Straight Ahead Samples - Tenor Colossus

User Guide

Introduction

Thanks for purchasing **Tenor Colossus**, part of our **New Standard** series of instruments.

We are looking forward to hearing any music you create with this library, so please don't hesitate to shoot us an email with a link.

For any technical support questions, email us at support@straightaheadsamples.com.

Installation

Along with your copy of **Tenor Colossus** you need to download Native Instruments' Free Kontakt Player and install it on your computer. Go to this link if you need the free Kontakt Player: https://www.native-instruments.com/en/products/komplete/samplers/kontakt-6-player/

1. After ensuring that you have Kontakt installed, go to your email and follow the library download instructions you received after purchasing.

2. Open **Kontakt**, open the Browse panel on the left and click the "**Libraries**" tab. Click "**Manage Libraries**."

3. Select **"Launch Native Access."**

4. In Native Access, click **"Add a serial"** in the upper left and enter the **serial number you got via email.**

5. Navigate to your newly created Tenor Colossus folder and select it. If you need more info about this process, go to: https://support.native-instruments.com/hc/en-us/articles/115000685889-Setting-Up-a-Third-Party-KONTAKT-Library

6. That's it! You're all set and ready to use the instrument.

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Key Features

• Dark and voluptuous vintage 1962 Selmer Mark VI tenor saxophone performed by a seasoned professional jazz player

• **The New Standard** method of sampling. Over **2,000** samples per note for a level of detail and realism never before possible. Goes beyond simple round-robins and legato transitions to a truly unprecedented number of note variations.

• 2 microphone positions (close and room), with custom bleed convolution reverb

• "Smart Delay" feature which analyzes dozens of details about the played phrase and intelligently selects the appropriate samples. Works in tandem with our New Standard sampling method, to eliminate the need for auditioning countless keyswitches just to create a realistic melodic phrase.

• "Reconstructed Vibrato" the recreates the timbral embouchure characteristics of a real player's vibrato.

• All the standard articulations required of a saxophone player in this style (legato, staccatos, falls, trills, scoops, glisses, etc).

Interface
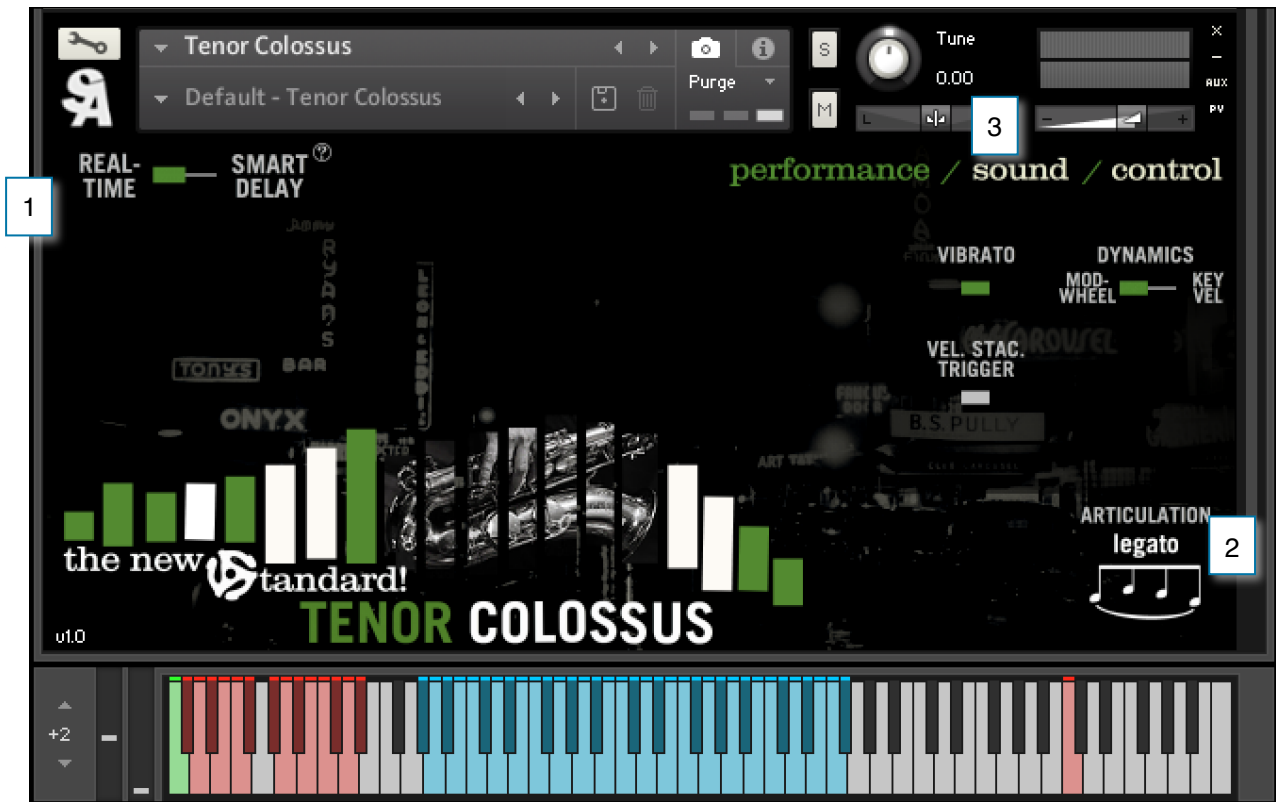
The interface and key layout are designed to be as simple and straightforward as possible. The interface is laid out with the following features:

1. **Smart Delay vs. Real-Time** playing modes. In many ways, this is the backbone of the concept behind The New Standard series of instruments. Read more below details in the Smart Delay section.

2. **Articulation Display** - Shows the currently engaged articulation.

3. **Performance/Sound/Control Tabs** - Dive into each tab to explore different control and sonic options for interacting with Tenor Colossus. Learn more about each tab below under the appropriate section.

Key Layout

The key layout is divided into 3 main areas:

1. **Articulation Keyswitches (Red)** - The bottom of the keyboard is where one selects which articulation is currently active. The once engaged that key will turn **green.**

    • The **first 4 articulations** (**Legato, Staccato, Staccatissimo & Tongued)** will remain active until another keyswitch is engaged.

    • The **remaining articulations** (falls, trills, scoops, etc) will **trigger on one note and then revert back** to whichever of the Legato/Stac/Tongued keyswitches you have engaged.

2. **Playing Range Keys (Blue)** - The middle of the keyboard represents the playing range of the saxophone.
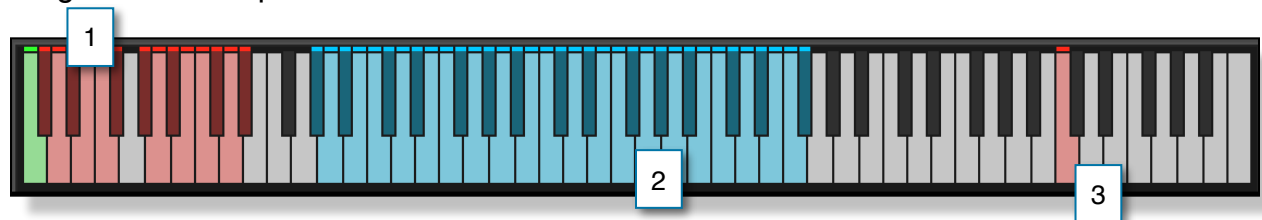
3. **Smart Delay Keyswitch (Red) -** Switching between Smart-Delay and Real-Time playing via a key on your keyboard.

    • This can also be moved to a different note (or removed altogether) on the keyboard on the **Control** tab.

The New Standard Sampling Method

A major hurdle we really wanted to solve with this next series of libraries was simple:

Be able to play normal melodic phrases in a pop/jazz style and have it sound realistic.

It's a simple enough idea, but very difficult to achieve. As we've all heard in the plethora of jazz/pop horn libraries over the decades now, it's very difficult to get right.

Why is this?

The reason it is so difficult can be boiled down to: the **countless tiny variations and changes that happen as the player moves from one note to the next.**

Basically, once the first note is played, as the player approaches the next note, all kinds of things happen to pitch, timbre, volume and idiosyncratic sounds that are different for every instrument (and every individual player!). These changes are different depending on things like the tessitura that the instrument is currently in, the dynamic at which it's played, **where in the phrase the note is**, the **length of the note** and the interval they're coming from as well as the **interval they're about to play**.

the new Standard!

The entire range of the instrument is always sampled thoroughly by developers by **chromatically sampling** the instrument over the entire range. This is nothing new. **Multiple dynamic samples** are recorded and have been for decades now to capture the timbral characteristics that change from the quietest notes to loudest. With the advent of "True Legato" sampling over the last 20 years or so, developers have been recording the incidental **legato transition** sounds between intervals to create more realistic legato and was a huge leap forward in realism and expressiveness in sampling. With these kind of true legato techniques, the i*nterval the note is coming from* has been sampled for years with wonderful results.

The New Standard sampling method continues using these tried-and-true sampling techniques of chromatic sampling, multiple dynamics and legato transitions but we took the process further and **added 3 other criteria** for sampling to allow us to achieve the utmost realism which is paramount to being able to recreate the nuances of jazz/pop phrasing.

The main additions in The New Standard method of sampling are:

> 1. We recorded **different lengths** of notes. 9 different lengths. Players actually articulate and sustain notes **very** differently depending on how long they play them. Moreover, standard sustain samples, where the player performs an isolated long note, are only realistic and useful once the notes get to a certain length. If these standard long sustains are used for these shorter legato notes, the result is a flat, life-less and altogether fake sounding representation.

> 2. We recorded legato **in and out of every note.** So much of what gives each note of a phrase it's unique sound, and why it's so hard to replicate, is the preparation for the next note. Players do so many small changes as the next note is coming. Not only that, but it's mostly involuntary and happens without them thinking (especially as the rhythm gets faster), so asking a player "play an 8th

note" in a sampling won't even close to get you the breadth of possibilities of what that same player might play in any given situation.

- To illustrate it more clearly, for every pitch there is a sample with a note from a whole step to a whole step, and from a whole step to a 3rd, and from a whole step to a 6th. Conversely, there's sample from a 3rd to a whole step, and from a 6th to a whole, etc, etc…
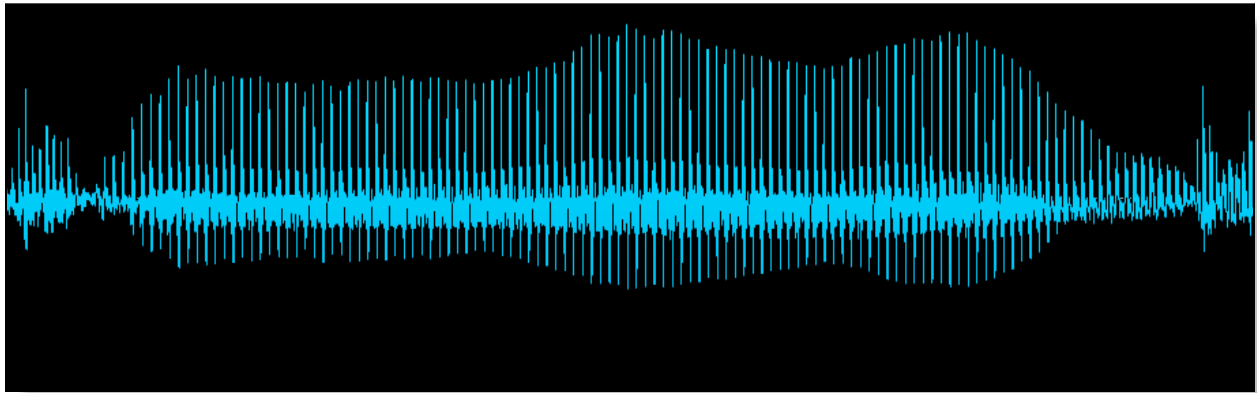
Example of full-length sample with transitions on both the beginning and end of notes. Notice all the interesting, almost random, dynamic changes throughout the body of the note.

3. We recorded different samples for **where they are in the phrase**. To use the 8th note example again: if you had a musician play three 8th notes in a row. Even if they're identical length, pitch, dynamic, they will be performed *totally differently*. And neither of the 3 samples would suffice and sound realistic as a replacement for the other two instances.
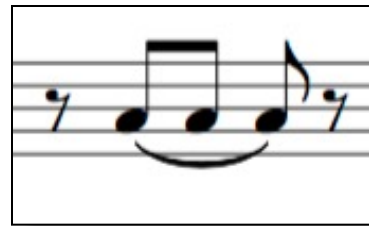
Because of these three new sampling techniques, we had to develop a way to implement these recordings, as it became clear immediately that a standard keyswitching method would not be practical to select between over 2,000 samples. In addition, the nature of these criteria necessitated the need to know *what was coming next*.

- We cannot select the correct note length sample to play without first knowing how long the note will be.

- We cannot select the appropriate legato out transition sample without first knowing what the pitch of the next note will be

- We cannot select the appropriate sample for where in the phrase it is until the next notes are played.

This leads to the Smart Delay solution. Because samplers and DAWs don't allow you to truly *look ahead* to see what notes are coming, we developed a way to just give the sampler a little extra time to process the samples, wait and see what you played next and what context each note is played in to correctly choose the right sample.

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Smart Delay

Our new *Smart Delay* technology works in tandem with our New Standard method of sampling to achieve new levels of detail and realism.

How to use Smart Delay:

- Before engaging Smart Delay, use Real-Time mode to compose your piece and play in your phrases. Add any special articulations you like (falls, trills, glisses, etc). If your phrase is melodic, favor the Legato articulation for any long notes.

- Engage Smart Delay in the interface. A pop-up window will come and explain/remind you to move your midi region back a bar to give the Smart Delay time to analyze the phrases.

- In your DAW, consolidate or merge any non-contiguous midi regions in your saxophone track. Enable 'snap to grid' and move the entire region 4 beats to the left.

- Upon playback, the script will analyze your playing and retrieve the correct sample for each note from a pool of over **2,000** samples.
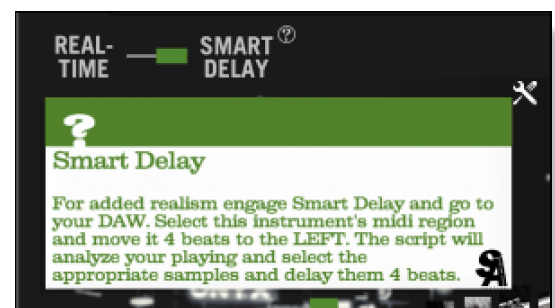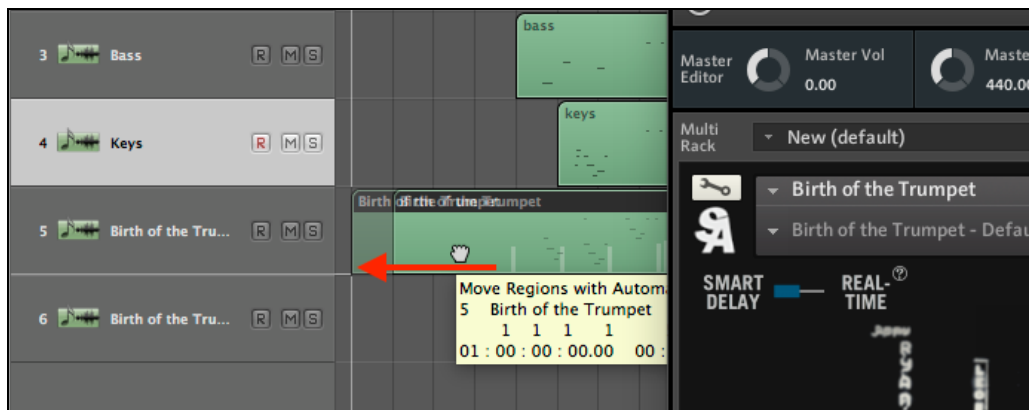
Example showing moving the midi region to the left one bar (4 beats). This screenshot shows Logic, but it's simple a quick in every DAW.

- You can continue to add articulations or edit the midi roll as needed. Just being aware that it will play everything 4 beats later.

FAQ about Smart Delay:

- Why do it this way?

  - As mentioned above in The New Standard explanation, a major hurdle we really wanted to solve with this next series of libraries was to be able to play normal melodic phrases in a pop/jazz style and have it sound real. Once we realized the number of variations in samples that would required, we decided this was the best and easiest way to trigger all those samples.

- Aren't just plain keyswitches better and easier?

  - We've found that users are actually using way fewer keyswitches using the Smart Delay feature. And don't forget, it's pulling from over 2,000 possible samples per note, so having that number of keyswitches is an impossibility. It's basically as simple as playing your phrase in live, engaging Smart Delay and dragging the midi back 4 beats. You'll be surprised how easy it is.

Real-Time Playing Mode

While a lot of attention is undoubtably given to the Smart Delay and it's plethora of advantages and features, it shouldn't be overlooked that the Real-Time playing mode is a very powerful and wonderful sounding instrument in and of itself.

- A more traditional way of interacting with a virtual instrument, users will find it inspiring to play as well as full-featured.

- All the same articulations (falls, trills, glisses, scoops, etc) as Smart Delay mode (with the exception of the many variations of lengths, transitions, etc).

- Multiple dynamic layers that crossfade seamlessly via mod wheel

- Beautiful True legato transitions between connected notes

- Fully controllable vibrato working very similar to the one in Smart Delay mode.

Interface - Performance Tab

The Performance tab features the most essential controls for how you want to interact with the instrument. The controls are:

- Vibrato - On/Off

- Dynamic Control - Switches between mod wheel controlled or key velocity

- Velocity Staccato Trigger - on the hardest velocities staccato samples will be played. You can edit the velocity break point on the Control tab.

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Interface - Sound Tab
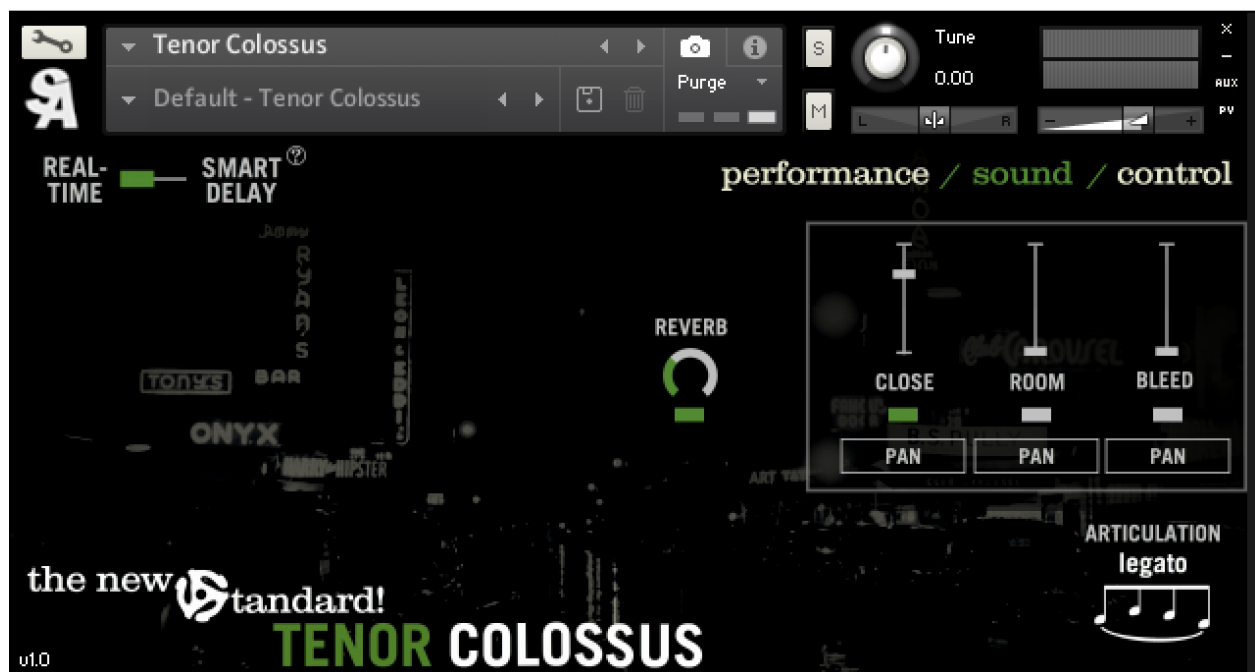
The controls for the Sound tab are:

- Mixer - Volume faders for the different mic positions

  - Close and Room faders control these different sample sets

  - Bleed mic controls a custom bleed mic convolution we recorded. This can be a very useful effect to simulate other instruments recorded in the same room.

- Pans - pan each mic position or the bleed

  - *Tip: Try panning the Bleed hard to the left or right and mixing it in subtly. It really helps put the instrument in the space and create the sound of a live studio performance.*

- Purge buttons - On/off buttons beneath the name of each mic position. In the case of the close and room mics, it loads or unloads those samples from the memory (blue being loaded, gray being unloaded). The button beneath the bleed mic, just turns that effect on or off (blue being on).

- Reverb - On/Off

- Reverb Amount - controls the return of the reverb

Interface - Control Tab
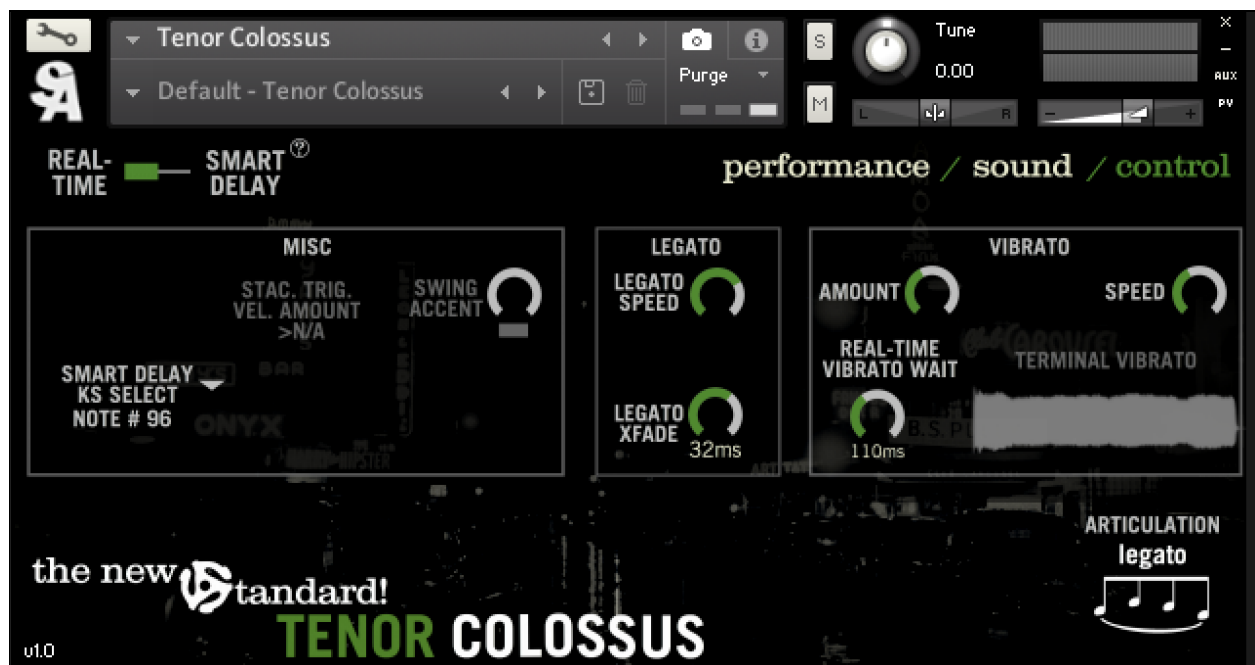
The last tab labelled Control is for the deeper controls of the instrument. They are set to a good starting places by default. But you can customize performance and sound parameters here. The controls for the Control tab differ slightly depending on whether Smart Delay or Real-time playing is engaged.

The global controls and ones specific to **Real-Time** playing are:

- Staccato Trigger Velocity Amount - Sets the break point velocity. In other words, if Vel. Stac. Trigger is enabled (from the Performance tab) above this velocity the notes will be played staccato.

- Legato Xfade - Adjusts the length of the crossfade between two legato notes. Tip: Command-click this parameter for the most seamless setting. But occasionally, in very fast playing, you might increase this to make the crossfades happen faster.

- Vibrato Amount - Sets the depth of the vibrato. Every time a new note is played the amount is varied slightly in the range of set amount.

- Vibrato Speed - Sets the rate of the vibrato. Similar to the Vibrato Amount, on each new note the speed is varied slightly near the range of the set speed.

- Legato Speed - (Real-Time playing only) - Sets the length of the legato transition inserted between to connected notes.

- Real-Time Vibrato Wait - (Real-Time playing only) - Sets the wait time (in milliseconds) that the instruments before the vibrato begins.

The controls specific to **Smart Delay** mode are:

• Swing Accent - Imitates the way players emphasize/de-emphasize certain notes in a legato phrase. For example, accenting notes that are leaped up to and 'ghosting' notes that leaped down to.

• Terminal Vibrato - Imitating the way players tend to add a bit of vibrato as they begin to release the note. Drag the slider to how far from the END of the note the vibrato will begin.

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Reconstructed Vibrato

After countless sessions with players and analyzing the different ways in which they create vibrato, and many hours of trial and error, we have developed a scripted vibrato that we think is practically indiscernible from the real thing. There is a lot going on under the hood here that is modeling the timbral characteristics of a real player's vibrato while still giving you total control over it.

• In both Real-Time and Smart Delay modes you have control over the depth and speed of the vibrato by using the corresponding controls on the **Control** tab.

• **While in Smart Delay**, we have implemented what many players call "Terminal Vibrato." And after hours of studying the way players really play, we found this to be the most realistic option for choosing when the vibrato begins.

 • Simply drag the slider left or right to choose how far from the end of the note the vibrato starts.
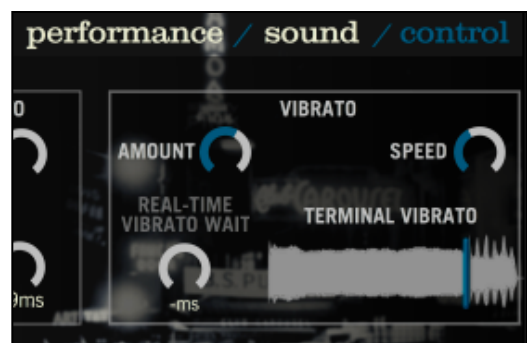
    • _Tip: if you want a more heavy fast vibrato, try moving the slider almost all the way to the right. So you just hear a bit of that vibrato come in at the tail end of the note. You'll recognize that sound instantly as a trademark of many of the great saxophoneers throughout history._

- Tip: For longer and slower vibratos, move the slider closer to the start of the note, but be sure to turn the Amount down to a lower setting for that more subtle, yet dramatic sound.

- **In Real-Time mode**, a more traditional millisecond wait knob is available to choose how long after the start of the note should the vibrato begin.
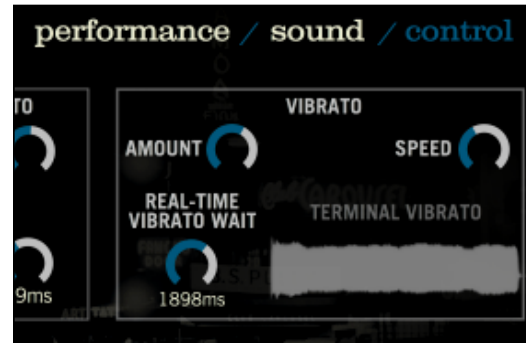
Troubleshooting/FAQ

- **Sometimes the articulation image shows what I'm playing and sometimes it doesn't**.

  - The articulation display and Kontakt keyboard display has 3 possible ways of functioning:

    1. Real-time mode - keys and display images will display in real-time as you play

    2. Smart-Delay in standalone or with DAW transport NOT running - keys and display images will display in real-time as you play

    3. Smart-Delay with DAW transport running - keys and display images will be delayed and will be in sync with the audio playback.

- **Weird mod-wheel or dynamics jumping/glitching**.

  - Very occasionally, if the Smart-Delay button is turned off and on many (many, many!!!) times in a row in conjunction with lots of extreme mod-wheel changes, the dynamic crescendos get "stuck" and will cause some weird behavior.

  - This is very rare and, depending on your personal workflow, you'll probably never encounter it. But if you do, there is a **very simple fix**. **Reset** Kontakt with the **exclamation point button** at the top of Kontakt.
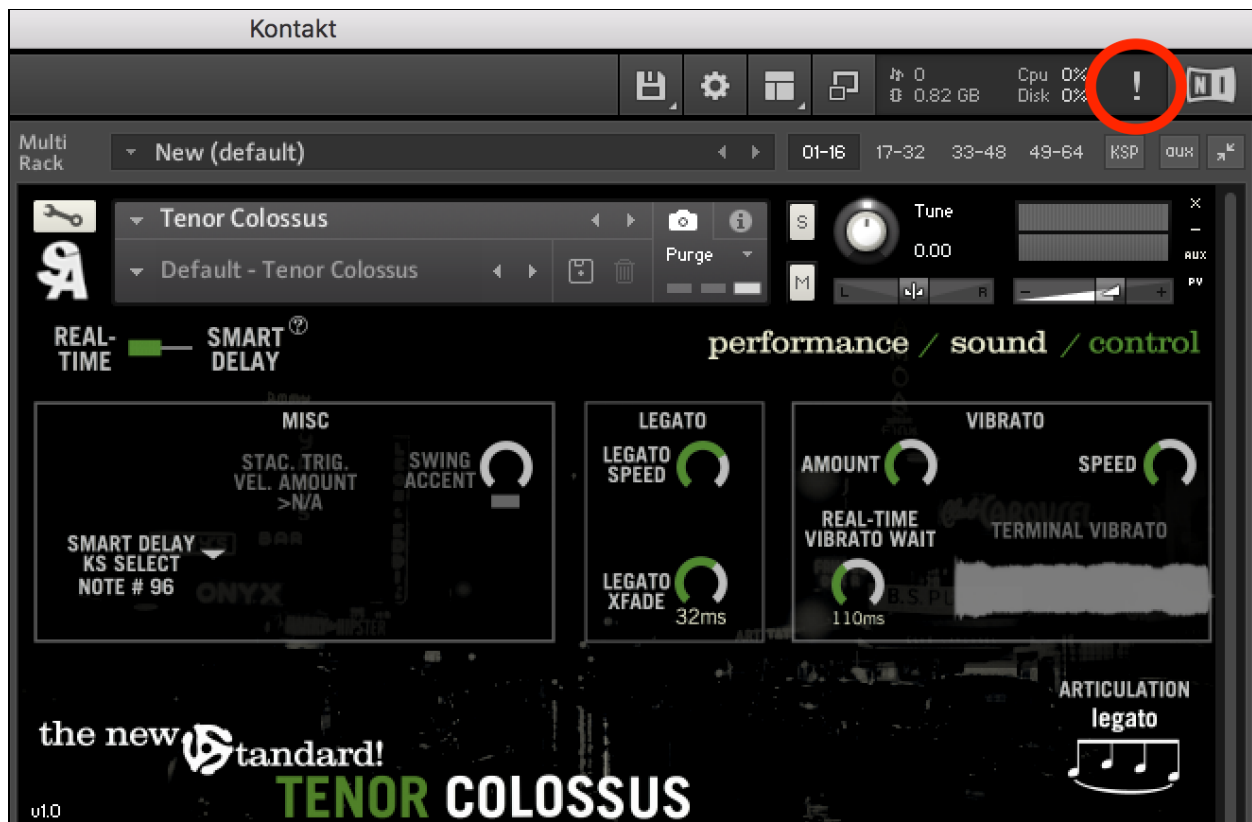
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-Thank You