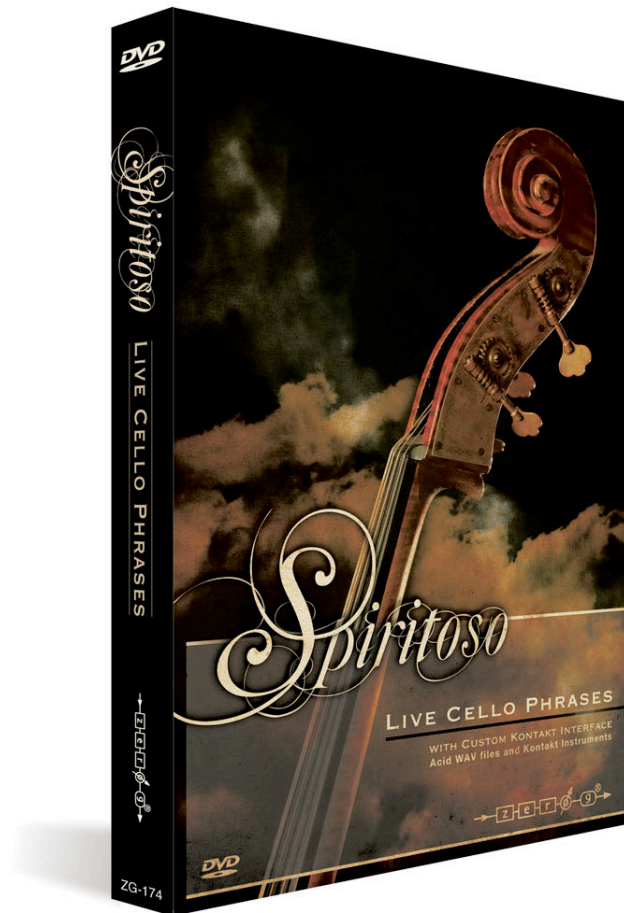


SPRITOSO: LIVE CELLO PHRASES MANUAL



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CHAPTER 1

INTRODUCING SPIRITOSO: LIVE CELLO PHRASES

Performed by Ian Bracken, a world class cellist from the Liverpool Royal Philharmonic Orchestra and recorded in Liverpool's famous Parr Street studios, Spiritoso: Live Cello Phrases is a 17GB collection of thousands of live recorded phrases, rhythms, chords and arpeggios, compressed down to 8GB using Kontakt 4's new lossless compression technology. The patterns automatically sync to the tempo of your projects, and a wide variety of chord, rhythm and scale types can be selected using keyswitches. The dynamic level pp to ff can be smoothly crossfaded by mod wheel, the ensemble size can be zoomed from solo to 12 players, and two mic positions (close and room) can be chosen or blended. All of this adds up to incredible sonic control.

A great tool in itself, Spiritoso also works well blended with other premium orchestral sample libraries as a way of introducing a new layer of realism into your scores.

LIBRARY CONTENTS

Chord/Arpeggio Types (selectable from key switches): Major, minor, sus2, sus4, diminished, augmented, minor 6th, minor 7th, 7th, major 7th.

Rhythm Types (selectable from key switches): quarter notes, 8ths, 16ths, 8th triplets, 16th triplets, quarter note triplets.

Phrase Types: Alberti 8th arpeggios, 8th arpeggios, quarter note arpeggios, 8th chords, quarter note chords, up down (two-note) patterns in 8ths and half notes.

Ensemble Size: continuously selectable from solo to 12 players

Mic Positions: Close and Room (with separate volume and pan controls).

Effects suite: convolution and algorithmic reverbs, delay, modulation effects, distortion, compression.

Patch Types: **Live** (real), **Mutated** (processed, sound designed patches), **Mod Wheel Filter** versions (versions of the Live patches, but with the Mod Wheel controlling the filter for a gently synthesized effect).

WHY IT WAS CREATED

Spiritoso began with composer and sample library producer Dan Graham asking 'what can be done to make state of the art orchestral samples sound more real?' It became a more urgent question when one of his pitches was rejected because, despite an expensive collection of orchestral sample libraries, the client thought that the strings sounded 'a bit fake'.

The underlying problem is that however good premium orchestral sample libraries get, and however hard you try to add realism with slight randomness in the quantizing or tuning, there is always something not quite right, a little artificial, perhaps a little too clean, a little too regular and in tune. And so Dan set to work on an approach designed to work alongside the premium libraries, something that adds an extra edge of realism – a sample library built around recorded phrases and yet maintaining the flexibility needed to wrap the sound around the production and not the other way around.

Six months of combined work by a team of audio editors, scripters and GUI designers followed, with many genuine innovations emerging in the process, and finally having successfully met the initial goals and more, Spiritoso is ready to be enjoyed by the world's most demanding producers and composers.

BENEFITS OF LIVE PHRASES

Because the cellist played the actual patterns you hear, they sound real. They are built from generous 6 bar loops so that no two notes or consecutive bars sound exactly the same - there is natural variation. When you hear slight legato connections between notes it's because that's what he played, not a clever reconstruction of a legato interval using advanced scripting. And with fast rhythms, you are not hearing 5-way round robin performance repetition articulations; you are hearing 6 bars of completely different notes being hit in slightly different ways, flowing smoothly just as they were performed.

FLEXIBILITY

It may seem that triggering pre-recorded patterns may limit your control but there is in fact a surprising degree of flexibility. The tempo will fit your project. The same patterns were recorded at 3 dynamic levels, pp (soft) mf (medium loud) and ff (a bit hair raising), and by controlling this with your mod wheel (or by automating the mod wheel CC1 controller in your host sequencer) you can make the patterns constantly undulate, expressively following the crescendos and diminuendos of your compositions, and you can even use this mod wheel control to accent particular notes and therefore create syncopations and rhythmical emphasis tailored exactly to the needs of the music.

As a case in point, with the 'Rhythms' patch you can automate the rhythm-type key switches (e.g. 8ths, 16ths, 8th triplets) in fine detail in your sequencer, and therefore build your own custom rhythm patterns, and finally add accents by automating the mod wheel dynamics.

THE HIDDEN POWER OF THE UNOBTRUSIVE

Whereas some of the patterns might start to sound too recognizable if overused, others are very neutral, for example simply going up and down from root to fifth, or straight rhythms played on one note - that is to say, patterns which will blend unobtrusively within a more complex piece of music, whilst imparting the elusive quality of realism, expressiveness, humanity and live playing which is still missing from other expensive, beautiful, premium orchestral libraries. You may find these 'Up Down' and 'Rhythms' instruments to be the ones you keep going back to.

6 x ROUND ROBIN

These instruments have a 6 x round-robin effect created by randomizing the start point of the 6 bar loops, which greatly helps realism by avoiding machine-gun effects.

LIMITATIONS

Spiritoso uses Kontakt 4's Time Machine 2 algorithm to sync to the tempo of your projects, which can introduce slight artifacts into the sound, especially at slower tempos. The effect is a bit more noticeable on the stereo room mics than the mono mics. However, at slow tempos using the 'Double Tempo' option will improve the sound.

REQUIREMENTS

Kontakt's Time Machine 2 algorithm requires it to run entirely in memory. It is recommended therefore that you use this in a 64bit environment with over 4GB RAM. Kontakt version 4.2.2 or above needed.

CHAPTER 2 USING SPIRITOSO: LIVE CELLO PHRASES

UI: Main Tab



At the bottom of the UI there are 4 tabs: Main, Effects, Master EQ and Credits. When you first load any instrument by default it loads with the 'Main' tab active.

Key Switches:

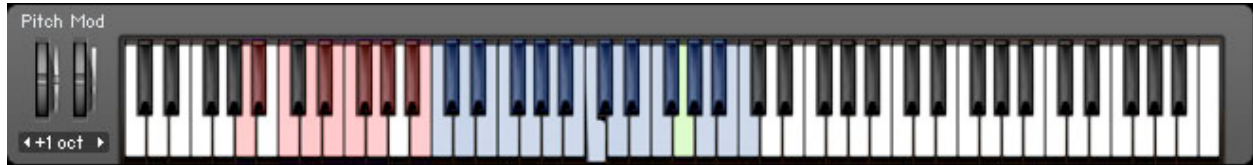
At the bottom of the UI there's a big keyboard just over an octave in length. This shows which scale or rhythm types are available (e.g. Major, Suspended 2nd, etc.), what key to find them on, and what switch is currently selected.

OK, time to concentrate – complex explanation coming... The keys we chose for each chord type make a *kind of* sense, or at least they would in the key of C. For example, assume you want a Dsus2 arpeggio in C, then it makes sense that D triggers Sus2, because in C major, D is the note that gives the chord its Sus2 quality. Likewise, in a C augmented scale, G# is an important note that provides the augmented quality, and so G# was chosen to represent Augmented chords.

However, since most of your chords will *not* be C major, this design choice of ours only makes a *kind of* sense, because the key switches stay the same whatever key you're in. D still gives Sus2 whether you're in C, B, D# or any key, and likewise G# will give you an Augmented chord whatever key you're in. We hope that at least this approach might help you remember where the key switches are, but if it doesn't, just look at the big UI keyboard for a reminder.

To help you understand what each chord type actually means, we are proud to unveil our brand new 'DGK' technology (**Dancing Green Keys**, of course), about which below:

The Kontakt Keyboard:



If you look at the Kontakt keyboard at the bottom of the whole virtual instrument you will see that **the key switches are highlighted in red**, i.e. to the left between A-1 and B0. You can audition chord types with your mouse on the Spiritoso UI if you like, but it's best to use your physical MIDI keyboard, because your sequencing software will not record selections done on-screen.

The **blue notes** of the Kontakt keyboard show you the active range of available notes, from C1 to C3. The exception here is the 'Mutated' sounds, in which the top zone is stretched in pitch across the whole keyboard.

In case you're thinking that a two-octave range is a bit small, remember that arpeggios starting at C3 really go up to C4 notes, and so it really covers a three-octave range.

The **Dancing Green Keys** are an innovative touch dreamed up by the scripter Mario Krušelj. When you trigger a pattern the green notes display the notes being played, for a handy visual explanation of what you're hearing.

The Mod Wheel Expression Monitor



All the patterns were recorded at three levels: pp, mf and ff, which you can glide between using your Mod Wheel. As you do this the attractive LED-like display shifts colour from cool blue to red, for helpful visual feedback. As with a real cello performance, the low to mid range is sweet, then it starts to become intense around the ff region with squeaks, grinds and double-hit strings giving a more aggressive sound.

Using the Mod Wheel to control the dynamics is an essential part of bringing this library to life.

MOD WHEEL TIPS:

Using the Mod Wheel for Expression

By changing the Mod Wheel level throughout a piece of music, a simple cello accompaniment can sit in a mix continuously evolving and expressing the dynamics of the music – swelling into fills and dropping down where needed. This way, the simpler Spiritoso instruments like the **Up Down** instruments and the **Rhythms** instrument can glue together a mix with a sense of expression and live performance, while blending in exceptionally well.

Using the Mod Wheel for Realism

Plenty of Mod Wheel movement will greatly increase the realism by making sure that the cello part is always evolving, not repeating itself.

Using the Mod Wheel for Accenting Notes

Another important use of the Mod Wheel is to accent particular notes. This is especially important with the **Rhythms** instrument, which could get repetitive if left running with no expression. By accenting certain notes within a bar, you can get realistic sounding syncopated effects.

The Players Control



Each Live instrument defaults to 12 players, the maximum. You can reduce your ensemble down to solo by left clicking your mouse and pulling it to the left of this display.

The large ensemble effect is being created by layering 12 performances from one player, and although it does therefore sound different from a real room full of players, this layering does add the thickening and widening effect you would expect from a large ensemble. So, for the absolute maximum realism you might prefer to go Solo, but for the biggest, thickest sound, 12 players is best. Which you choose will depend on whatever sounds best in your piece.

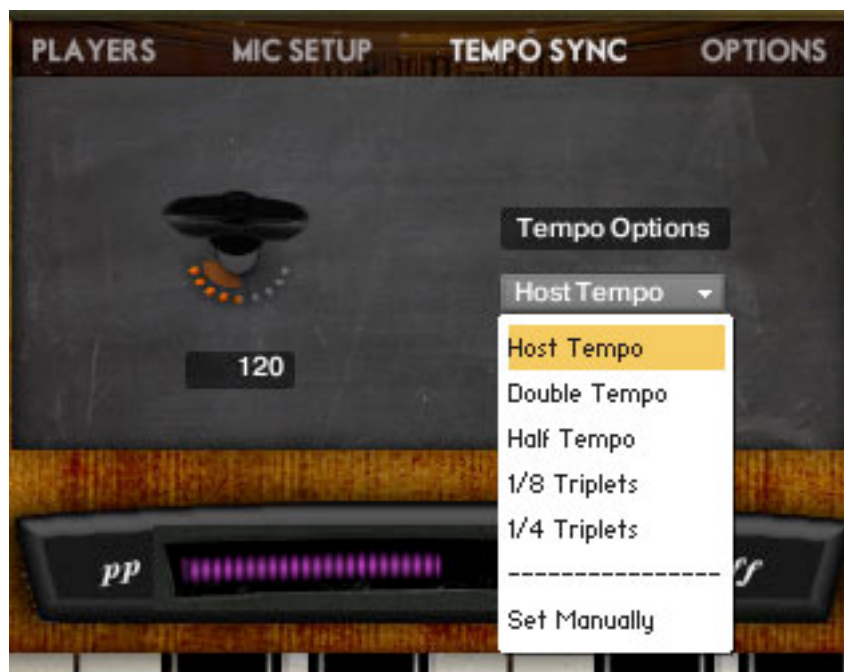
Mic Setup



The cello was recorded with a single close mic and a stereo pair of U87s in an XY pattern at 15 feet.

The two positions sound quite different, so it's best to play around and find the right blend for your piece. The Close mic alone has the benefit of more intimacy, it has a more natural sound, and it uses far less memory. The Room mics have the benefit of adding depth, size and colour to the sound.

Tempo Sync



By default Spiritoso will sync to your host sequencer. When you select the 'Host Tempo' pull-down menu you have the option to double or half the tempo, or even alter it into a triplet division relative to the host tempo. Note though that unless you're looking for an interesting polyrhythm or syncopated effect, it's better to use the true triplet nki instruments than stretch 4/4 patterns into triplets, for more natural bar-start accenting. You also have the option to switch off host sync and put in a manual value using the tempo peg.

Hint: for some wild tempo changing effects you could switch to Set Manually, right click on the tempo peg, learn MIDI automation, wiggle a cc controller then sequence cc movements. It's hard to imagine *why* you would do that, but it's nice to know that you can.

Options



For most instruments there is only one option: **'Al niente'** an Italian musical term meaning 'from nothing'. When this is selected the Mod Wheel fades up from silence instead of starting from a quiet but audible pp. This might be very useful if you wish to use the Mod Wheel (or CC1 automation) to fade Spiritoso completely in and out of a piece.

For those instruments with 'Chords' and 'Up Down' in the file name, there is also a **'Direction'** switch, which flips the pattern from Up Down to Down Up. In the Up Down and Chord **Triplet** instruments, the Direction switch alters the rhythm pattern from low low high to high low low.

UI: Effects Tab



When you first select the 'Effects' tab (at the bottom of the Spiritoso UI), it defaults to the 'Easy Edit' screen, giving you a snapshot of available and selected effects, with their main controls available. For more detailed editing click the 'Easy Edit' tab and go into the detailed settings for each effect type.

There is a nice impulse reverb available by default (with two others available in the more advanced settings), but for the best possible results you are encouraged to disable this and use your own favourite high end reverbs.

Using the other effects you can go a long way towards turning Spiritoso into the ultimate retro (c. 1780) synth. It's what Mozart would have wanted.

UI: Master EQ Tab



The EQ tab (at the bottom of the Spiritoso UI) allows you to adjust the overall tone. For maximum control a decision was made for the raw samples to be left flat, with no EQ or compression. This means that a little Kontakt EQ is being used to sweeten the sound, but given the slightly average quality of the built-in EQ you are encouraged to disable this and use the best EQ and compression plugins you have for best results.

UI: Credits Tab



The people who built this.

CHAPTER 3

INSTRUMENTS GUIDE

The Instruments folder has 3 different groups of sound:

1. Live
2. Mutated
3. MW Filter

1 - Live Sounds

These are the realistic sounds, playing back the patterns recorded. The different types of pattern are:

Arpeggios

These are the notes of a chord playing in a sequence, either in 8th notes (quavers) or quarter notes (crotchets). A wide range of arpeggio chord types are available using the key switches, from the more common major and minor to more interesting options like diminished, 6ths, 7ths, suspended 4ths etc. One very useful chord type is '5ths' which plays just root notes and the 5th above, making it ambiguous between major and minor and so useable with either.

Alberti 8ths are a type of arpeggio pattern common in Baroque music.

The '**Polyrhythm**' patches have three-note accenting within a 4/4 meter. The effect is that the accent keeps drifting onto different beats in successive bars, an effect which can help the cello part to feel more natural and less mechanically repetitive. Try it and see if it works with your piece. Exposed in the mix it could make a 4/4 piece seem to be in 6/8 and confuse the listener, which could be a good thing, if you're a master of mystery and obfuscation.

The '**3-4**' instrument indicates that it is in 3/4 time.

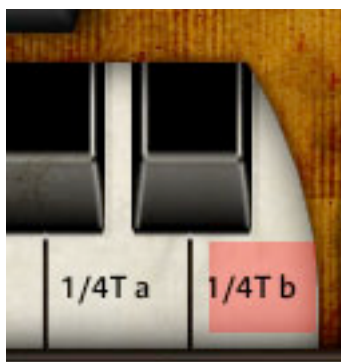
Chords

These have a two-note up down quality and contain two or three notes at a time, thus making chords. Using the GUI (Main/Options/Direction) you can switch the Up Down pattern to a Down Up pattern.

Rhythms – IMPORTANT!

There is only one Rhythms instrument, **but this may be the most important nki in the whole library**, because it is incredibly flexible. Unlike all the other instruments, this only plays one note but in different rhythm patterns, chosen using key switches. Benefits of the rhythms instrument are:

- (a) You can play whatever notes you want rather than being bound by a preset pattern
- (b) By **automating the key switches** in your sequencer you can build up complex rhythms – almost any rhythm that you could want. There is more on this in Chapter 4 – Tips.
- (c) Of all the instruments, the Rhythms blend the most discretely into a piece, gently imparting expression and realism without being obvious.
- (d) Quickly repeating rhythms are often the weakest part of even the best orchestral sample libraries, and this instrument, which really excels in this area, can really help to hide the fakery.



Rhythms note #1: there are **two types of quarter note triplets**. 1/4T(a) has longer notes while 1/4T(b) has shorter staccato notes.

Rhythms note #2: The rhythms were recorded with **accenting on the first beat of every bar**. Players will often do this naturally to emphasize the bar starts, and having this as part of the rhythms instrument helps realism and also gives a sense of urgency and momentum to the sound.

Up-Downs

Like the Chords instruments, they have a two-note up-down quality. Using the GUI (Main/Options/Direction) you can switch the Up Down pattern to a Down Up pattern.

As with the Rhythms instrument, these **blend exceptionally well into arrangements**, giving a sense of realism and expression without jumping out of the mix. By sticking to two notes, they allow other parts of the mix to express the melody and harmony while doing a great job of gluing the sound together.

2 - Mutated Sounds

Sound design techniques have been used under the hood to take the sounds off into glorious organic-synthetic soundtrack territory. The pitch ranges have been extended by stretching the top zone across the whole keyboard which allows you to use it as a powerful, inspiring pad or pattern generating synth. The result can be quite hypnotic, organic and dream-like, reminiscent of Hans Zimmer's Inception score.

3 - MW Filter Sounds

These are the same as the Live sounds, but with the Mod Wheel mapped to a filter. These can be handy to bring an instant hybrid synth edge to whatever pattern you wish to use.

Filter Tip: if you load both the Live and MW Filter versions at the same time it uses no extra memory, and so you could have each on a different MIDI channel and switch between them as you see fit.

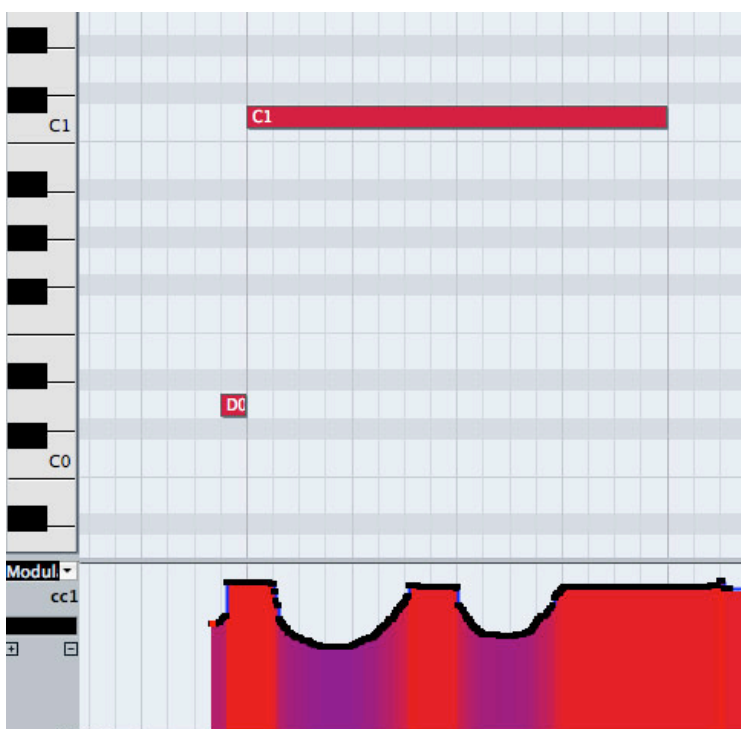
CHAPTER 4 TIPS

Here we present some tips to help you get the best out of the library.

Tip #1 – Use the Mod Wheel for expression and realism

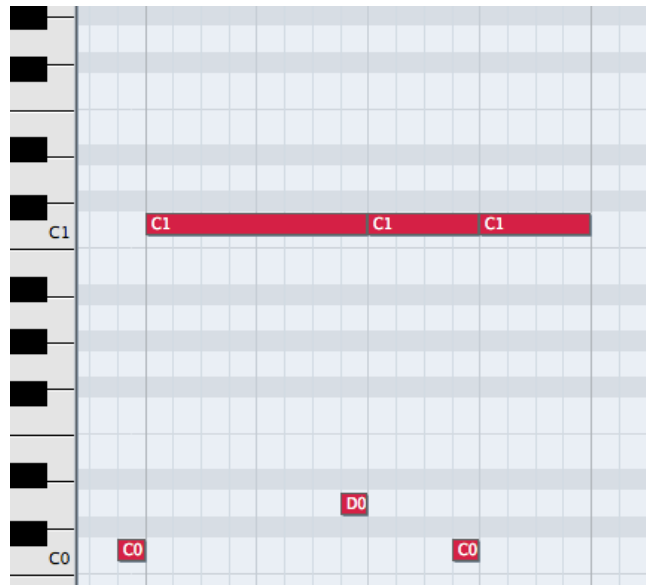
Just to labour the point, for expression and realism, **keep moving that Mod Wheel**, and automate the CC1 controller in your sequencer so that it's always moving across the piece of music. This will help the cello patterns fit in with your music by rising and falling in intensity, and will add realism by preventing it sounding repetitive.

Tip #2 – Use the Mod Wheel for accenting notes



This image shows how you can use the Mod Wheel (and CC1 Automation) to **accent notes**. If you create a sequence using the Rhythms Instrument with just 8th notes playing, by increasing the Mod Wheel on certain beats a syncopated rhythm can be created.

Tip # 3 - Create custom rhythms in your sequencer



With the Rhythms instrument, you can create complex custom rhythms by sequencing the key switches – for example having 2 beats of 16ths, 1 beat of 8ths and 1 beat of 16ths, as per the example above. To do this you need to re-trigger the pitched note (above it's a C1) whenever the rhythm changes, and it is advised to place the key switch note a 16th note before the new rhythm begins, to give Kontakt a chance to register the keyswitch.

Tip #4 - Use negative delay in your sequencer (or trigger the samples early)

Part of the greatness of the cello sound is in the attack transient, which comes in fairly slowly, reaching the peak of the attack around 50ms. Because we recorded the whole attack it will have the effect of always appearing a little late, peaking 50ms after the beat. The remedy is to set up a negative delay in your sequencer. Try values between -30ms and -50ms to get it locking in properly. Alternatively move all the notes before the beat by trial and error until it sounds in time.

Tip #5 - Keep going back to Rhythms

The **Rhythm** Instrument has a great quality of being able to sit in a mix without being obvious, and unlike all the others allows you to play any notes and chords that you like. It's a flexible, general musical tool.

Tip #5 – Use your own reverbs and EQs

If you have great reverb and EQ plugins of your own, disable the Kontakt versions and use yours instead. The supplied Impulse reverb is pretty good, but you may have better. The Kontakt EQ is quite neutral but there are many better sounding EQs out there, especially if you're looking for some vintage character.

Tip # 6 - Use it as glue for your tracks by hiding it in the mix

It sounds great when heard loud and proud, but it has a whole extra role when somewhat hidden in a mix, especially with the more subtle Instruments like **Rhythms** and the **Up Down** Instruments. In a complex mix it will be barely audible because of the rich sound and repeating quality, and yet it will glue a track together like hi-hats or acoustic guitar strumming, while adding a beautiful halo of feeling, *especially if you automate that Mod Wheel expression.*

Tip #7 – Blend it with your other string libraries

Mixing in the more natural, flowing sound of Spiritoso with the more expansive rich sound of the best string libraries will result in a sound better than either alone.

Tip #8 – If you drop under 110bpm, use Double Tempo

Below 110bpm the Kontakt Time Machine 2 algorithm will start to sound grainy. A useful remedy is to select 'Double Tempo' in the Tempo Sync options.

FINAL WORDS

With its live, fluid phrases and incredible level of control, Spiritoso: Live Cello Phrases is a unique product that will add a new level of realism to your orchestral sequences.

Enjoy!

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