. NEXT, PREVIOUS AND SAVE

With the presets view collapsed, you will be able to see the Next, Previous and Save icons. Next and Previous will simply send you to the next available preset - if you have a filter enabled, you will scroll through the filtered set of presets. Save allows you to save your own preset, click save, name the preset and it will appear under the "user" filter.

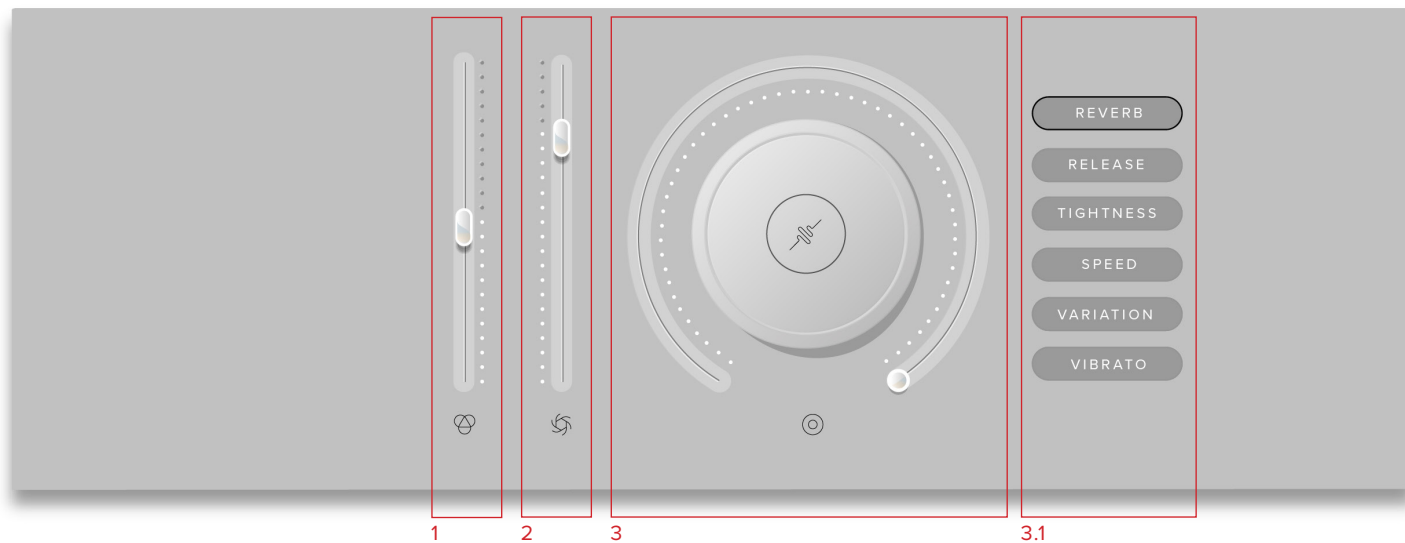
## 8. INFORMATION

Hover over on the "i" icon to see some information about the preset.

## 9. LOAD

Select a preset and then press "load" (or double-click the preset).

# MAIN CONTROLS



## 1. VOLUME

Often referred to as “Expression” in our Kontakt Libraries, this is a simple level control for you to adjust along with...

## 2. DYNAMICS

Adjust the dynamic layer that you are playing here, use in conjunction with the volume to make your performances sound so much more musical than before!

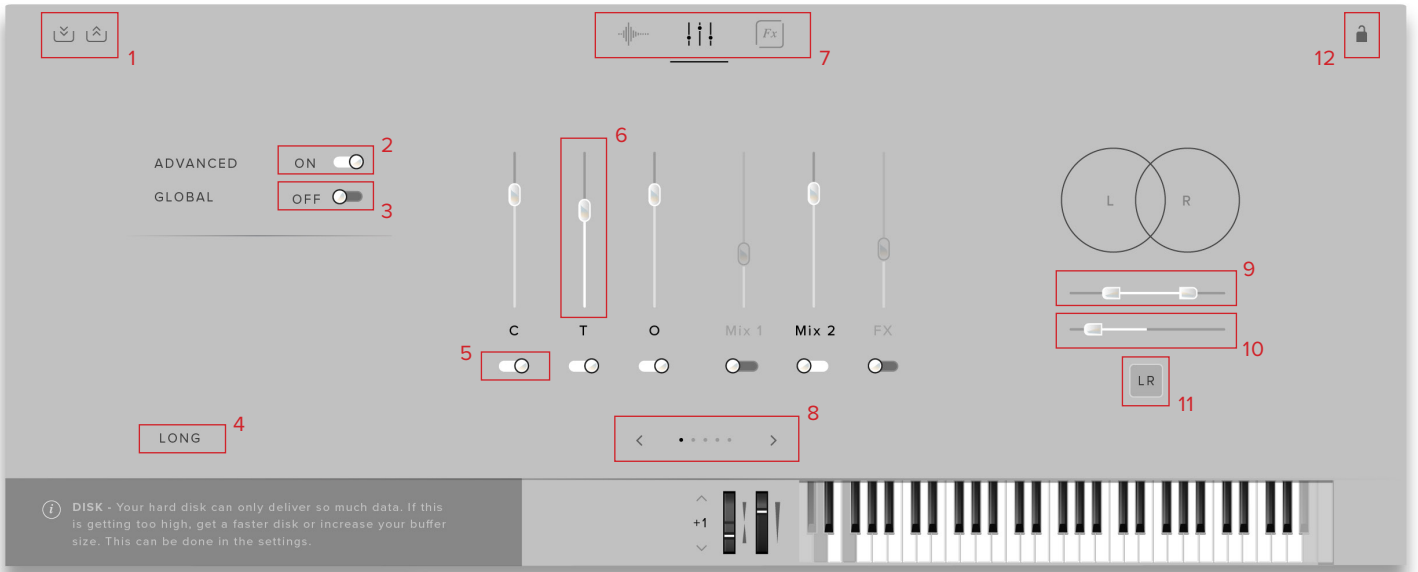
## 3. KNOB

The configurable knob allows you to control any of the other available parameters for the particular technique.

Hover over the knob and it will turn black.

**3.1 CLICK:** Click and you will be able to assign any of the remaining available controls to the knob.

Right click on any of these controls to assign them to a MIDI controller. Remember that if you assign a MIDI controller to a parameter via the knob, the MIDI controller will follow the parameter rather than being permanently assigned to the knob.



## 1. MIXER PRESETS

Load and save your own mixer presets here, this is a good way for you to share your mixes across different instruments and presets. Click on the down arrows to save and the up arrows to load.

To rename a preset after saving or delete a preset, browse to BBC Symphony Orchestra > Presets > Mix in the finder and edit the .mpreset files.

## 2. ADVANCED

By default, the mixer will load up in the

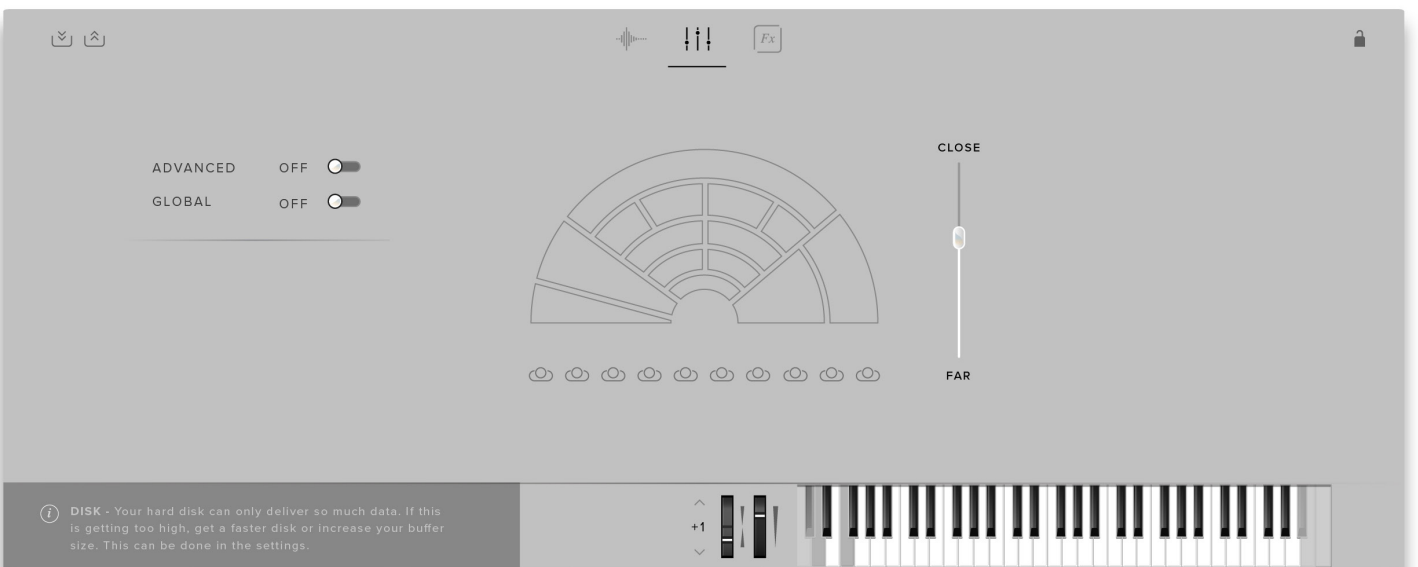
advanced view, turn it off to show this simple view below

In this view, you can simply adjust how close the instruments sound with a single fader. Under the hood, this will adjust the Close, Tree and Ambient signals.

## 3. GLOBAL

By default, this is “on” and means that any changes you make to the mixer are replicated across any technique in that particular preset.

## 4. TECHNIQUE NAME



## 5. SIGNAL ON/OFF

Here you can turn signals on or off (you can also turn them on by fading them up). If you turn a signal on, pay attention to the LED in the top left of BBC Symphony Orchestra, if it is flashing red, it means that the samples are still loading into RAM and you should wait before playing again to avoid glitches.

## 6. SIGNAL FADER

Adjust the level of each signal here, right-click to learn MIDI cc# automation.

## 7. VIEW SELECT

Choose between the Technique Switcher, Mixer and Effects, the Technique Selector and Effects are covered in different chapters of this manual.

## 8. SIGNAL NAVIGATION

Click the right arrow to access additional signals. Unused signals are greyed out.

## 9. STEREO WIDTH

Adjust the stereo width of the close and spot signals here. Right-click to assign to a MIDI cc#.

## 10. PAN

Adjust the position of the close and spot signals within the stereo field. Right-Click to assign to a MIDI cc#.

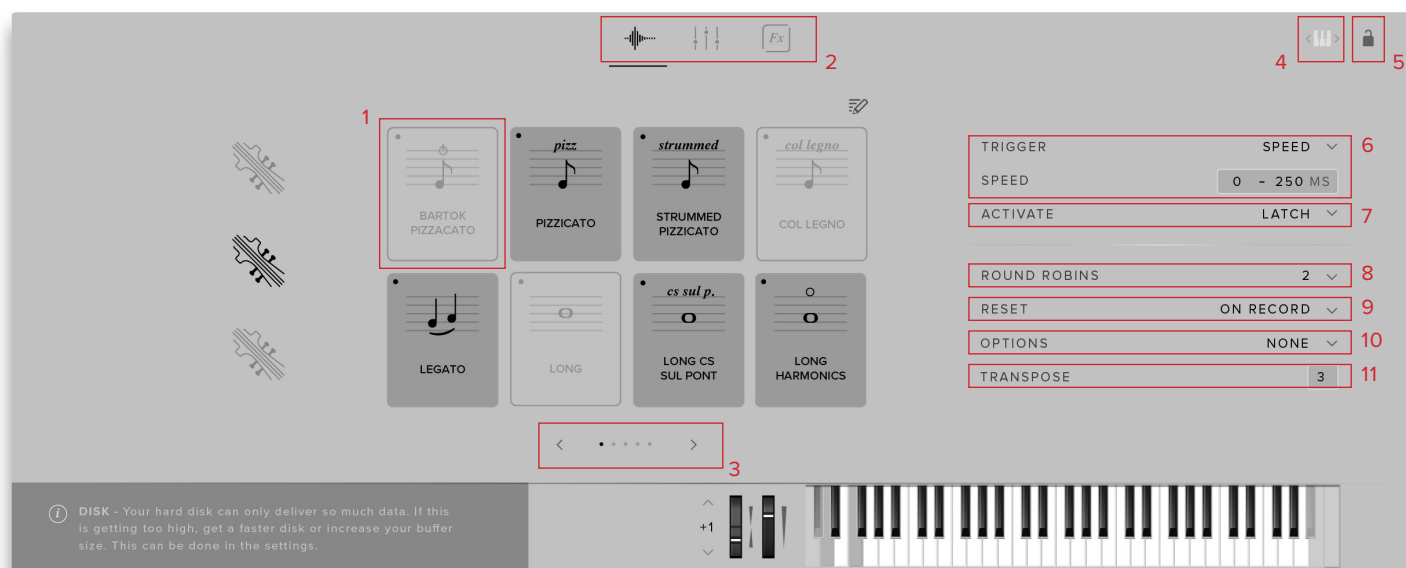
## 11. INVERT

Click to swap the left and right channels.

## 12. LOCK

Click to lock the Mixer. This will prevent further changes to the mixer, useful if you're happy with what you've done and don't want to accidentally change it. This will even prevent changes made by MIDI controllers, but beware, as soon as you unlock the mixer, the control will be active.

# TECHNIQUE SELECTOR



## 1. TECHNIQUE SWITCHER

Click to select a technique. Shift-Click to select multiple techniques. The black dot in the top left shows which technique(s) will play, the black outline shows which technique will be affected by any changes you make to the other options in this page.

## 2. VIEW SELECT

Choose between the Technique Selector, Mixer and Effects. The Mixer and Effects are covered in different chapters of this manual.

## 3. TECHNIQUE NAVIGATION

Click the right arrow to access additional techniques.

## 4. KEYSWITCH ADJUST

Click and drag to move the keyswitches to the left or right on your keyboard.

## 5. LOCK

Click here to lock off the technique section and prevent any unwanted changes.

## 6. TECHNIQUE TRIGGER

With the technique trigger section you can choose to trigger techniques using various parameters:

**Keyswitch** - Pick a key on the keyboard that will select this technique. The selected keys will show up in green for unselected techniques and in orange for selected techniques.

**CC Range** - Choose a cc# and a range of values (or a single value) for the control that you want to trigger this technique.

**VEL. Range** - Switch technique based on how hard you are playing! You might want to trigger longs when playing softly and pizzicato when playing hard.

**MIDI Channel** - Switch techniques based on the incoming MIDI channel.

**Speed** - Switch technique based on the speed of playing. Specify the time interval between notes to switch to a particular technique.

## 7. ACTIVATE

Choose between “NORMAL” and “LATCH” for your technique switching.

## 8. ROUND ROBINS

Round robins are a way to ensure that repeated notes don't sound robotic and unnatural. We record the same note multiple times and then cycle through them. Here you can choose to reduce the number of round robins that are being used.

## 9. RESET ON TRANSPORT

If you're worried about the effect of the round robins making each run through of your session sound different, you can choose to reset the round robins using the DAW transport.

## 10. RESET FROM KEY

You can also reset the round robins using a keyswitch. Choose that keyswitch here.

## 11. OPTIONS

**NEIGHBOUR ZONE RR**: Double the number of round robins by “stealing” notes from neighbouring notes and transposing them to match the pitch.

**LAYER X2**: Thicken the sound by layering round robins on top of one another. This option will play round robins 1/2 followed by 3/4, effectively halving the number of round robins.

**LAYER X2 (NO SKIP)**: Same as above but this time you will be playing 1/2 followed by 2/3 and so on, meaning that you will not halve the number of round robins available.

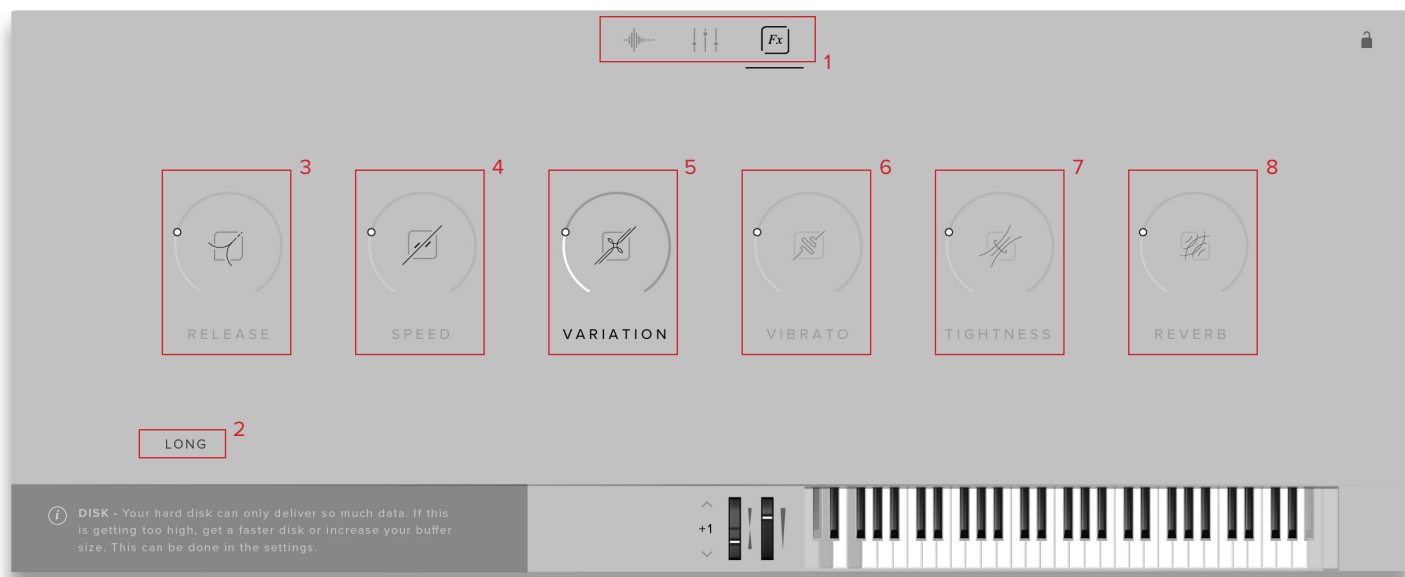
**LAYER +2**: This option will play the round robins from the tone above the key played but transposed down so that it plays at the right pitch.

**LAYER -2**: This option will play the round robins from the tone BELOW the key played but transposed UP so that it plays at the right pitch.

## 12. TRANSPOSE

Transpose the instrument up or down in 1 semitone increments.

# EFFECTS



## 1. VIEW SELECT

Choose between the Technique Selector, Mixer and Effects, the Technique Selector and Mixer are covered in different chapters of this manual.

## 2. TECHNIQUE NAME

## 3. RELEASE

Allows you to change the amount of release trigger you and your listeners hear. This only applies to Long techniques.

## 4. SPEED

Controls the speed of specific intervals.

## 5. VARIATION

On certain patches this will trigger a different variation of the same technique. For example, on a 'multi-tongue' patch you can go from double-tongued, triple-tongued, and finally quadruple-tongued by increasing the slider.

## 6. VIBRATO

Where appropriate, this crossfades from no

(senza) to lots (molto) vibrato.

## 7. TIGHTNESS

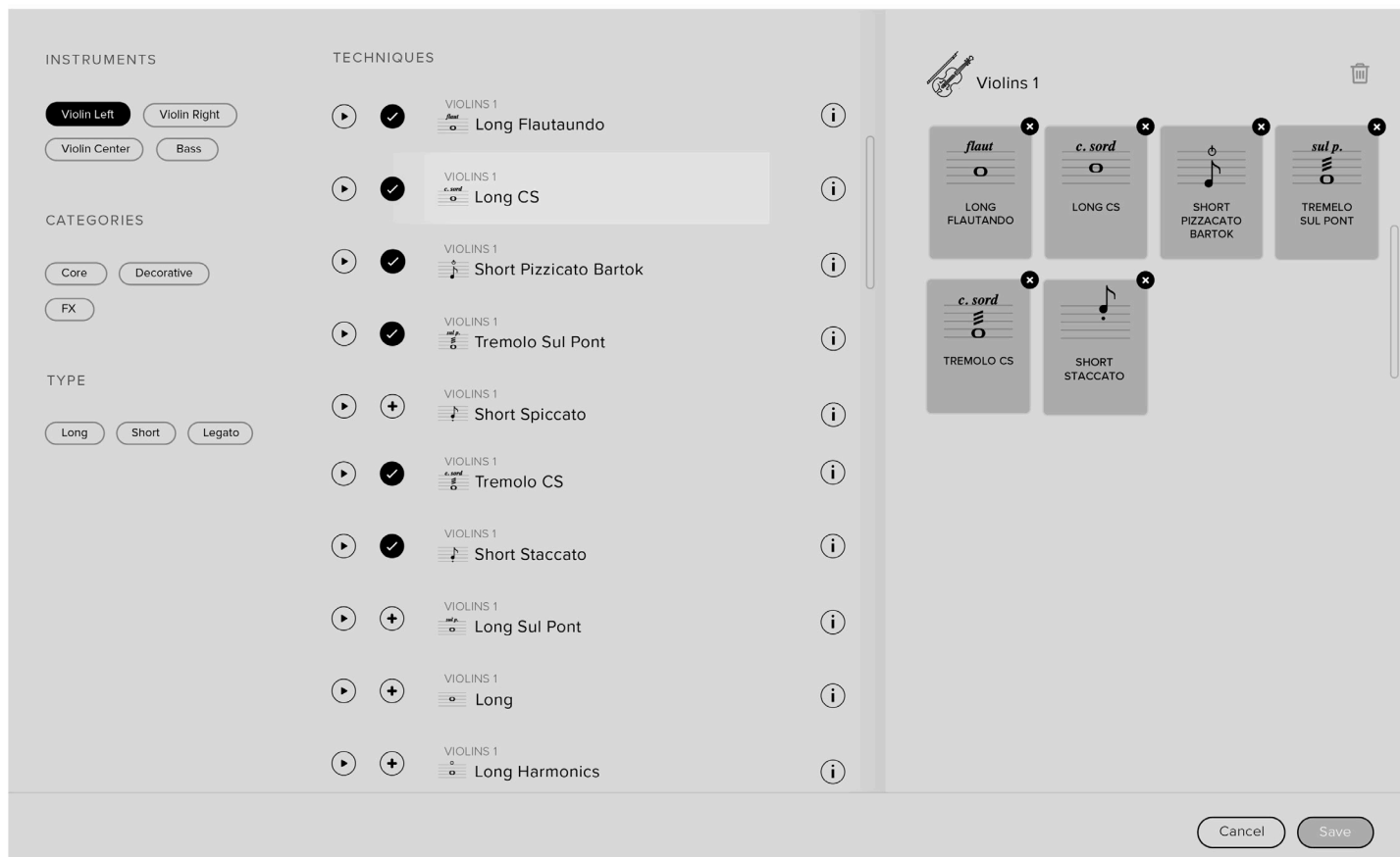
The start of a short note is often not the start of the 'sound' of the instrument. This cuts further into the note to make it tighter. But does detract from realism. Worth tightening up when playing in, then loosening and putting a negative delay into your DAW to compensate for ultimate reality!

## 8. REVERB

You can add additional reverb to the sound here.

# PRESET EDITOR

The Preset Editor will allow you to both add and remove techniques from your current preset, as well as re-arranging the order of the techniques to your own personal preference. This can be a great RAM saver!



- The left 'Instruments' panel allows you to filter between all available techniques for this specific preset.

- The central 'Techniques' panel shows all available techniques for each preset. Click the '+' to add techniques back into your current preset.

- The panel on the right is where your current articulations are displayed. Click and drag these to re-arrange the order. By selecting the 'x' in the top-right corners, you can remove a technique from your preset. Click the 'trash-can' in the upper corner to remove all techniques completely in a single click.

- Once you're done, click 'Save'. If you have made a mistake and don't want to save, choose 'Cancel' instead to go back to your previous setting.

# TOP MENU



## 1. LED

Shows when an instrument is loaded by lighting solid green. If this is flashing, your instrument is not fully loaded yet.

## 2. CPU METER

An indication of how much your CPU is being taxed, the green flash next to the CPU meter will turn red when you are overloading it.

## 3. DISK METER

How hard are you taxing your hard drive? If this is close to, or going over 100% it's time to consider a faster drive. See next page for settings that can help get the most out of a slower drive.

## 4. MEMORY

This shows how much RAM you are currently using in this instance of BBC Symphony Orchestra. While the preset is loading, this will show the instrument loading into memory.

## 5. VOICES

Shows how many voices are being used at any one time.

## 6. REFRESH

Refresh the instrument, alt-click to refresh the whole plug-in. This can be useful if you have hanging MIDI notes or have moved samples in your file system.

## 7. MIDI CH

Set the MIDI channel that will control the

instrument here. If in doubt select “all” so that the instrument will react to any incoming MIDI messages.

## 8. TUNE

Move this knob to tune in semitone increments, shift-click to move in increments of 0.01 of a semitone. Alt-click to reset to default.

## 9. PAN

Pan the whole plug-in left and right in the stereo field. Alt-click to reset to centre.

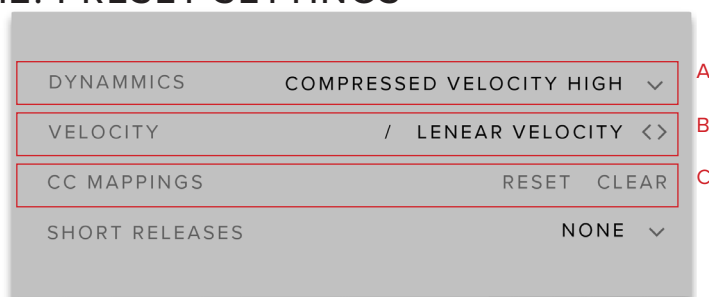
## 10. VOLUME

Control the overall volume of the instrument.

## 11. LEVEL

A visual indication of the level of the instrument.

## 12. PRESET SETTINGS



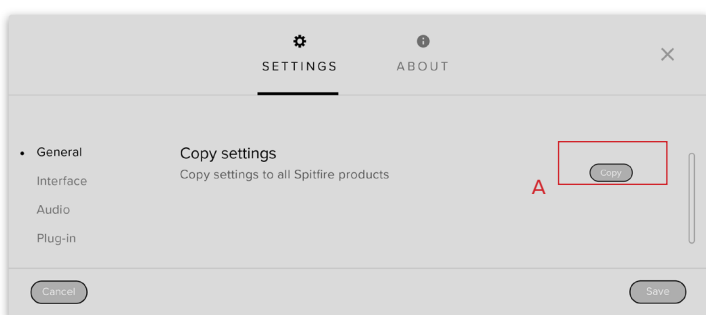
### A. VELOCITY MAPPED TO DYNAMICS —

Here you can choose from up to 4 different behaviours for the Dynamics fader. 1) Full Velocity Range. 2) Velocity Mapped to Dynamics. 3) Compressed Velocity High. 4) Compressed Velocity Low.

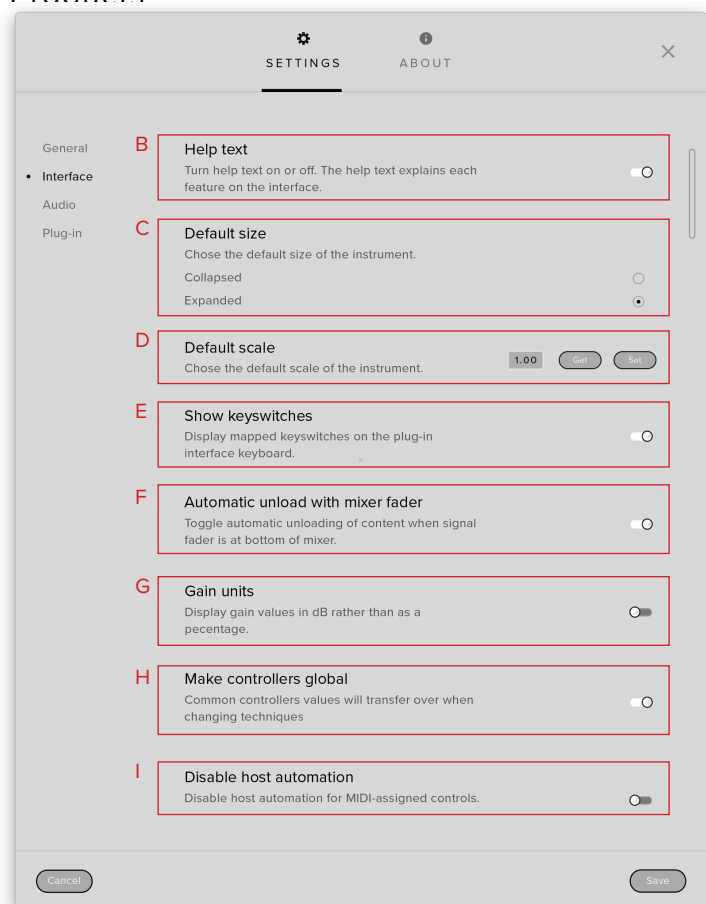
**B. VELOCITY RESPONSE** — Pick from 4 different velocity curves to suit your controller.

**C. RESET CC MAPPINGS** — Clicking on this will reset all of the CC mappings for this instrument to the defaults - useful if you've got yourself in a mess! Clear CC Mappings - Delete all CC mappings - this is good if you have a clear idea of what parameters you want to control and want to start from a clean slate!

For a list of all the default CC mappings, please see Appendix C.



**A. COPY SETTINGS** — Common Controller values will transfer over to other Spitfire Products



**B. HELP TEXT** — Turn this on to display parameter information in the bottom left corner of the plug in.

**C. DEFAULT SIZE** — Set whether the instrument opens up collapsed or expanded by default.

**D. DEFAULT SCALE** — How big the instrument is when you open it as a fraction of its original size. Here you can “get” the current scale of the instrument or change the value and press set to change the scale of the instrument. Press “save” to save the current scale as the default and press “reset” to change the current scale to the default value..

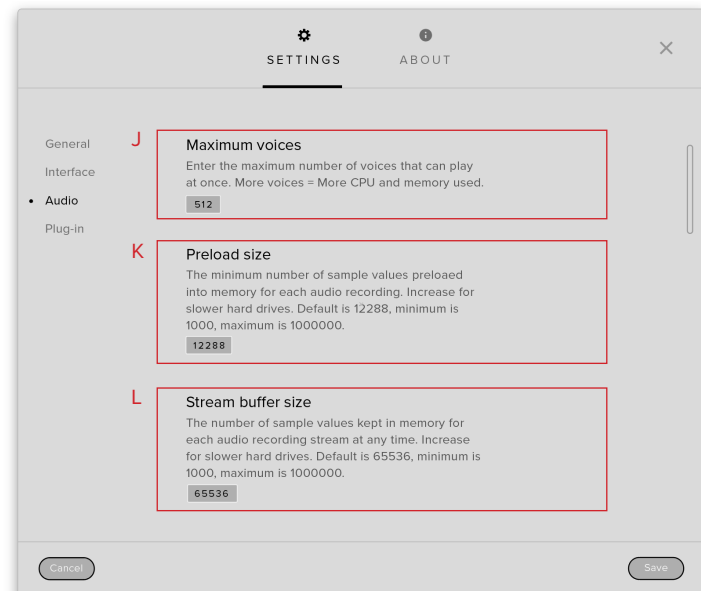
**E. SHOW KEYSWITCHES** — When this option is on, presets that have multiple techniques will show available keyswitches in red and the currently selected technique(s) in yellow.

**F. UNLOAD WITH MIXER FADER** — Toggle this to unload data from RAM when fader is pulled down to the bottom.

**G. GAIN UNITS** — Toggle this if you want your gain to be displayed in dB instead of as a percentage.

**H. MAKE CONTROLS GLOBAL** — Common Controller values will remain when switching techniques.

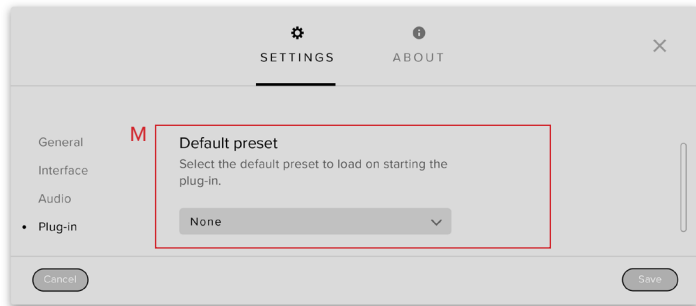
**I. DISABLE HOST AUTOMATION** — Turn this on to enable the Host Automation from the DAW.



**J. MAXIMUM VOICES** — Enter the maximum number of voices that can play at once. More voices = More CPU and memory used.

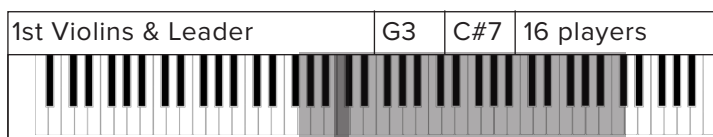
**K. PRELOAD SIZE** — The minimum number of sample values preloaded into memory for each audio recording. Increase for slower hard drives. Default is 12888.

**L. STREAM BUFFER SIZE** — The number of sample values kept in memory for each audio recording stream at any time. Increase for



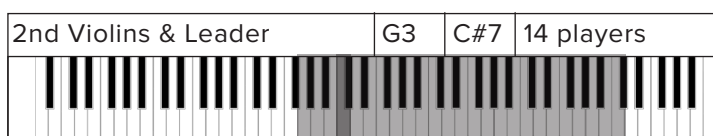
**M. DEFAULT PRESET** — Choose a preset that you wish the plug in to load by default on launch

# THE STRING SECTION



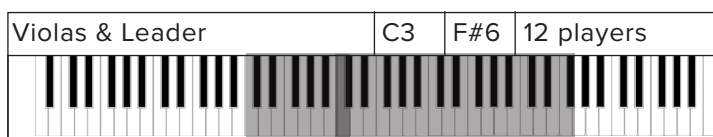
## 1<sup>ST</sup> VIOLIN SECTION

Usually the largest of the String sections, with the widest expected range. They sit to the left of the conductor and their principal player is referred to as the Orchestra 'leader'.



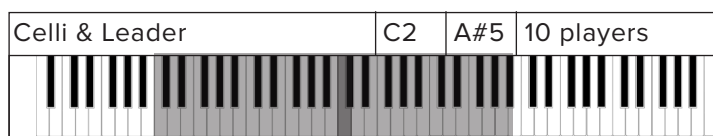
## 2<sup>ND</sup> VIOLIN SECTION

Exactly the same instruments as the 1st Violins, but in a slightly more 'supporting' role. These players are situated to the right of the 1st Violins, and the left of the Violas.



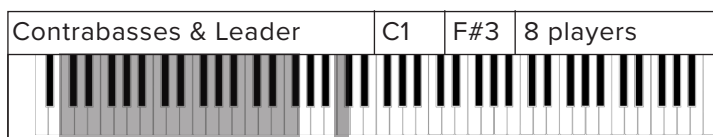
## VIOLA SECTION

Similar in shape, but much larger in size than a Violin. These sit straight ahead and slightly to the right of the conductor. They often play the simpler more 'pedalling' harmonic lines.



## CELLO SECTION

Arguably the most versatile of the String instruments, with a huge range from very low to heartbreaking highs. They sit to the right of the conductor and in front of the Basses.



## CONTRABASS SECTION

Huge and monstrous instruments that sit to the right of the conductor and behind the Cellos. These all had the low C extension, hence the range.

# THE BRASS SECTION



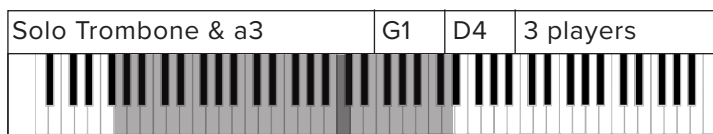
## FRENCH HORNS

Available as solo and a4, Horns are the most stately and noble of the brass family – similar in range and timbral diversity to the cello. Many would say that Horns are the principals of the brass choir.



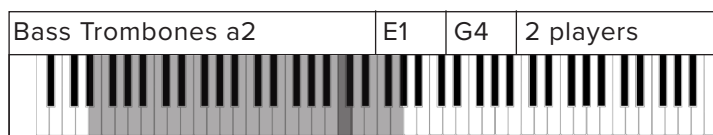
## TRUMPETS

Available as solo and a3, the Trumpets are the highest member of the Brass family. From plaintive and anthemic solo lines in it's mid range to blistering mariachi up in the top. Great in octave unisons with the Horns!



## TENOR TROMBONES

Available as solo and a3, the Tenor Trombone is a deeply versatile Brass instrument. Providing plenty of warmth and depth when played in the lower dynamics, and rasping tones in the higher.



## BASS TROMBONES

Because of it's different bore size, the timbre of the Bass Trombone differs from the Tenor. Great for lower passages, but also in unison blend with the Tenor.




## CONTRABASS TROMBONE

A lesser used, but no less interesting instrument. It requires huge amounts of breath so be careful when writing low and continuous drones!

Tuba	D1	E4	1 player
			

## TUBA

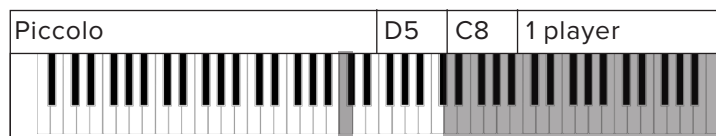
It doesn't get more noble than a Tuba. From super fat bottom end and chocolatey harmonic potential, to a rasping lion from the depths of hell.

Contrabass Tuba	D1	C4	1 player
			

## CONTRABASS TUBA

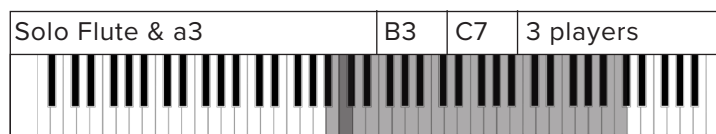
Less articulate than it's smaller cousin, the Contrabass Tuba is a true giant of the orchestra. Great for super low and monstrous long notes.

# THE WOODWIND SECTION



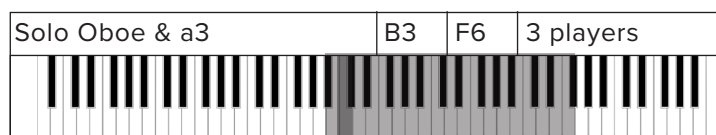
## PICCOLO

The Piccolo is a half sized Flute that plays an octave higher than written. The loudest and highest instrument in the orchestra, can cut through an entire orchestra with ease!



## FLUTES

Available as solo and a3, the C Flute is massively dynamic and versatile. Suitable for carrying sweet and lyrical melodies, or within section work. Try in unison with your 1st Violins!



## OBOES

Available as solo or a3, the Oboe is a double-reed instrument that is less dynamic than other Woodwind cousins. It's a beautiful lyrical instrument with 'period' connotations, and also works great as a bright section texture.



## COR ANGLAIS

Also known as English Horn, and often mistaken for an Oboe. The Cor Anglais handles top lines just as well as the Oboe, but with a richer quality. Sounds a 5th lower than written.



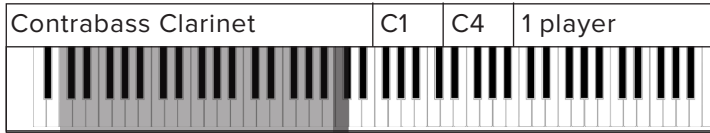
## CLARINETS

Available as solo and a3, the Clarinet is a single reed instrument with a very regal tone. When used solo it can have a very period drama sound to it. Plays a whole tone lower than written.



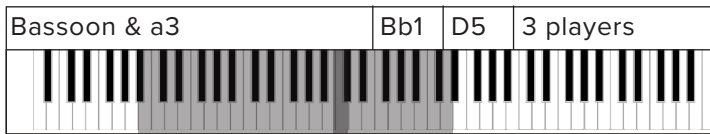
## BASS CLARINET

This instrument has an extraordinary sonic switch when played quiet; smooth and rich. Played loud and short it rasps almost like a synth. Plays an octave and whole tone lower than written.



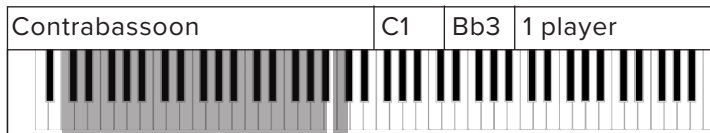
## CONTRABASS CLARINET

Far less common, and very difficult to play, this immensely rich instrument can sit under your double basses adding complexity in the undertones. Plays two octaves and a whole tone lower than written.



## BASSOONS

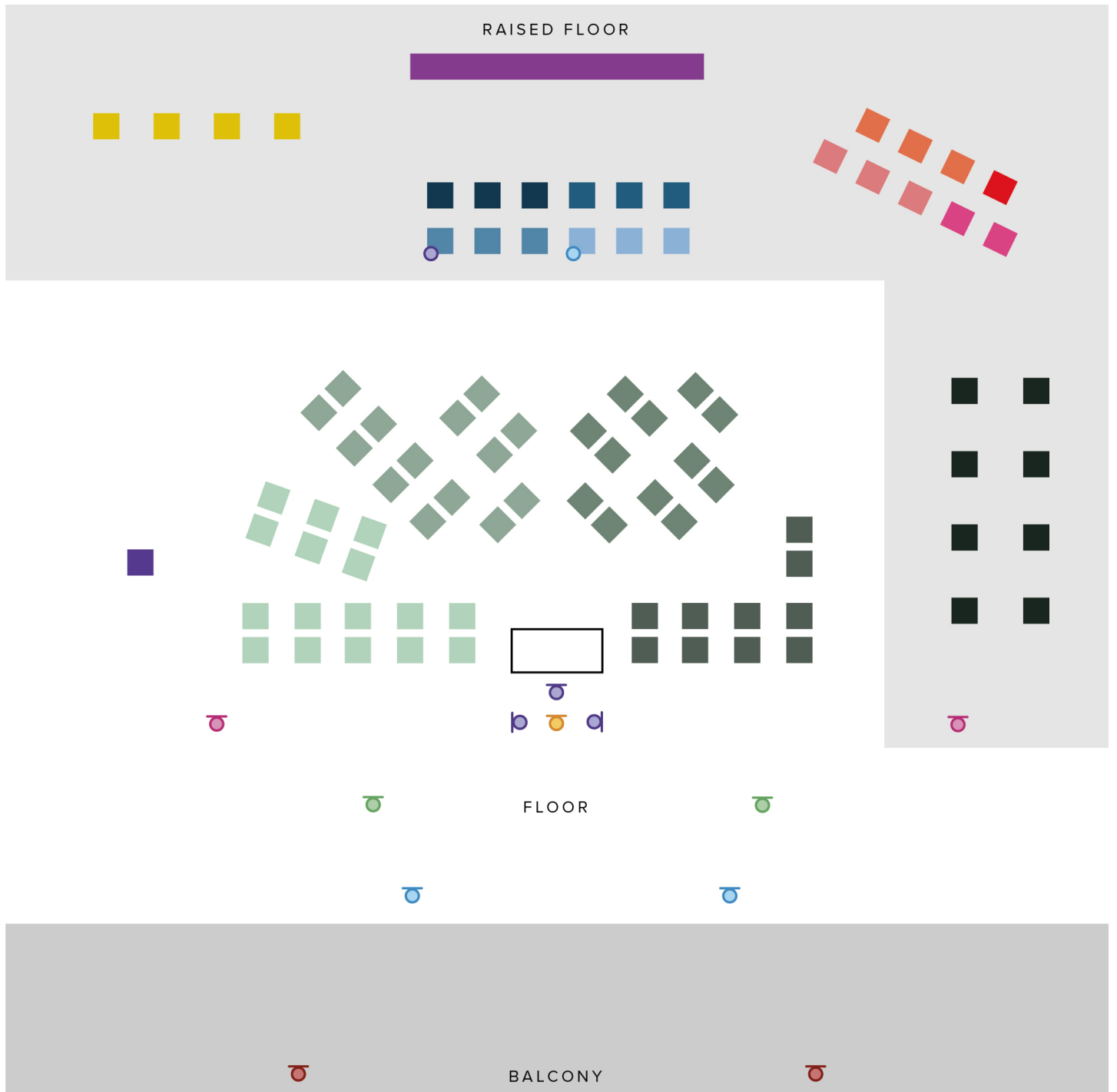
Available as solo and a3, the Bassoon is yet another versatile instrument that is often painted into a staccato comedy corner. As Stravinsky proved with “The Rite of Spring”, it can be hauntingly melodic.



## CONTRABASSOON

Producing the lowest tones in the orchestra, this beast can go from rich bass qualities to pure low end horror that shakes the room.

# RECORDING THE BBC SO



- |   |            |   |            |   |             |  |               |   |            |
|---|------------|---|------------|---|-------------|--|---------------|---|------------|
|  | Tree       |  | Violin I   |  | Flute       |  | French horn   |  | Harp       |
|  | Outriggers |  | Violin II  |  | Oboe        |  | Trumpet       |  | Percussion |
|  | Ambient    |  | Viola      |  | Clarinet    |  | Trombone      |   |            |
|  | Mono       |  | Cello      |  | Bassoon     |  | Bass Trombone |   |            |
|  | Sides      |  | Contrabass |  | Piccolo     |  | Tuba          |   |            |
|  | Balcony    |   |            |  | Cor Anglais |  |               |   |            |

# MICROPHONE SIGNALS

## MONO

An old fashioned microphone for an old fashioned sound! Positioned behind the conductors head for a close to realistic mono pickup.

## LEADER

A condenser microphone placed close to the leader of the section. Not used in a typical mix, though very useful when wanting to make the section sound smaller.

## DECCA TREE

Three omnidirectional microphones placed in the traditional Decca Tree arrangement, situated high above the conductors head. These give a strong representation of the hall, whilst maintaining instrument focus. Often the start point of any mix.

## OUTRIGGERS

Two omnidirectional microphones placed midway between the orchestra at the same line as the Decca Tree. These add great natural width, and should be used in combination with the Tree to add space to your mix.

## AMBIENT

Two omnidirectional microphones placed towards the rear of the room, higher than the Outriggers resulting in a nice room ambience. Great for use in a 5.1 surround mix, or to add more space to a stereo mix.

## BALCONY

Two omnidirectional microphones placed at the very rear of the hall, high up in the balcony. Also great in a 5.1 surround mix, or for a huge amount of space in a stereo mix. About as much ambience as you can get!

## STEREO SECTION

Two Coles 4038 microphones placed in a stereo arrangement, close to the musicians at head height. Use as a very nice pickup if you want a closer sound but with a different vibe. Great for use on a Solo Instrument with some Tree or Ambient, but use with caution on multiple instruments as they will be panned the same!

## MIDS

A stereo pair placed above the Brass, Woodwind and Percussion sections. These are used as a mid pickup between the Close and Tree microphones. These are great in most mixes, and are a great balance between close and roomy.

## SIDES

Two omnidirectional microphones placed on the very edge of the Orchestra, in the same line as the Decca Tree and Outriggers. Great for use in a Dolby Atmos mix, or in 5.1 to add some extreme width.

## ATMOS FRONT

Two omnidirectional microphones placed high above the Orchestra at the front. Use these to add height to a Dolby Atmos mix, at the front of the mix.

## ATMOS REAR

Two omnidirectional microphones placed high above the Orchestra at the rear. Use these to add height to a Dolby Atmos mix, at the rear of the mix.

## CLOSE WIDE

The section close microphones. These are panned across the stereo image with as much separation as possible, to allow the

most control so that the signal can be moved easily.

The occupied space in the stereo field will vary depending on how many close microphones are used:

- One microphone used (eg. Solo Flute) will be central.
- Two microphones used (eg. Horns) will be both hard left and hard right. 1L, 2R.
- Three microphones used (eg. Flutes a3) will occupy the entire space. 1L, 2C, 3R.

With a stereo panner (not a balance panner!) you can narrow and move the signal wherever you like with ease. This is great for use in pop!

## CLOSE

The standard close microphones per section, positioned naturally in situ for the best close sound. Use these with your room mics for part of your base sound.

## SPILL

We have 5 spill (or 'bleed') signals available, which can act as glue in Orchestral context. These will add extra width and natural 'space' from the unused microphones. The spill signals are available to dial in on a per section basis, or as a 'full mix'.

For example, a Solo Horn dialling in some of the 'Sp. Str' will mean that the close mics from the String section will be added to the mix. Whereas for 'Sp. Full', every single close mic from the entire Orchestra will be added.

## MIX 1

Jake Jackson's mix, which is a balance of commonly used microphone positions. A great starting point!

This is specifically a mix of the Decca Tree, Outriggers, Ambient, Balcony, Mids (not on the Strings!), and Close signals.

## MIX 2

Jake Jackson's second mix, which is a bit more 'hyped' in sound, with some added Compression, EQ, and Reverb.

This is specifically a mix of the Decca Tree, Outriggers, Ambient, Balcony, Sides, Atmos Front, Stereo, Mids and Close signals.

Both of Jake's mixes do not use the Spill signals, so these can be dialled in as bonus!

# TECHNIQUES

## LEGATO

Legato in the context of a sample instrument refers to the technique of capturing the sound of an instrument moving from one note to the next. Capturing these intervals can be extremely useful in adding realism, but does need to be played monophonic (one note at a time).

To trigger these transitions, you must make sure that you hold down the first note whilst playing the key of the second note. As long as you overlap the notes, the engine will know that you want to trigger a legato transition.

In the BBC Symphony Orchestra we recorded many different types of transition, which vary across the different families.

If you see the 'Legato (extended)' techniques available in anything other than Strings, this means that the patch will have playable 'short' notes built in which respond to the way you play. If you play a short snappy note on your keyboard, a short note will trigger. The Strings have this programmed automatically, even without the (extended) tag.

As well as this, the extended patches also often have another type of transition featured. For example, the Flute Legato (extended) technique will have playable runs recorded, which will trigger based on the speed of playing.

Within the String family, we've recorded a couple of specific transitions:

**PORTAMENTO** is the technique of 'gliding' from one note to another without defining the intermediate notes, resulting in a smooth slide between two pitches. This is commonly used on larger intervals across different strings. These trigger when moving to another note at lower velocity.

**SLURRED** or 'Fingered' is the most basic type of transition, where the player will simply add or remove their finger whilst the bow continues without change. These will trigger on the higher velocity transition values.

## LONG (+ CS)

The most vanilla of the long notes that we record, a standard sustained note. This is the basic playing style, recorded both with and without vibrato. Long CS (short for Con Sordino) is the muted variant of this patch. A small rubber mute is attached onto the bridge, giving a dampened effect to the strings.

## FLAUTANDO

This refers to a soft 'flute-like' way of performing on a stringed instrument. Often the bow will be near or over the fingerboard, which gives off a very different character to the sound from the usual bow position. Sometimes we describe this to played as 'harmonic-like', and this helps steer them towards a more 'glassy' and delicate, often non-vibrato sound.

## SPICCATO (+ CS)

This articulation can vary! For us, our Spiccato aim to capture a very nice 'tight' sound, with the bow bouncing off the string. This creates a sound that can be used either as a nice short staccatissimo, but also as a sequence of fast short notes or an ostinato

## STACCATO

Staccato in notation refers to a 'shortened and detached' style of playing. In the case of samples, this usually refers to a single but defined short note.

## PIZZICATO (+ BARTOK)

Plucking the strings with the finger. The Bartok variant is where the player plucks so hard that the string actually ‘snaps’ back onto the fingerboard, producing a characteristic percussive sound. Definitely use this one sparingly, unless you want your players to develop blisters!

## COL LEGNO

Quite literally means ‘with wood’. This style of playing is to turn the bow over and strings the string with the wood of the bow. Usually players will bring a practice of less expensive bow for this, as their main bows can cost thousands!

## SUL PONT

Short for ‘sul ponticello’, meaning to play on the bridge. Here the players bow very close to the bridge, which produces a brittle and edgy sound. Always reminds us of nails on a chalkboard!

## TREMOLO (+ CS & SUL PONT)

A tremolo is where a player rapidly moves the bow whilst keeping the left hand on the same notes. The effect is a shimmering one when played soft, and a very aggressive and tense sound when played loud. CS refers to the muted variant, and Sul Pont refers to the Sul Pont variant.

## TRILLS

A trill is where a player alternates between two notes. These work great as accented performance embellishments, or you can play them very softly to create unique and interesting textures.

## SUL TASTO

To play with the bow over the fingerboard, producing a thinner and more delicate tone. This is different from Flautando, in that it is not specifically required to be ‘flute-like’, and therefore is more of a soft and delicate, yet still ‘normale’ sounding tone. Think of this as some middle ground between Flautando and

your standard sustained note!

## HARMONICS

If a player holds down lightly on the string a perfect fourth interval up from the note they are fingering, you hear what is called an ‘artificial harmonic’ sound - two octaves up from the note being fingered. This is called ‘artificial’ to distinguish it from the natural harmonic series of the open string. These ‘natural’ harmonics can be heard by moving the finger up and down the string while lightly bowing. Available a both short and long techniques!

## MARCATO ATTACK

Quite simply, played with a very heavy and accented abrupt start to a note. Great for layering, or for extra bite in a phrase.

## STACCATISSIMO

The shortest of the short notes. Similar to Staccato, just more snappy and short!

## MARCATO

Different to the Marcato Attack variant, and also not specific to Strings. Marcato in our samples refers to the longest of our short notes, and has a slightly harder attack whilst maintaining a round shape to the note start. Think of this as the longest note in a fanfare passage.

## CUIVRE

Literally French for ‘brassy’ - this refers to a style of playing where the player will go for a much edgier, more nasal and aggressive sound than usual. In some cases we ask the players to simply play as loud and brassy as they can! Think of this as the ‘top layer’ in brass instruments. If you’re going for something even brassier, try adding some saturation to the highs for a very hyped sound!

## SFORZANDO

Sforzando, or 'Sfz' indicates a forceful accent. In the case of our patches, you get a heavily accented note, which will then quickly drop to a softer layer, similar to Sfp in notation.

## **FLUTTER**

The player rolls a silent 'R' with the mouth whilst playing, giving a unique airflow that creates a very characteristic sound.

## **MULTITONGUE**

One of our favourite tools! We record double, triple, and quadruple tongued notes. You select which one you want to use by using the Variation slider. If you hit the keyboard hard, you'll get a longer more 'accented' final notes. If you hit softer, you get a very 'tight' final note. This combination makes the patch very versatile!

## **RIPS / FALLS**

Either a sweep 'up' to the target note, or a fall down to the target note. Sometimes there are different speeds for this, controlled with the variation slider.

# APPENDIX A — FAQS AND TROUBLESHOOTING

## Q: WHAT ARE THE SYSTEM REQUIREMENTS?

### MAC SYSTEM REQUIREMENTS

Mac OS X 10.10 or later

Minimum: 2.8GHz i5 (quad-core), 8GB RAM

Recommended: 2.8GHz i7 (six-core), 16GB RAM

### PC SYSTEM REQUIREMENTS

Windows 7, Windows 8, or Windows 10 (latest Service Pack, 64-bit)

Minimum: Intel Core 2.8GHz i5 (quad-core) or AMD Ryzen 5

Recommended: Intel 2.8GHz i7 (six-core) or AMD R7 2700

## Q: I WANT TO RESET MY BBC SO SETTINGS TO THE DEFAULT

You can delete the BBCSymphonyOrchestra.settings file to reset the settings to default. This is located at Users/username/Music/Spitfire Audio/Settings on a Mac and C:\Users\username\AppData\Roaming\Spitfire Audio\Settings on a PC.

## Q: MY LIST OF PRESETS IS EMPTY, HOW DO I SOLVE THIS?

If you have moved your Eric Whitacre Choir Library folder, you can solve this problem by using the “Locate Library” feature in the Spitfire Audio App.

If this does not solve the problem, the library likely needs reauthorising, to do this, use the “repair” feature in the Spitfire Audio App.

## Q: I SEE A RED EXCLAMATION

## MARK IN THE TOP LEFT OF BBC SYMPHONY ORCHESTRA, WHAT DOES THIS MEAN?

This means that there is an error, you can click the exclamation mark to open a log with further details. It is likely that using the “Repair” and “Locate Library” features in the Spitfire Audio App will solve the problem but if not, contact our support team at [spitfireaudio.com/support](http://spitfireaudio.com/support) and attach the log.

## Q: CAN I INSTALL ON MORE THAN ONE COMPUTER?

With our products you have two licenses. This means that you are allowed to download and install on two computers you own, say your main rig and your mobile rig. If you have purchased the library on a hard drive, you should copy the contents of the drive on to the destination machine before completing the download with the Spitfire App. If you downloaded BBC Symphony Orchestra, you can copy the library folder over to the second machine and then use the “Repair” and “Locate Library” features in the Spitfire Audio App.

## Q: I CAN'T SEE THIS IN THE KONTAKT LIBRARIES PANE AND WHEN I TRY AND LOAD IT INTO KONTAKT IT SAYS NO LIBRARY FOUND

This library does not run in Kontakt, it is a standalone plug-in that you can run in your chosen DAW.

## Q: HOW DO I AUTHORIZE BBC SYMPHONY ORCHESTRA ON A MACHINE NOT CONNECTED TO THE INTERNET?

It is currently not possible to authorise BBC Symphony Orchestra on a machine not

connected to the internet. Authorisation is done with the Spitfire Audio App and an internet connection is required.

## Q: HOW CAN I REDOWNLOAD A PRODUCT?

This can easily be done via your Spitfire Audio App. To reset both your entire library download or the latest update;

- Open up the Spitfire Audio App and log in with your account email and password.
- Select the product artwork you wish to re-download
- On this page is a “cog wheel”. Select this, choose “reset” from the menu. Then “Reset Entire Download” (for a full download) or (Latest Update) for the latest update.

This will reset your latest update ready for install again. You can repeat this process for any of the libraries you own.

Note that there is a limit to how many times you can reset your downloads in a certain time frame. If you do exceed your reset limit please get in touch.

## Q: DIFFICULTIES IN DOWNLOADING / INSTALLING

Customers may find that they have some difficulties in the downloading process. If you find that you are having some trouble, please check the list below for possible causes:

- The formatting of your drive, if it is FAT32 this will cause errors, because there is a maximum file size with this format of 4GB and our download files will exceed this limit. To solve this problem, reformat your drive or use a different drive. We recommend NTFS on PC and Mac OS Extended on Mac. Other possible issues:
- Spitfire App freezes in the “Extracting” stage for hours. This may be because our libraries are often very large files, and this is the stage where the compressed files are extracted and placed in their final locations

on the hard drive. There could be hundreds of GB of content to unpack, so it really can take hours. If you’re unsure whether it has crashed or is simply extracting files, visit the installation folder you chose when you started the install. If everything is working normally you’ll see various files appearing in the folder (or one of its sub-folders).

- If you see a “Download interrupted” message may be caused by a change in IP, usually the case with people using a VPN, or people who for some reason started a download in one country and tried to resume it in another. In this case, please submit a support ticket and we can unblock you.
- If your download gets stuck and is continually cycling and not resuming, please get in touch with us, giving us as much detail as possible about your set up. It would be helpful if you can tell us your operating system, where you are downloading from (your country, and also whether you’re at home or work), your ISP, and whether there are any proxy servers or firewalls between your computer and the internet.

## Q: I HAVE FAST INTERNET, WHY IS MY DOWNLOAD SLOW?

We have no direct influence on your actual download speeds, our libraries are hosted on Amazon S3 servers which are normally very quick but it may well be that at certain times of the day when traffic is particularly busy, your ISP may throttle your connection speeds.

We would advise you to leave your download running overnight as speeds should ramp up at less busy times. Our Spitfire App downloader aims to use as much of the available bandwidth as possible to give you the quickest possible speeds, and may take several minutes to reach its peak.

## Q: CAN I TRY BEFORE I BUY?

No - it is not currently possible to demo our products.

If you go to our Youtube channel you’ll see

many many walkthroughs containing detailed info about all our products -- you can hear them being played in real time with no smoke and mirrors!

## **Q: MY LIBRARIES ARE NOT SHOWING UP IN MY SPITFIRE APP**

A handful of customers may find that when they log into their Spitfire App, some of their previously purchased products do not show up in the 'Installed' section or in the 'Download Ready' section either. It may be that you have purchased these under another email address. Checking other possible email addresses for your previous purchases may help to find these missing products. If this is not the case, and these missing products were purchased a few years ago, please create a support ticket telling us your account email address, and any serial numbers you may have to go with these missing products. Our support team can also merge one or more accounts together if you'd like to consolidate all your purchases in one place.

The more information we have, the quicker we can get you back up and running!

## **Q: HOW DO I UPDATE MY PRODUCTS?**

The main premise of downloading our products is that our Spitfire App downloads into the folder you choose, so it is important to choose the folder above where you want the download to go. The best file path for our products is something very simple, a long file path will cause errors as there is a character limit on how far the Spitfire App can read. We advise a file path of something along the lines of: Samples Drive > Spitfire Audio

When it comes to downloading / updating - if you have a folder called 'Spitfire Audio' always point the Spitfire App to the folder Spitfire Audio - never go into this folder and choose the actual library in question.

## **Q: HOW DO I REDOWNLOAD THE**

## **LATEST UPDATE?**

With the continuous improvements to our Spitfire Audio App, we have incorporated the ability to reset your own downloads.

This can easily be done via your Spitfire Audio App.

Open up the Spitfire Audio App and log in with your account email and password.

- Select the product artwork you wish to re-download
- On this page is a "cog wheel". Select this, choose "reset" from the menu. Then "Reset Entire Download" (for a full download) or (Latest Update) for the latest update.
- This will reset your latest update ready for install again.

You can repeat this process for any other updates you wish.

If you do not see the option to reset your download in your Spitfire Audio App, we would advise to download the latest version of the Spitfire App from [spitfireaudio.com/info/library-manager/](http://spitfireaudio.com/info/library-manager/).

## **Q: I'VE BEEN WAITING AGES FOR MY DOWNLOAD LINKS...???**

We run all our orders through a fraud checking process. The automatic fraud check takes 20 minutes (but can take up to an hour during a very busy period, eg. Black Friday), but if your order gets caught at this stage, we run a manual order check, and this can delay the processing of your order for up to 24 hours (though this would be a rare and exceptional case).

You should however receive an order confirmation email IMMEDIATELY upon placing your order. This confirms that your order has successfully been logged in our system and that your payment was successfully taken. Please check your junk folders before contacting our support. The message will come from [do\\_not\\_reply@spitfireaudio.com](mailto:do_not_reply@spitfireaudio.com) if you'd like to add us to

your whitelist.

### **Q: CAN I DOWNLOAD ON A PC, THEN TRANSFER TO A MAC OR VICE VERSA?**

Yes, you can copy the library folder and plugin files over to the second machine and then use the “Repair” and “Locate Library” features in the Spitfire Audio App. Please note that although the majority of the download can be done on a separate machine, you will always need an internet connection to finish the authorisation process.

### **Q: HOW DO I DOWNLOAD PRODUCTS ON MAC OSX 10.9?**

The version of the Spitfire App needed to install Eric Whitacre Choir only supports Mac OSX 10.10 and upwards.

### **Q: I HAVE FOUND A BUG**

In some cases we can't squash them all and bugs shamefully make their way through. If you think you have found a bug, please contact us with all the relevant information;

- A description of the bug you have found
- A screencast (video) of the bug happening, or an audio example
- The exact preset name (or presets) in question and also the library giving us as much detail as possible will help us get to the bottom of the issue.

### **Q: WHAT IS YOUR REFUNDS / RETURNS POLICY?**

If you have NOT completed the download / installation process, then we CAN refund / return your product, please contact support with your account email address and order number so we can handle this quickly. If you HAVE completed the installation process (even if you've not yet registered your serial number), please see our EULA in regards to why we do not accept refunds and returns.

We can refund hard drive orders up until the point when the drive is dispatched from our office. This is usually 1-2 days after you order.

### **Q: I'VE FORGOTTEN MY PASSWORD?**

If you have forgotten your password, please see this link [spitfireaudio.com/my-account/login/](http://spitfireaudio.com/my-account/login/), and click 'Forgotten Password'. If at some point in the past you asked us to merge two or more accounts but have since forgotten, you MAY find that the forgotten password isn't working for the email address you asked us to merge FROM. In this case, please contact support with your name, and any email addresses you think we might know about, and we'll work out what has happened.

# APPENDIX B — TECHNIQUES/MICS/MIXES

## INSTRUMENTS:

### STRINGS:

#### VIOLIN 1 LEADER

- Legato (Portamento & Slurred)
- Long
- Long CS
- Long Flautando
- Spiccato
- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd
- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Marcato

#### VIOLINS 1 (16)

- Legato (Portamento & Slurred)
- Long
- Long CS
- Long Flautando
- Spiccato
- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd
- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Long Marcato Attack
- Tremolo Sul Pont
- Tremolo CS
- Long Sul Pont
- Spiccato CS

#### VIOLIN 2 LEADER

- Legato (Portamento & Slurred)
- Long

- Long CS
- Long Flautando
- Spiccato
- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd
- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Marcato

#### VIOLINS 2 (14)

- Legato (Portamento & Slurred)
- Long
- Long CS
- Long Flautando
- Spiccato
- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd
- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Long Marcato Attack
- Tremolo Sul Pont
- Tremolo CS
- Long Sul Pont
- Spiccato CS

#### VIOLA LEADER

- Legato (Portamento & Slurred)
- Long
- Long CS
- Long Flautando
- Spiccato
- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd

- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Marcato

### VIOLAS (12)

- Legato (Portamento & Slurred)
- Long
- Long CS
- Long Flautando
- Spiccato
- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd
- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Long Marcato Attack
- Tremolo Sul Pont
- Tremolo CS
- Long Sul Pont
- Spiccato CS

### CELLO LEADER

- Legato (Portamento & Slurred)
- Long
- Long CS
- Long Flautando
- Spiccato
- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd
- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Marcato

### CELLI (10)

- Legato (Portamento & Slurred)
- Long
- Long CS
- Long Flautando
- Spiccato

- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd
- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Long Marcato Attack
- Tremolo Sul Pont
- Tremolo CS
- Long Sul Pont
- Spiccato CS

### BASS LEADER

- Legato (Portamento & Slurred)
- Long
- Long CS
- Long Flautando
- Spiccato
- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd
- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Marcato

### BASSES (8)

- Legato (Portamento & Slurred)
- Long
- Long CS
- Long Flautando
- Spiccato
- Staccato
- Pizzicato
- Col Legno
- Tremolo
- Trill Major 2nd
- Trill Minor 2nd
- Long Sul Tasto
- Long Harmonics
- Short Harmonics
- Bartok Pizzicato
- Long Marcato Attack
- Tremolo Sul Pont
- Tremolo CS

- Long Sul Pont
- Spiccato CS

## WOODWINDS

### FLUTE

- Legato (Extended — Slurred & Fast Runs)
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Tenuto
- Marcato
- Long Flutter
- Multi-tongue

### FLUTES A3 (3)

- Legato (Extended — Slurred & Fast Runs)
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Tenuto
- Marcato
- Long Flutter
- Multi-tongue

### PICCOLO

- Legato (Extended — Slurred & Fast Runs)
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Tenuto
- Marcato
- Long Flutter
- Multi-tongue
- Rips
- Falls

### OBOE

- Legato
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Tenuto
- Marcato
- Multi-tongue

### OBOES A3 (3)

- Legato
- Long

- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Tenuto
- Marcato
- Multi-tongue

### CLARINET

- Legato
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Tenuto
- Marcato
- Long Flutter
- Multi-tongue

### CLARINETS A3 (3)

- Legato
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Tenuto
- Marcato
- Long Flutter
- Multi-tongue

### BASS CLARINET

- Legato
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Marcato
- Long Flutter

### CONTRABASS CLARINET

- Legato
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Marcato
- Long Flutter

### BASSOON

- Legato
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo

- Tenuto
- Marcato
- Long Flutter

### **BASSOONS A3 (3)**

- Legato
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Tenuto
- Marcato
- Long Flutter

### **CONTRABASSOON**

- Legato
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Marcato
- Long Flutter
- COR ANGLAIS
- Legato
- Long
- Trill Major 2nd
- Trill Minor 2nd
- Staccatissimo
- Tenuto
- Marcato

## **BRASS**

### **HORN**

- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre
- Long Sfz
- Long Flutter
- Multi-tongue
- Trill Major 2nd
- Trill Minor 2nd
- HORNS A4 (4)
- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre
- Long Sfz
- Long Flutter
- Multi-tongue

- Trill Major 2nd
- Trill Minor 2nd

### **TRUMPET**

- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre
- Long Sfz
- Long Flutter
- Multi-tongue
- Trill Major 2nd
- Trill Minor 2nd

### **TRUMPETS A3 (3)**

- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre
- Long Sfz
- Long Flutter
- Multi-tongue
- Trill Major 2nd
- Trill Minor 2nd

### **TENOR TROMBONE**

- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre
- Long Sfz
- Long Flutter
- Multi-tongue

### **TENOR TROMBONES A3 (3)**

- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre
- Long Sfz
- Long Flutter
- Multi-tongue

### **BASS TROMBONES A2 (2)**

- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre

- Long Sfz
- Long Flutter
- Multi-tongue

### CONTRABASS TROMBONE

- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre
- Long Sfz
- TUBA
- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre
- Long Sfz
- Long Flutter
- Multi-tongue

### CONTRABASS TUBA

- Legato
- Long
- Staccatissimo
- Marcato
- Long Cuivre
- Long Sfz

## PERCUSSION

### TUNED CELESTE

- Sustained
- Damped
- Damped Medium

### HARP

- Sustained
- Damped
- Damped Medium
- Bisbigliando Trem
- Gliss FX

### MARIMBA

- Hits
- Rolls

### CROTALES

- Hits
- Hits Bowed

### GLOCKENSPIEL

- Hits

- Rolls

### TIMPANI

- Hits
- Rolls
- Hits Soft
- Rolls Soft
- Hits Hotrods
- Long Rolls Hotrods
- Hits Damped
- Hits Super Damped
- Hotrods Hits Damped
- Hits Damped Soft

### TUBULAR BELLS

- Hits
- Rolls
- Hits Damped

### VIBRAPHONE

- Hits

### XYLOPHONE

- Hits
- Rolls

### UNTUNED ANVIL

- Hit
- Hit Choked

### BASS DRUM 1

- Hit
- Hard Sticks
- Hit Damped
- Hand Muted Hit
- Roll Hard
- Roll Soft

### BASS DRUM 2

- Hit
- Hit Damped
- Roll
- Super Ball

### CYMBAL

- Crash
- Crash Muted
- Crash Hard Stick
- Crash Hard Stick Muted
- Roll
- Bowed
- Crescendo

## MILITARY DRUM

- Hit
- Rimshot
- Short Ruff
- Side Stick Hit
- Roll

## PIATTI

- Choked Hit
- Clash Hit
- Short Roll

## SNARE 1

- Hit
- Rimshot
- Short Ruff
- Side Stick Hit
- Roll

## SNARE 2

- Hit
- Rimshot
- Short Ruff
- Side Stick Hit
- Roll

## TAM TAM

- Hit Damped
- Hit
- Roll
- Bowed
- Crescendo

## TAMBOURINE

- Hit
- Shake
- Roll

## TENOR DRUM

- Hit
- Rimshot
- Short Ruff
- Side Stick Hit
- Roll

## TOYS

- Castanets
- Woodblock
- Vibraslap
- Cowbell
- Sleigh Bells
- Short Guiro
- Long Guiro

## TRIANGLE

- Open Hit
- Hit Muted
- Roll

## MICS & MIXES

### SIGNALS

- Mono
- Close
- Tree
- Out
- Ambient
- Balcony
- Leader
- Stereo
- Mids
- Sides
- Close Wide Pan

### SPILL MICS

- Spill (Strings)
- Spill (Woodwinds)
- Spill (Brass)
- Spill (Percussion)
- Spill (Full)

### MIXES

- Mix 1 (Full)
- Mix 2 (Jake Jackson)
- Atmos (2 — front & rear)

## APPENDIX C — DEFAULT CC MAPPINGS

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Tree	25
Outriggers	26
Ambient	27
Mono	28
Leader	29
Close Wide	30
Stereo	31
Mids	33
Sides	34
Balcony	35
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Spill Woodwinds	37
Spill Brass	38
Spill Percussion	39
Spill Full	40
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