The CineStrings Core Library is Cinesamples' orchestral string sample library for Kontakt. Recorded at the world famous SONY Pictures Scoring Stage in Los Angeles, and mixed by veteran legend Dennis Sands.The CineStrings Core Library covers the essentials of the orchestral string section, and functions as a foundation in any scoring palette.

CineStrings is revolutionary in its power and simplicity for recreating the sound of the orchestral string section. The library was designed by composers, for composers, with direct feedback from the film music community during its development. The result is a string library that is easy to use, composer-friendly, with unparalleled recording quality. CineStrings library does not require you to purchase any additional sample playback software, and is licensed to work with the Native Instrument's free Kontakt Player. All you need is a sequencer like Logic, Cubase, Digital Performer, LIVE, Protools, Cakewalk, or even Apple GarageBand and you'll be up and running. You can also use CineStrings with your favorite notation software such as Sibelius or Finale.

DENNIS SANDS

Keeping the trend we started with CineBrass, CineWinds, and CinePerc, we were able to bring Dennis in to once again lend his legendary talent to this project. Dennis is one of the most sought after mixers in Hollywood. His credit list is a sight to behold (Back to the Future, The Avengers, Captain America, Shawshank Redemption, American Beauty), and includes some of our favorite scores. As usual, it was an honor to work with Dennis; his contribution to CineStrings is the crucial ingredient that gives the library its trademark Hollywood sound.

THE SONY PICTURES SCORING STAGE

The Sony Pictures Scoring Stage is the largest motion picture scoring venue in the world. The main scoring area has remained unchanged since the 1930s to preserve its unmatched acoustics and unique ambiance. It measures 93' wide by 67' long by 34' high. One of the first scores recorded there was the **Wizard of Oz** (Herbert Stothart). Its success allowed the stage to become primarily dedicated to the art of the film score.

John Williams has used the stage on many occasions for scores such as **ET**, **Schindler's List, War Horse,** and **The Adventures of Tin-Tin**. Other scores recently recorded there include **Toy Story 3** (Randy Newman), **Spider-Man** (Danny Elfman), **Alice in Wonderland** (Danny Elfman), **Transformers: Dark of the Moon** (Steve Jablonsky), **Wall-E** (Thomas Newman), **The Amazing Spider-Man** (James Horner) and **Star Trek** (Michael Giacchino).

OVERVIEW

The CineStrings CORE library contains the basic set of articulations needed to do most of the traditional writing and programming for the string section:

•Non-vibrato, vibrato and espressivo sustains with smooth dynamic morphing across five dynamics and across each vibrato position.
•Natural legatos with smooth dynamic morphing across four dynamics
•Spiccato @ 7-8xRR @ pp to f
•Staccato @ 5-6xRR @ pp to fff
•Marcato @ 3xRR @ p to ff
•Sforzando Overlay @ p to ff
•Tremolos @ p to f
•Sul-Pont Tremolos @ p to f
•Trills (Whole-Step and Half-Step) @ p to f
•Pizzicato @ 5xRR @ p to f
•Bartok Pizz @ 3xRR
•Col Legno @ 3-5xRR
•Harmonic Sustains @ p to f

SPECS

Technical Specifications
- Kontakt Player 5.3 or higher
- Kontakt (Player) 5.3 supports: Stand-alone, VST®, Audio Units, RTAS®, AAX® (Pro Tools® 11 and higher), ASIO, Core Audio®, WASAPI
- Native 64-bit support for stand-alone and plug-in versions on both Mac & PC
- CineStrings is compatible with all major DAWs and with other music notation software.

Minimum System Requirements
- PC: Windows 7®/8® (64 Bit), Intel® i5 (second gen) 2.2+ GHZ or AMD Phenom II X4, 12 GB RAM (8GB free required to load ALL patches on Full Mix)
- Mac: OS X 10.7+, Intel® i5 2.2+ GHz (or 2008 Mac Pro 8-core Xenon), 12 GB RAM
- Minimum of 12 GB RAM
- Minimum of 50gb Hard Drive Space on 7200rpm drive

Recommended System Requirements
- PC: PC: Windows 7®/8® (64 Bit) Intel® i7 (4th Gen) 3+ Ghz or AMD FX93xx 8-Core, 24 GB ram
- Mac: OS X 10.7+, Intel® i7 (4th Gen) 3+ Ghz (or 2010 Mac Pro 12-Core) 24 GB Ram
- 32 GB Ram is recommended for the Full-Microphone load sets
- We highly recommend having SSDs run these samples. You will need exactly 44.8GB (PC) or 48.25 GB (MAC) of free space.

INSTRUMENTATION

- • 16 - 1st Violins

- • 12 - 2nd Violins

- • 10 - Violas

- • 10 - Celli

- • 7 - Basses

CineStrings was performed by some of Hollywood's finest string players. These phenomenal musicians have played countless times on the very same Sony Scoring Stage this library was recorded. Between them they have worked with the majority of modern big-name film composers.

We saved the Strings for last in our "Cine" orchestral series because they are by far the most difficult section to recreate with samples realistically. By saving them for last we were able to bring all of our experience from the previous Cine-Libraries to the table, and really use our studio time effectively. Between the world-class players and our sharply honed sample recording techniques, we think the end result is something really special.

Now with CineStrings' release, you use all of our libraries to create the full orchestra with unparalleled blending of samples. With our entire orchestral collection, you can recreate the exact sound heard on some of your favorite scores - because you're triggering world-class Hollywood players, in the same room, recorded by the same engineer!

THE PATCHES

Single Patches

01 Violins 1 Articulations
02 Violins 1 True Legato
03 Violins 1 Pizzicato and Col Legno
04 Violins 1 Harmonics
05 Violins 2 Articulations
06 Violins 2 True Legato
07 Violins 2 Pizzicato and Col Legno
08 Violins 2 Harmonics
09 Violas Articulations
10 Violas True Legato
11 Violas Pizzicato and Col Legno
12 Violas Harmonics
13 Cellos Articulations
14 Cellos True Legato
15 Cellos Pizzicato and Col Legno
16 Cellos Harmonics
17 Basses Articulations
18 Basses True Legato
19 Basses Pizzicato and Col Legno
20 Basses Harmonics
21 Full Ensemble Articulations – Full Mix
22 Full Ensemble Articulations – Multi-Mic
23 Full Ensemble Sustains – Full Mix
24 Full Ensemble Sustains – Multi-Mic
25 Full Ensemble Pizzicato and Col Legno – Full Mix
26 Full Ensemble Pizzicato and Col Legno – Multi-Mic
27 Full Ensemble Harmonics – Full Mix
28 Full Ensemble Harmonics – Multi-Mic

Multi Patches

01 Violins Octaves Articulations
02 Violins Octaves True Legato
03 Violins + Violas Octaves Articulations
04 Violins + Violas Octaves True Legato
05 Violins + Violas + Celli Octaves Articulations
06 Violins + Violas + Celli Octaves True Legato
07 Cellos + Basses Octaves Articulations
08 Cellos + Basses Octaves True Legato
09 Violins + Violas Unison Articulations
10 Violins + Violas Unison True Legato
11 Violas + Cellos Unison Articulations
12 Violas + Cellos Unison True Legato
13 Cellos + Basses Unison Articulations
14 Cellos + Basses Unison True Legato
15 Full Unison Articulations
16 Full Unison True Legato

Note: When loading these patches for the first time they may load slowly as the .wav cache builds. On subsequent attempts they should load much more quickly.

Articulation Patches

Our basic **Articulations Patch** includes Spiccato, Staccato, Legato, Sustains (with 3 vibrato settings), Tremolos (including sul pont), and both half-step and whole-step trills.

True Legato Patches

What is **True Legato**? True legato means that we sampled all of the intervalic leaps throughout the ranges, both upwards and downwards, for each string section. When you play a **True Legato** patch, it instantly analyses the intervals you play, then plays the appropriate transitional leap between the notes. The result is a smooth and realistic legato performance. For most of our sections we did this at 4 dynamic levels, again using our dynamic morphing to blend seamlessly from pianissimo to fortissimo. A key feature of our legato patch allows you to switch between **Monophonic** and **Polyphonic Legato** mode. **Monophonic** mode allows for "soli" line playing while **Polyphonic** mode allows you to play lines of up to 3 notes simultaneously, while maintaining the appropriate transition samples between all notes. This is especially effective when playing chords that need to connect in a realistic way.

The true legato transitions that are enabled by default for the True Legato patches are the same samples that are available in the articulations patches. We just have them available as one patch for your convenience.

Pizzicato and Col Legno Patches

These patches are similar to the articulations patches, but only have two articulations: pizzicato (including bartok-style pizz where the string is snapped back onto the fretboard) and col legno.

Harmonics Patches

These patches are very straightforward, just sampled string harmonic sustains.

Split Patches

We have included every articulation (Half-Step Trill, Sforzando, Col Legno, Spiccato, etc.) as separate patches. These are derived from the articulation patches and pizzicato and col legno patches. They will allow you to save memory space if you only need a Spiccato and a Sustain patch, for example. While this may increase your track list, many composers choose to have a lot of patches loaded and switch via track instead of keyswitch or velocity.

MULTIS

We are including a series of "unison" and "octave" Kontakt multis which have been pre-set to allow for quick "big" patch performance without having to track split and transpose. These are made from the original patch lists with some minor adjustments to the script to allow for the octave splitting.

The MAPPING Tab - Articulations Presets

All of the mapping in the Articulations Patches is dynamic, so you can select from five intuitive presets in the user interface. A custom mapping grid is offered for users who wish to customize the parameters beyond the presets. Every parameter and value is changeable and nearly any combination is possible. Of course, if you choose not to tweak, you can stick with one of the five preset mappings (recommended).

We have provided different preset options to trigger these samples based on the different ways most composers like to work. In the main Articulations patches you can choose from a variety of presets using the buttons on the left side of the MAPPING interface:

•Velocity Map - The short articulations are mapped based on velocity from shortest to longest. Lightly tapping the keys will trigger the spiccato shorts, while pressing very hard will trigger marcato shorts. Hold the sustain pedal down and hit a key to trigger the sustain samples, and then overlap midi notes to trigger legato samples. Use the mod wheel to control dynamics for both long and short articulations.

•Velocity Inverse Map - Similar to the Velocity Map, except the shorts are mapped inversely; from longest to shortest as velocity increases. Holding the sustain pedal will still give you sustains and legato, and the mod wheel still controls all dynamics.

•Keyswitch Map - Use keyswitches (white keys from C0-A0) to choose between articulations. Mod wheel controls all dynamics.

•Keyswitch Velocity Dynamics Map - Use keyswitches to choose between articulations. Velocity will determine the dynamics of the short notes, mod wheel will control dynamics of sustain samples.

•MIDI CC Map - Lower velocities will trigger sustain samples, and higher velocities will trigger short notes. Use mod wheel for dynamics.   Controller #3 will let you choose which shorts are triggered.

For the Pizzicato and Col Legno patches we have included similar mapping presets, but adjusted slightly to make sense for only two articulations. For the Pizzicato articulation, if you trigger the very highest dynamic range you will get the bartok pizzicato technique - which involves snapping the strings very hard so the string slaps back onto the fretboard.

Note: If you decide to use keyswitches, you are provided with a latching or non-latching option. When a latching keyswitch is pressed, you will be stuck in that articulation until a different keyswitch is triggered or another parameter takes you to another articulation. If you choose non-latching, the keyswitch will need to be held down continuously in order to trigger that articulation.

The MAPPING Tab - Advanced Controls

You can adjust any of the presets should you desire, and the Custom Map button provides you with a blank set of assignments if you want to build your own.

In the top right box you'll see options for:

　•Sustain Dynamics - Choose how the dynamics of the sustain samples will be controlled; with a controller or by velocity (the latter is not recommended).

　•Short Dynamics - Choose how the dynamics of the short articulations will be controlled; with a controller or by velocity.

　•Vibrato Control - Choose which CC will be used to crossfade back and forth between vibrato sustains and non-vibrato sustains.

Bow Attack Overlay

Back when we created CineBrass, our Orchestral Brass Library, we developed the "staccato overlay" feature. We have taken this in a new MAJOR direction with our new bow-attack overlay. You can quickly switch types of overlay (Marcato, Sforzando, etc) through a CC, which then is "over-layed" on the attack of the sustains and legatos each time you trigger above 110 velocity. This allows you to simulate many different styles of bow attacks and create unique playing styles on the fly. See the "tips and tricks" section later in the manual for a more in depth look at this feature and the best ways to use it!
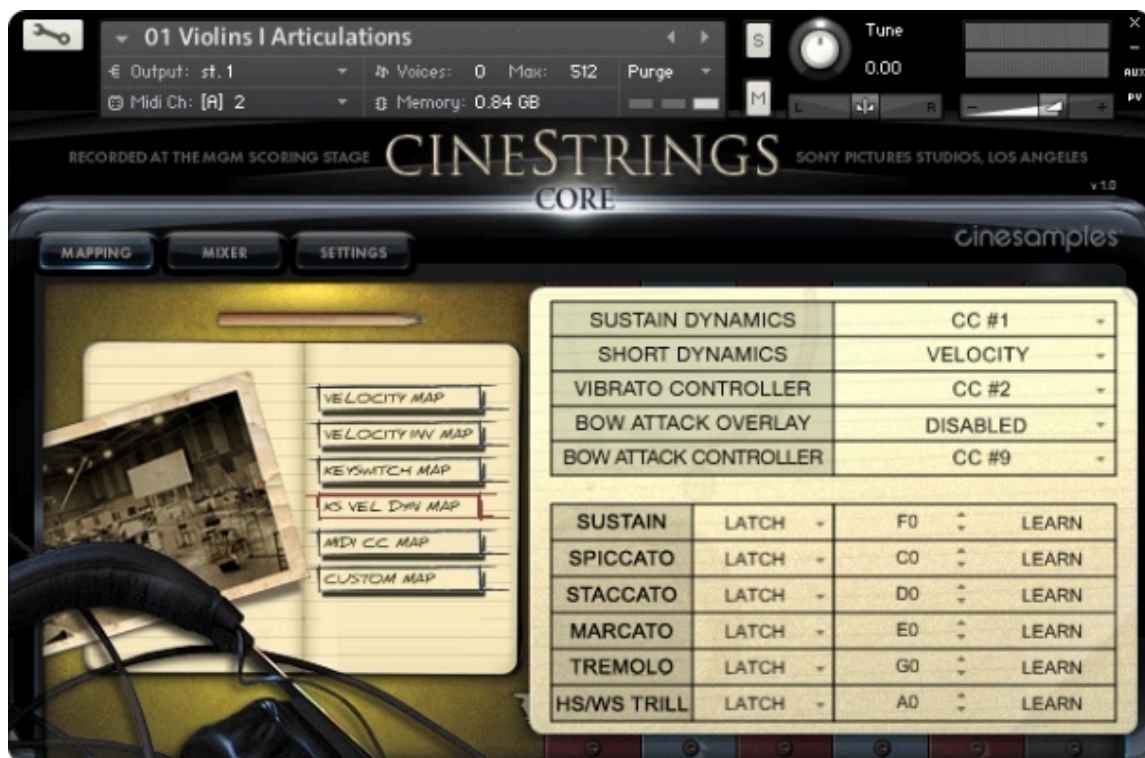
The SETTINGS Tab

This tab provides you with even more control over the way the instrument will behave. The first thing you will notice in the top left section is the large **Legato Speed** knob and the **Legato Volume** knob. The instruments have been optimized so that they sound the best with the position at 12 o'clock. The Legato Speed knob will adjust the sample start point of the actual legato transition sample, so turning it down will make the legato response feel slower. Turning the knob up will cut further into the legato samples, allowing for faster, agile lines. Use the legato volume if you feel like you are hearing too much or not enough of the legato transition samples.

Every knob and switch on this page is capable of being automated, so feel free to draw legato speed or volume automation so that it conforms to your needs on the fly.

The **Mono/Poly** switch allows you to control whether the instrument will be completely monophonic - for single lines - or polyphonic. Our custom polyphonic legato scripting allows you to play up to three legato lines at once - it will intuitively attempt to figure out your intended result and play the appropriate legato transitions between the notes.

You can use the On/Off switch next to the Legato Speed Knob to turn the legato transitions completely off. This will cause the patch to behave more traditionally - playing only sustain samples and shorts - so that you can play chords or combinations of notes without the legato scripting trying to figure out what you're doing and potentially causing dropped notes if it gets too complex. B-1 is programmed as a momentary non-latching keyswitch toggle for Legato on/off. Hold it down to temporarily play with the legato samples off.

To the right of the Legato Volume knob, you'll notice the first effects slot is labeled **Room Tone.** This is a long, empty room tone sample recorded on the same day as CineStrings. When enabled, it will gently fade in whenever a note is played, and then there will be a three second fade out after all notes have been released. It does not stack if you play chords, it just plays the one sample. We denoised the actual string samples to prevent the noise floor building up to crazy amounts when playing chords, so this is a way to get a normal amount of that natural sound back into your mockups!

Next to that we have also provided multiple effects on the right side of the page for your convenience - LowPass filter, Delay, Stereo Imaging, Chorus, Flanger, Distortion and Compression. When using these built-in Kontakt effects keep in mind that they can be very heavy on your CPU.

The SETTINGS Tab - Advanced Controls

Beneath the Legato Speed Knob there are two parameters labeled **Advanced Controls**. The first allows you to set which continuous controller you'd like to use to switch between normally bowed tremolo and sul ponticello tremolo when playing the tremolo articulation. The second parameter sets which controller you'd like to use to switch between half-step and whole-step trills when triggering the trill articulations. By default these are set to CC#2 - the same controller as vibrato.

Under that you'll see the **Hairpin Creator**. This setting allows for you to automatically get very natural "swells" without having to program a series of controller changes. To enable the feature, turn the top-left switch above the Loop button to the "ON" position. Note that the hairpin creator only works with legato mode OFF - it will automatically turn off legato mode when enabled. The Start, Hold, and End, knobs will set how long the crescendo, hold, and decrescendo will occur, respectively. Use the Beat/Time switch to choose between setting these knobs to real time values or tempo-synced values. You can even assign these knobs to controllers if you want to get really crazy!

The dynamics you are crescendoing from, up to, and then back down to, can be selected using the drop-down menus below the three knobs. You can actually set the dynamic range of the hairpins using a CC as well - so for example instead of drawing or playing in large swells for a while and then medium swells for a while like in the old days, you can set the hairpin creator's dynamic range to be wide (pp to ff) with one quick set of recorded CC values, and then later in the piece set the hairpin dynamic range to something less drastic like pp to mf.

The loop button will allow the hairpins you create to keep cycling as long as you hold any keys down. It will reset only when all notes are let go. This is especially useful when you want to play with two hands and you don't have an expression pedal handy.

Use the "Link Crescendo and Vibrato" switch to make the hairpin also affect the vibrato controller - this can be used to create very expressive lines that would otherwise sound dull and flat without doing another pass playing in dynamics and vibrato controller data.

Across the bottom of the Settings tab, you will see more sample controls. When set to Random, the **Round Robin** switch will randomly cycle through different short samples. When set to Cycle, the engine will just cycle through the round robin samples in the same order every time. The RR reset will reset this cycle back to position 1 after you have stopped hitting any midi keys. The RR reset knob controls how long it will take to reset. Turning it all the way down will make the reset occur in 1 second, and turning it all the way up will cause the reset to take 5 seconds.

Turning on the **Sample Start** control will let you use the knob to advance the sample start position. This will make the attack of the note sound less realistic, but can lead to increased tightness and responsiveness from the instrument.

The **Legato Retrigger Delay** knob allows you to control how long after you release a key the release sample will play. This makes it easier to perform the "retrigger legato sample," performed by lifting up and then pressing the same note quickly. This is an actual sample of the section re-bowing the same note.

The **Short Release Trigger** switch will disable the release samples that trigger when you release a marcato sample early, and employ a quick ADSR fade instead. This will sound less realistic but require less CPU and may give you more exact control over the note length.

The MIXER Tab

We recorded CineStrings in a way similar to CineWinds, and CinePerc, and have included the same set of Full Mix, Spot, Close, Room, and Surround mics as mixing options. You can load and unload the different mic samples from your RAM manually by using the on/off switches above their respective faders, and apply reverb using the send knobs in conjunction with the blue reverb knob/switch in the bottom right. Click the "Preset" button below the reverb knob to choose from seven different impulse responses taken from the famous Bricasti M7 hardware reverb. An EQ is also available on the right if you would like to tweak the sound further.

For quick and easy access to different mixing options, cycle through the presets on the left. The various options make use of different mic configurations' unique sound and will give you tremendous flexibility when working in a variety of cinematic settings.

TIPS AND TRICKS

No matter how great a library is, programming a piece of music to sound like real humans played it is hard work. Triggering samples of great players and asking them to pour their hearts into a melody are two very different things. That emotion and musicianship has to be made up for by you, the midi programmer! Sometimes that involves really zero-ing in on a line, transition or crescendo and tweaking things to make it sound as performed as possible. Here are some advanced settings and techniques to aid you in your quest. These explanations go above and beyond the basics that were covered previously in this manual.

Bow Attack Overlay

Bow Attack allows to help change the sound of an attack of a sustain or legato. This way you can program in lines that don't sound repetitive, or if you want that nice "accent" instead of creating a series of fast CC1 and CC11 draws, you can simply add in the Sforzando overlay to give that "zing" to your strings!

Here are the midi CC trigger values (cc9 by default):
0-24: Disabled
25-49: Spiccato
50-74: Staccato
75-99: Marcato
100-127: Sforzando.

The bow attack will trigger, by default, when the keyboard velocity on your longs or legatos is above 111. This can be changed if you desire (see the back-end control addendum). The dynamics of the bow attack are taken from your CC1 controller. So if CC1 is set to 60, you will get roughly a *mf->ppp* sforzando, or a *mp* marcato, staccato, or spiccato.

Also note: By default there is a slight staccato overlay that is triggered when you play legatos extremely fast. This staccato is barely mixed in but does aid in making faster legato transitions speak better.

Soft Attack

On all sustains, if you play between 1-10 keyboard velocity you can create a slightly softer attack - but only on the lowest dynamic layer. This is done with an altered ADSR fade.

Timing
For those of you who really like to have a tight sequence (meaning very quantized-sounding), there are two things that can greatly help you in this process. With all of our short articulations, there is a pre-roll of around 50ms before the "oomph" of the sound. While there is plenty of bow noise and other things happening in this small window (which is why we left it in) this could cause a bit of "delay" to your programming. We recommend either activating the "sample start" (on the bottom of the Settings page) and adjusting it to where it feels good for you (but remember this will cut off the attack a bit), or simply offsetting the midi tracks in your DAW to 50ms + sound card lag (ie. 1024 buffer is around 24ms).

Regarding legato passages - our script has a bit of a buffer built in to help figure out what you are trying to play in the Poly legato mode - if you move to Mono mode, that will help trigger things faster (there is a 50ms delay in Poly mode). The legato transitions when played normally (i.e. not a fast moving line) will take roughly 150ms to land on the next note when the legato speed knob is at 12 o'clock (50%). Turning this knob up will help speed up these transitions if you require it. We recommend, when using the default setting, sliding back the start of your destination midi notes by 150ms to make the sample land right on the desired beat in your sequence.

Dynamic Range
It is recommended to set CC7 defaults at the beginning of your tracks to 90 or so, to act as an overall volume trim. You can use this to set broad levels, then use cc11 in combination with cc1 to help bring expression and life to your string lines.

From our perspective, performed dynamics and actual loudness are two different things and should be controlled separately for the best results, which is why there is only a moderate volume change (more of a timbre change) when you adjust the dynamic control (CC1 by default). If you are dissatisfied with the dynamic range placed on the CC1/Mod Wheel, there is a backend control that can adjust wideness of the dynamic (gain) curve. See the backend control addendum for more details on this control.

Room Tone
Because we had to do quite a bit of noise reduction to this library, we decided to add a knob in the settings page to bring back a bit of the room. We recommend choosing one or two tracks in your sequence to utilize this feature, preferably shorts or pizzicato patches. All but the Spot and Close mics use the same looped material, however the sample start points are random so if you have this on on every track, you won't get phasing, only noise build up. The room tone lasts until the last note is played and then fades out over 3 seconds. If you need to have this on more than one track, we recommend keeping the room-tone knob set to around 33%. If you are just using one patch to add room tone to your piece, setting the knob between 50-75% will be enough to add the room back in. This helps to blend the sound and give a bit of space and "gel" to the sound.

Vibrato Control
We have optimized the script to kill voices when they are not in use between Non-Vibrato, Vibrato, and Espressivo (max vibrato) layers, controllable with CC2 by default. But when the controller is left set a certain way, you are triggering two samples that are crossfaded together. These cc values are:

0-1: Non-Vibrato ONLY
1-30: transition from non-vibrato to vibrato
31-62 : Vibrato ONLY
63-100: transition from vibrato to espressivo
101-127: Espressivo ONLY

Because the script has to "kill" voices when not in use, there are occasions you may hear some voices pop back in if the controller for vibrato is moved too quickly. In the backend there is a "HQ mode" (see Backend Controls addendum) that will turn off this voice killing feature, but creates a much larger voice count (even when not using vibrato), which causes more intensive CPU processing.

We also recommend not moving the vibrato controller much during a legato transition, if you do we recommend limiting the controller to a range where no crossfade is happening so no voices are killed inadvertently. For example if your Vibrato controller is at 31 and you move to 90 during a legato transition you may hear a bit of a bump when the legato is finished and the new type of vibrato sustain is called upon to be the landing note. If you move the vibrato value to 63 before the legato is triggered, then you can move to 90 or even to 100 with no voice killing and it can remain seamless. Again this isn't an issue in HQ mode but then your CPU usage will greatly increase.

Legato Smoothing
As with any legato transition, we captured a performance of sustaining one note, moving to the next, and holding the destination note briefly. Having the whole legato performance gives us room ambiences, and sonic interaction within the instruments and between the players. Because of the nature of these performances, there can be abnormalities in volume shifts that occur naturally. There are many tricks you can utilize to even these transitions out, both within the patches and in your sequencer.

Within the instrument we have a nice midi-learn transition finder where you can change each transition if you wish to get very tweaky with your lines (see the Backend Controls addendum). Second, you can add a CC modulator to the legato volume knob and manipulate the legato samples' volume on the fly. This is good if you are starting a note that has a natural swell in its volume, and if you trigger a legato in the middle of that swell (before it reaches it's peak volume), the legato sample will sometimes "bump" - so in that case you can just turn down the legato volume at that specific point and then ride it back up afterwards.

In your DAW, we recommend doing a bit of volume automation using CC11 (or cc7). In certain cases something like this might be appropriate:
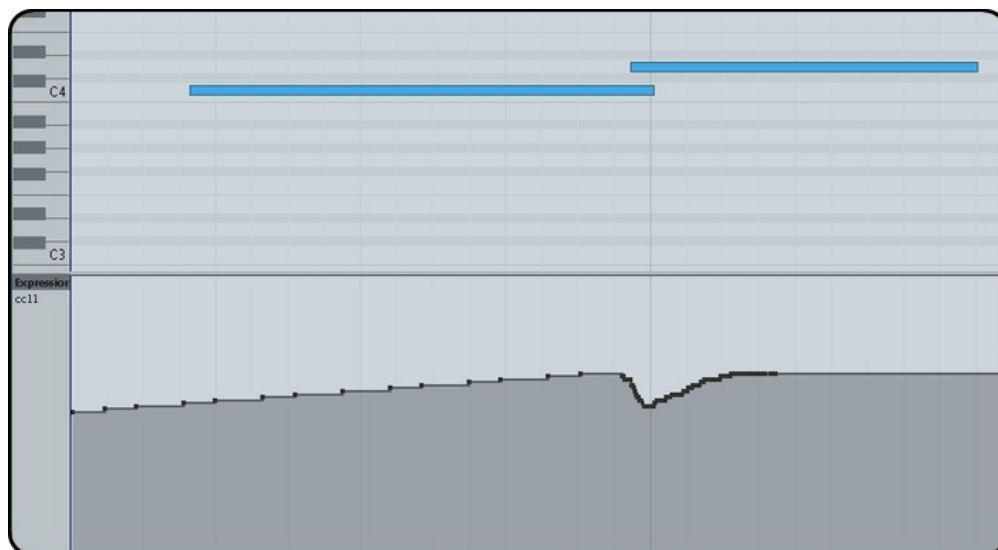
Another little trick when you are writing very slow lines is to turn down the legato speed controller to 0, then change the backend fade1 controller to 350. This will cause a longer crossfade between the prior note and the transition note, which helps in blending, but will make the legatos feel very sluggish. If you adjust the speed knob to 100% then you may want to change the backend fade1 controller to 100 (see Backend Controls addendum), to make the legatos speak faster - but this may cause a bit of "bumping" as well. Feel free to experiment!

The other knob that can be useful in writing legato passages is the Legato Retrigger Delay knob found on the bottom of the settings page. The knob delays the time between the actual release and when the release is actually applied. If you set this all the way down (or off) then the following example will play as follows: sustain, bow-change, legato, sustain.

If you move this knob back up, the last note will still trigger a legato instead of a sustain (because the darker note's release is delayed long enough
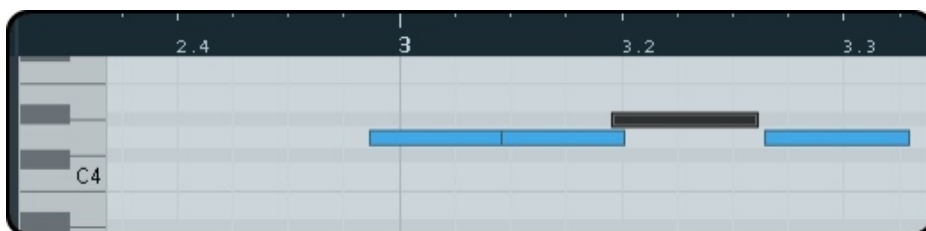
to overlap with the last note). Moving this knob to 0 essentially allows you to have exact control over what is a legato transition or what is a sustain, while turning it up will give you legato transitions even when you accidentally leave a tiny bit of space between the notes.

Polyphonic Legato
Polyphonic legato works for up to 3 voices. You need to trigger the voices all at once if you are trying to activate it. In other words if you play and hold a C, then play a G a beat later, the legato script will think you are moving from C to G. If you play C and G at the same time, the script will know you are writing in two voices. If you need independent line control, we recommend moving to mono-mode, and duplicating the patch in Kontakt and your track in your DAW. This causes little to no memory increase since the sample data is shared between the two. You just don't want to trigger the same note and the same dynamic with both tracks or it will cause phasing.

Legato OFF Trigger
There is a hidden keyswitch built into the articulations patches on the lowest B on an 88 key keyboard (b-1). This momentarily disables the legato transitions to make the library only play the regular sustains. You may want to do this to add more dimension to the attacks when doing rocking-motion in the strings, or if just for one section if you like the way the normal attack sounds instead of the legato transition but you still want the notes to overlap. Since it is a non-latching keyswitch, in order to use it to temporarily deactivate the legato transitions you need to have the keyswitch held down as you play. The effects of the keyswitch will continue to last until you leave a space in your playing for it to reset. If you let go of the keyswitch while sustaining and then continue to play overlapping notes they will NOT utilize legato samples. If you let go for the keyswitch and leave a space in your playing you will return to normal legato mode.

Naked Values
These are the values where nothing is crossfading, so you get the pure performances with regards to the dynamic control (CC1 or Velocity). The rest of the articulations are naked at 1 or 127 if there are only two recorded dynamics.

Sustains:
pp : 0-10
p: 41-50
mezzo: 80-82
f: 107
ff: 127

Spiccato:
pp: 0-30
mp: 80
mf: 100
f: 127

Staccato:
pp: 0-20
p: 60
mezzo: 80
f: 100
ff: 127

Marcato:
p: 0-40
mezzo: 90
f: 127

Sforzando:
mp>n : 0-40
f>p : 90
Sfz>p : 127

Pizzicato:
p: 0-14
f: 126
Bartok (snap) : 127

ADDENDUM: BACK END CONTROLS

WARNING: Back up all of your patches before moving on!

Our intention regarding the CineStrings user experience is that you can load a patch and start writing immediately, with as little time spent fiddling as possible. However, that requires us to make various decisions and assumptions (based on our own experience and feedback from the community) about specific technical settings along the way. Some users have differing opinions/workflows/preferences, though, and would like to have more control over these types of details. If that sounds like you then you're in luck! We've started designing more back end controls to give our team easier command over these technical functions, and since they are there we've decided to explain and make them available to you as well. Please do a "save as" of the patch with a different name before changing any of these values, or make a backup folder with the original instruments. Also please keep in mind that we recommend using the patch with these controls set to their defaults.

If you hit the wrench icon, and go to the Script Editor, you'll notice different tabs containing scripts that help the patch function. The first tab is for the GUI and can be ignored. The other tabs contain various controls which are explained in detail below.
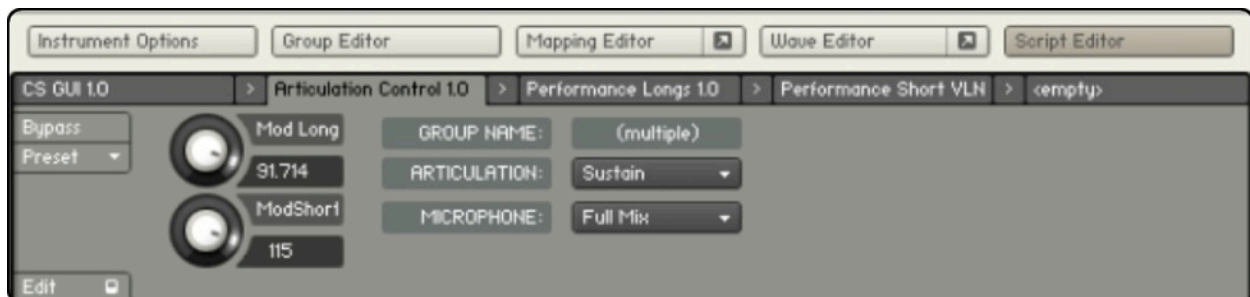
Articulation Control 1.0 Controls

Mod Long
Sets the amount of dynamic range with sustains.
When set to the max value (100), sustains will have the most dynamic range possible. When set to the min value (0), sustains will have the least dynamic range possible. The higher the value, the quieter softer dynamics become. The highest dynamic is unaffected by this control.

Mod Short
Sets the amount of dynamic range with short articulations (spicc, stacc, marc).
When set to the max value (127), shorts will have the most dynamic range possible. When set to the min value (0), shorts will have the least dynamic range possible. The higher the value, the quieter softer dynamics become. The highest dynamic is unaffected by this control.

Articulation
Associates a group (or multiple groups) with a specific articulation. This is used internally and should not be adjusted.

Microphone
Associates a group (or multiple groups) with a specific microphone position. This is used internally and should not be adjusted.

Performance Longs 1.0 Controls

All the controls in this script slot (with the exception of the *octave* control and *HQ Mode*) affect the functionality of legato transitions. The default values of these controls can be reset by holding ctrl and left-clicking the control.

fade1 +/-
Controls the crossfade time (ms) between the first sustain and legato samples.

fade2 +/-
Controls the crossfade time (ms) between the legato and destination sustain samples.

in offset
Offsets the volume (milli db) to any sample in a legato transition being faded IN.

out offset
Offsets the volume (milli db) to any sample in a legato transition being faded OUT.

Leg. Hold
Determines how long (ms) the legato sample holds before starting to fade out into the second sustain sample.

Overlay Vol
Adjusts volume (milli db) of stacatto overlay samples that automatically trigger during rapid legato passages.

MIDI Learn
Small volume adjustments (-5db to +5db) can be made to individual legato transitions by MIDI learning the transition and adjusting the *legato_vol* (milli db) control.

Example:
Let's say you are performing a legato transition from C5 to D5 and feel that this one particular legato transition is too loud in the context of your sequence. You could change the volume of this one individual transition by following three easy steps:

1. Activate the *MIDI Learn* button by clicking on it.
2. Perform the legato transition (in this case, C5 to D5).
        At this point, you will notice the other menus below the *MIDI Learn* button have adjusted themselves to reflect the transition you just played (note, octave, interval, dynamic).
3. Adjust the *legato_vol* control on the right to the desired volume offset (milli db).

Now, every time a C5 to D5 legato transition is played, its volume will be offset according to the *legato_vol's* value. This is a very powerful feature that lets you adjust every single legato transition volume (if you so desire).

MIDI Learn S
Small volume adjustments (-5db to +5db) can be made to individual sustains by MIDI learning the sustain and adjusting the *sustain_vol* (milli db) control. This feature works the same was as the *Midi Learn* works for legatos.

octave
Offsets the instrument's octave. This is useful only for creating custom multi patches.

HQ Mode
If *HQ Mode* is off, unused vibrato layers will be dynamically released and played as the vibrato controller is adjusted. This lowers the amount of voices that are active with sustains. If *HQ Mode* is on, the crossfading between the different vibrato layers is smoother; however, this adds to the active voice count and increases CPU usage.

Performance Short Controls

The number of controls vary between instruments, though the functionality in each remains the same. The controls written below refer to Violins I.

spicc_1, spicc_2, spicc_3, spicc_4
Controls the crossfading split points for spiccato shorts.

stacc_1, stacc_2, stacc_3, stacc_4, stacc_5
Controls the crossfading split points for staccato shorts.
marc_1, marc_2, marc_3
Controls the crossfading split points for marcato shorts.

sfz_1, sfz_2, sfz_3
Controls the crossfading split points for sforzando shorts.

For example: if *spicc_1* is set to 0 and *spicc_2* is set to 40:
If a velocity of 0 is played, only the first layer of spiccato is played.
If a velocity of 40 is played, only the second layer of spiccato is played.
If a velocity of any value between 1 and 39 is played, a crossfade blend of the first and second spiccato layers are played.
The same functionality applies to all articulations and dynamic layers for shorts.

Overlay
Sets the minimum Velocity value that much be achieved in order to trigger a bow attack overlay.

Volume
Controls the volume offset (db) of bow attack overlays.

Performance Ensemble Controls
In the full ensemble patches, there are extra controls in both the *Performance Longs 1.0* and *Performance Shorts 1.0* script slots. The controls allow you to adjust the split points for each instrument across the key range. There are independent split point controls for longs and shorts.
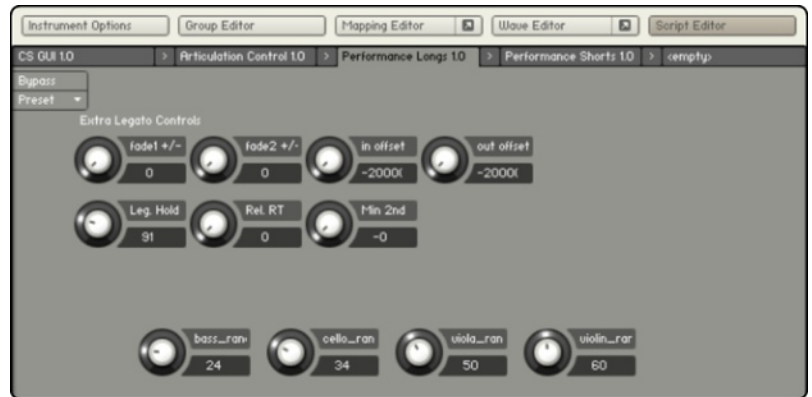
bass_range
Sets the key range split point for the basses.

celli_range
Sets the key range split point for the celli.

viola_range
Sets the key range split point for the violas.

violin_range
Sets the key range split point for violins I and violins II.

For example:
If a MIDI note 38 is played and the *cello_range* knob is set to 39, this not will not trigger the celli; likewise, if a MIDI note 38 is played and the *cello_range* knob is set to 36, this note will trigger the celli.

When a MIDI note is played that is equal to the value of an instrument's *range* knob, the previous instrument will start fading out and the current instrument will fade in.

For example:
If a MIDI note 38 is played and the *cello_range* knob is set to 38, this note will trigger both basses AND celli. The basses will be close to full volume while celli will be at a low volume. If a MIDI note 39 is played, the volume of the basses will decrease while the volume of the celli will increase. This process continues up the key range until basses are no longer triggered and celli are at full volume.

Note: Be smart when adjusting these controls. If an instrument's range control is set above its natural upper range limit, the instrument will not trigger!

The CineStrings CORE Crew

Produced by: Michael Barry and Michael Patti

Project Director: Sam Estes

Scripted by: Patrick O'Neil

Engineer/Mixer: Dennis Sands

Assistant Engineer: Adam Michalak

Recordist: Michael Hobe

Editors: Michael Hobe, Samuel J. Smythe, Anne Dern, Julian Cisneros

Quality Assurance: Anne Dern and Dan Negovan

ENJOY CineStrings CORE!