



Stradivari Cello

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1. Disclaimer

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Document authored by Antti Oikarinen

Software version: 1.0 (09/2020)

2. Welcome to STRADIVARI CELLO

STRADIVARI CELLO is part of Native Instruments' Cremona Quartet series. Although best known for his violin making, Antonio Stradivari also made other stringed instruments. STRADIVARI CELLO features recordings of the 'Stauffer' cello, built by Stradivari in 1700. Listed as an Italian national treasure, the cello is famous for its luscious, deep tones that add weight to the sound of the string quartet. Until now, only a select few have been granted the right to play this precious instrument. The cello itself is guarded by armed security, as it sits on display in the Museo del Violino in the birthplace of Antonio Stradivari—Cremona, Italy.

During the recording process for this virtual instrument, the streets of Cremona ground to a halt as the council closed roads, car parks and urged the people of the town to remain as quiet as possible. Meanwhile, inside the Auditorium Giovanni Arvedi, designed by pioneer acoustician Yasuhisa Toyota, Hamburg's e-instruments captured every single note of the cello using 32 carefully selected microphones placed throughout the hall to provide this digital recreation of a historic masterpiece.

The instrument provides 20 different, professionally played articulations, each with up to four legato transitions. In addition, the innovative, Performance-Captured Vibrato models the natural vibrato technique of a professional player and the Stereo Phase-Aligned Dynamic Crossfades eliminate phasing between dynamic transitions. These features combine to make STRADIVARI CELLO one of the most realistic, true-sounding solo cello recreations. This document provides information about the library and a description of all of its functions.

We hope that you enjoy using STRADIVARI CELLO!

3. Document Conventions

This document uses particular formatting to point out special facts and to warn you of potential issues. The icons introducing the following notes let you see what kind of information can be expected:



The speech bubble icon indicates a useful tip that may help you to solve a task more efficiently.



The exclamation mark icon highlights important information that is essential for the given context.



The warning icon warns you of serious issues and potential risks that require your full attention.

Furthermore, the following formatting is used:

- Paths to locations on your hard disk or other storage devices are printed in *italics*.
- Important names and concepts are printed in **bold**.
- Square brackets are used to reference keys on a computer's keyboard, e.g., Press [Shift] + [Enter].

4. Installation and Setup

Before you can make music with STRADIVARI CELLO you must install and setup the necessary software. Follow these instructions to get started:

Native Access

Native Access is where you will install the software for STRADIVARI CELLO. If you are new to Native Instruments, you will first have to create your Native ID.

1. Download and install Native Access [here](#).
 2. Login to Native Access using your Native ID.
 3. Click the **Not installed** tab.
 4. Click **INSTALL** for the following products:
 - KONTAKT or KONTAKT PLAYER
 - STRADIVARI CELLO
- The software is installed automatically.

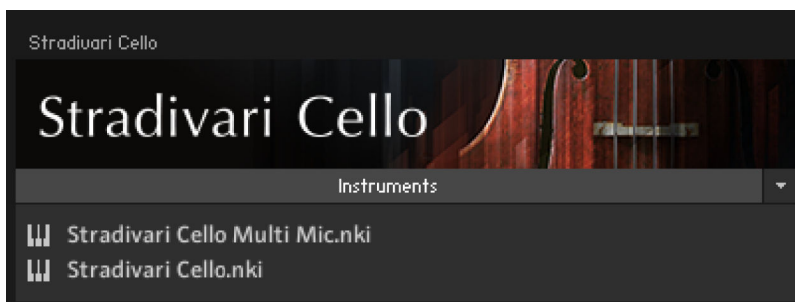
 If the software is already installed, click the **Available updates** tab and check for new updates before proceeding.

 To learn more about Native Access, visit our support page [here](#).

STRADIVARI CELLO via KONTAKT

STRADIVARI CELLO is not an independent plug-in, so once installed, you first need to open an instance of KONTAKT or KONTAKT PLAYER to use it:

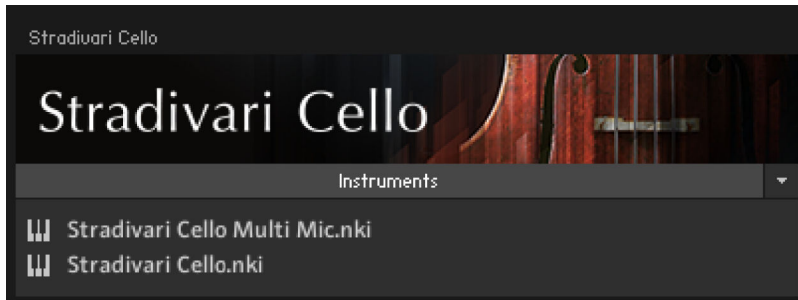
1. Open KONTAKT as a plug-in in your host software (DAW), or as stand-alone application.
2. Locate STRADIVARI CELLO in the Browser, on the left side of the user interface.
3. Click **Instruments** to open the product's content.
4. Double-click the **Stradivari Cello.nki** file to load the instrument.



→  If you are new to KONTAKT and want more information, visit [KONTAKT PLAYER](#) and [KONTAKT](#).

5. About STRADIVARI CELLO

Once installed, you will find STRADIVARI CELLO comes with two NKI instruments. Click the **Instruments** banner to show the STRADIVARI CELLO NKIs. Load the desired NKI on your KONTAKT or KONTAKT PLAYER browser by double-clicking the NKI.



Multi-microphone and standard stereo version of STRADIVARI CELLO as seen in KONTAKT instrument browser.

- STRADIVARI CELLO Multi Mic: Use the multi-microphone version to control and fine-tune the balance between different microphone positions and mixes, as well as the Room Noise of the recording space. For more information on the Mixer page and Room Noise controls, see [Mixer](#).
- STRADIVARI CELLO: The standard stereo NKI includes only a stereo mix of the cello. The stereo version is ideal for saving computer resources and sketching ideas quickly without the need to adjust the balance between microphone mixes.

! The only visible difference between the multi-microphone and stereo NKI interfaces is the mixer tool, which is not available in the stereo version.

5.1. Key Features

Chromatic Sampling

Unlike most other virtual string instruments which often rely on samples of only every other note of the instrument, STRADIVARI CELLO features chromatic sampling, meaning that every single note of the instrument is a true recording. All playing styles and articulations have been sampled chromatically, and therefore are playable with unparalleled realism without the need to stretch notes in between.

Phase-aligned Stereo Samples

STRADIVARI CELLO's phase-aligned stereo sampling technology allows you to produce natural, vivid cello performances. Seamless, phase-aligned velocity crossfades on long articulations eliminate phasing when transitioning between dynamic layers.

Performance-Captured Vibrato

One of STRADIVARI CELLO's highlights are the real-life vibrato performances, performed by the best virtuosi. The captured performances are re-applied into the sampled content, allowing you to produce highly authentic and dynamic vibrato performances. In many other virtual string instruments the vibrato has been included within the sample, and therefore it can only be turned on or off. STRADIVARI CELLO allows you to control vibrato depth and speed dynamically, allowing for dynamic and realistic vibrato performances.

A Comprehensive Range of Articulations

Utilize 20 different articulations that are divided into Long, Short, Expressive, Dynamic, Special and Adaptive articulations. In addition, three different legato transitions can be found within the articulation controls. The Virtuoso articulation intelligently combines multiple articulations depending on the velocity, note and pitch bend information you generate through your MIDI controller performance.

Intelligent Fingerboard Positioning

Dial in the perfect timbre for long articulations. Choose the Low String fingerboard position for a soft, mellow tone or the High String position for a brighter, more vibrant sound. Or opt for the Smart position, which intelligently selects the closest fingerboard position to the other notes played, as a real cellist would.

Multiple Microphones and Blendable Microphone Positions

A multi-microphone version of the instrument provides mix faders that let you adjust three separate mixdowns of the 32 microphones. Mix close, mid, and far mic positions. An included second version of STRADIVARI CELLO provides a stereo-only mix that's lighter on your CPU and RAM for a speedier workflow and extra focus when composing.

The Characteristics of a Perfect Room

STRADIVARI CELLO was recorded in Auditorium Giovanni Arvedi, in Cremona, Italy. This special performance space is part of Italy's violin museum. The hall has been specifically designed with these precious instruments in mind. Blend in the noise floor captured in the Auditorium to place your Stradivari in the perfect acoustic space.

6. Main Page

The following features and controls can be accessed through the Main page:



Main page of the STRADIVARI CELLO Multi Mic NKL.

1. **Snapshots:** Snapshots offer a quick way of browsing for new sounds and mixer presets, and saving your own custom configurations. For more information, see [Snapshots](#).
2. **Mixer:** Opens the Mixer, where you can access controls to change the balance between different microphone blends, and control the amount of **Room Noise**. Note that the Mixer controls are only available in the multi-microphone version of STRADIVARI CELLO, and therefore the Mixer icon is not visible in the Standard NKL. For more information, see [Mixer](#).
3. **Performance Controls:** Adjusts the dynamics of the performance with the **Dynamics** and **Vibrato** controls. Click the icon in the top left corner to open the Performance page, which provides further controls over different performance elements. For more information, see [Performance](#).
4. **Articulation Slots:** Select from 20 different articulation variations to load into the eight Articulation slots. Click the icon in the top right of the selected articulation slot to open the Articulation page. For more information on articulations, see the section [Articulations](#).

5. **Position Control:** Control the timbre of your performance by choosing notes to be played in High String or Low String positions, or opt for the Smart option to let STRADIVARI CELLO choose the string positioning intelligently. Click the icon in the top right corner to open the Position page. For more information, see [Position](#).
6. **NKS:** Indicates the active keyswitch mapping in NKS format. For more information, see [NKS Integration](#), [Host Automation](#), [MIDI CC Mapping](#).

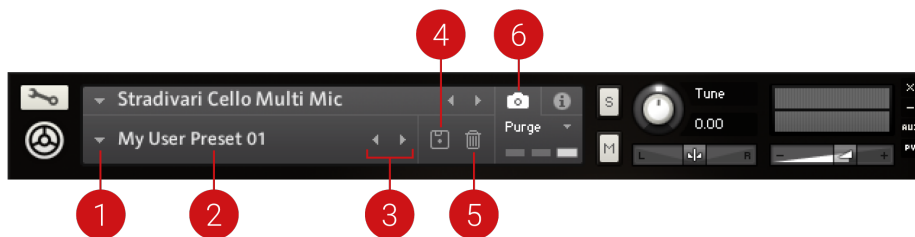
7. Snapshots

Snapshots offer a quick way to access different sound and mixer presets, as well as saving your own configurations for convenient access. Examples of Snapshots included in STRADIVARI CELLO are Quartet Seating, which places the cello in a realistic string quartet position, and Orchestral Seating, which has been designed with a broader orchestral setting in mind.

When a User Snapshot is saved, features such as articulations, mixer settings and customized keyswitches are stored within the preset. Using Snapshots, you can create your own preset sounds, save them in the .nksn file format and use them in other projects, across computers or even share them with other users.

7.1. Overview of Snapshots

Snapshots offer a quick and convenient way of browsing for new sounds and saving custom presets in STRADIVARI CELLO. Key features relating to Snapshots include:



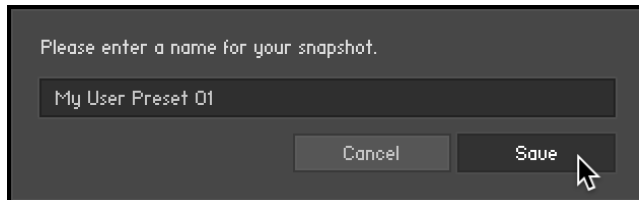
1. **Load Snapshot:** Opens the Snapshot menu where you can load a Snapshot from the **User** library. For more information, see [Loading a Snapshot](#).
2. **Snapshot Name:** Displays the name of the currently selected Snapshot.
3. **Snapshot Previous/Next** (<> icons): Allows you to quickly browse and load Snapshots. Pressing an arrow icon will load the previous or next Snapshot in the selected category. If no Snapshot is active, the first Snapshot on the list will be loaded. For more information, see [Loading a Snapshot](#).
4. **Save Snapshot** (floppy disk icon): Allows you to save changes made to a sound. When a User Snapshot is saved, the macros settings, parameter controls, and sequence are stored within it and can be accessed at any time via the **User** library. For more information, see [Saving a User Snapshot](#).
5. **Delete Snapshot** (bin icon): Deletes the currently selected Snapshot from the **User** library. You can only delete **User** Snapshots and not **Factory** Snapshots. For more information, see [Deleting a User Snapshot](#).
6. **Snapshot View** (camera icon): Provides access to the Snapshot features described above; saving, loading, browsing, and deleting. When **Snapshot View** is selected, configuration settings and features relating to the **Info View** are replaced in the display.

7.2. Saving a User Snapshot

Snapshots can be saved at any time while you are working on them. When a Snapshot is saved, parameters and features such as articulation slots, mixer settings and customized keyswitches are saved within the preset.

To save a Snapshot:

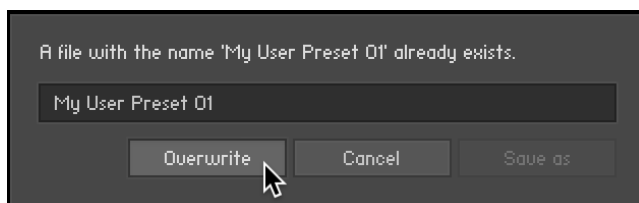
1. Click the Snapshot View button (camera icon) to open Snapshot view.
2. Click the Save button (floppy disk icon).
3. Enter a name for your new Snapshot in the **Save** dialog box.
4. Click **Save** to finish the process and close the dialog box.



→ Your Snapshot .nksn file is saved to the User Snapshot Library. It appears in the **User** Snapshot list.

To overwrite a Snapshot:

1. Click the Snapshot View button (camera icon) to open Snapshot view.
2. Click the Save button (floppy disk icon).
3. Click **Overwrite** to confirm the process.



→ Your Snapshot .nksn file is saved to the User Snapshot Library, in replace of the old file.

7.3. Loading a Snapshot

Snapshots are loaded from the drop-down menu in the top header of the instrument. You can also use the arrows to the left of the floppy disk icon to load the next or previous preset.

To load the previous or next Snapshot:

1. Click the Snapshot View (camera icon) to open Snapshot view.
 2. Click the arrow icons (< >) in the Snapshot header to browse through the Snapshots list.
- The previous or next Snapshot will load immediately each time an arrow icon is clicked.

To load a Snapshot from the library:

1. Click the Snapshot View (camera icon) to open Snapshot view.
2. Click the arrow next to the Snapshot name field.
3. Select the **User** category to load one of your own snapshots.
4. Click a Snapshot to load it.

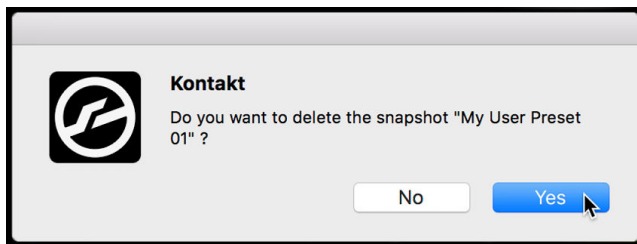
Note that the **User** category will not appear until you have first saved a Snapshot.

7.4. Deleting a User Snapshot

Snapshots can be deleted using the bin icon in the instrument header. To delete a User Snapshot:

To delete a User Snapshot:

1. Click the Snapshot view (camera icon) to open Snapshot view.
2. Load the User Snapshot you wish to delete.
3. Click the Delete button (bin icon).
4. Confirm deletion of the Snapshot by selecting **Yes** in the dialog box.



8. Articulation

Just like a true virtuoso is able to make their instrument speak in different colors and tones, STRADIVARI CELLO includes a comprehensive selection of articulations allowing for expressive and realistic cello performances. Articulations shape the sound of the instrument through variations in transients, length of the notes, bow pressure and position as well as in hand, finger and wrist movements. STRADIVARI CELLO provides 20 articulation variations that can be loaded into eight slots. For more details on articulation types and their respective controls, see [Articulation Types](#).

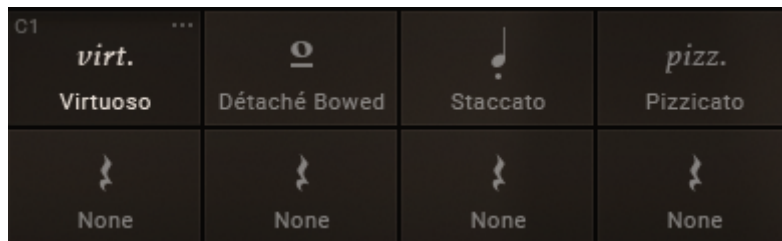


The Articulation page.

- 1. Keyswitch:** Articulations can be switched using keyswitches that are assigned to MIDI notes of your choosing. For more information, see [Keyswitch](#).
- 2. Articulation Types:** 20 different articulations are grouped into six categories. For more information, see [Articulation Types](#).
- 3. Con Sordino:** Play the instrument in mute style with a damper. For more information, see [Con Sordino](#).
- 4. Open (dots icon):** Opens the Articulation page for the selected articulation slot.
- 5. Legato Modes:** Select from a number of different legato modes, which define the transition from one note to the next when playing legato. For more information, see [Legato Modes](#).
- 6. Bow Change:** Control and force bow changes when playing certain articulations. For more information, see [Bow Change](#).
- 7. Close (x icon):** Closes the Articulation page and returns to the Main page.

8.1. Articulation Slots

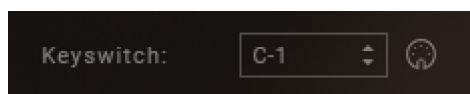
STRADIVARI CELLO offers eight articulation slots, which can be found at the bottom of the Main page. Select an articulation by clicking the corresponding articulation slot. Open the Articulation page by clicking the symbol in the top right corner of the slot, and load an articulation into the slot by selecting from the 20 available articulation types.



Articulation slots at the bottom of the Main page.

8.2. Keyswitch

The articulations can be switched using keyswitches that are assigned to MIDI notes of your choosing. The active keyswitch is visible in the top-left corner of each articulation slot in the Main page.

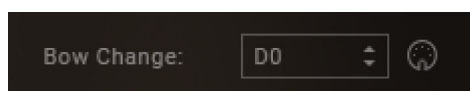


The Articulation keyswitch and MIDI learn button.

- **Keyswitch Selector:** Selects the preferred keyswitch for the selected articulation. Drag the selector up or down to select the the keyswitch note.
- **MIDI Learn:** Activates the MIDI Learn button. Use this to alternatively set the keyswitch by pressing a key on your MIDI keyboard or controller

8.3. Bow Change

STRADIVARI CELLO allows you to control and force bow changes when playing certain articulations. The active keyswitch for **Bow Change** is indicated with an illuminated purple key in the keyboard section, located at the bottom of the KONTAKT or KONTAKT PLAYER window. Not all articulations allow for bow changes, see [Legato and Bow Change Controls](#) for a list of articulations that offer this feature.



The Bow Change keyswitch and MIDI learn button.

- **Keyswitch Selector:** Selects the keyswitch for controlling bow changes. Drag the selector up or down to select the the keyswitch note.
- **MIDI Learn:** Activates the MIDI Learn button. Use this to alternatively set the keyswitch by pressing a key on your MIDI keyboard or controller.



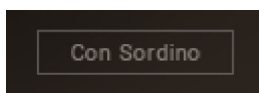
The active keyswitch for Bow Change is indicated with an illuminated purple key.



If you hold a note down long enough when using a longer articulation such as Sustain or Legato, STRADIVARI CELLO performs the bow change automatically in a natural-sounding way.

8.4. Con Sordino

A sordino is a damper used to mute or control the volume level of a string instrument performance. String instrument sordinos were widely popularized by romantic composers who looked for new timbres and ways to perform in more conservative volume levels. STRADIVARI CELLO allows you to play the instrument in Con Sordino (italian for 'with mute') style, which produces a completely different timbre. Use the Con Sordino switch to activate the damper.

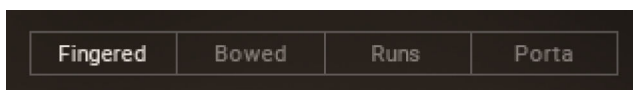


The Con Sordino button.

- **Con Sordino:** Switches the damper on or off. When **Con Sordino** is active, the button is highlighted and the damper is in effect.

8.5. Legato Modes

Legato is a musical term used to describe notes that are played smoothly and connected without silence in between. Long articulation styles offer the choice between a number of different legato modes, which define the transition from one note to the next when playing legato. Click the respective legato type to select the desired legato mode.



The Legato Mode selector with Legato types.

Depending on the articulation, up to five legato modes are available:

- **Fingered:** Changes the note without changing the direction of the bow, allowing you to play multiple notes without rebowing.
- **Bowed:** The bow direction is changed simultaneously with the note change.
- **Portamento:** The note changes are performed with a glide, simulating how a cellist would slide a left-hand finger on the fingerboard to move between two notes.
- **Rebow:** Rewow changes the note with a new bow stroke, but without audible finger movement of the left hand.
- **Runs:** Legato mode designed for playing fast legato runs.

- ! Legato mode is not available for all articulation types. For more information, see [Legato and Bow Change Controls](#).

9. Articulation Types

Articulations are grouped into six different categories; **Long**, **Short**, **Expressive**, **Dynamic**, **Special** and **Adaptive**. The following chapter describes the characteristics of each articulation. The controls vary depending on the type of articulation, and the available controls are also described below.

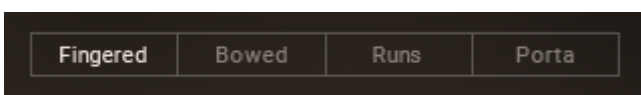


The six articulation categories and their respective articulation types.

9.1. Long Articulations

Long articulations include **Sustain**, **Marcato** and **Détaché**. Each of these articulations offers a range of legato modes. Choose the desired mode using the selector.

- **Sustain**: Play long, sustained notes.
- **Marcato**: Play accented notes. Notes played in marcato are played with a stronger attack compared to sustained note.
- **Détaché**: Each note is played with a separate bow stroke. Faster bow strokes make détaché useful when playing faster passages. The bow changes are smooth and not accented



The Legato Mode selector with the Legato switches.



Double stop is a string instrument technique of playing two notes simultaneously. Articulations which are usually monophonic, such as **Sustain** and **Marcato**, allow you to play double stops. To achieve this, simply press or trigger two notes precisely at the same time.

9.2. Short Articulations

Short articulations include **Sautillé Single**, **Spiccatissimo**, **Spiccato**, **Staccato**, and **Pizzicato**.

- **Sautillé Single**: Alternating bow strokes. The wooden part of the bow jumps or hops up on each note change. Compared to the similar spiccato articulation where the whole hair of the bow leaves the string, sautillé allows you to play faster passages as the hair of the bow stays on the string.
- **Spiccatissimo**: A shorter and more accented version of the spiccato articulation.
- **Spiccato**: Alternating bow strokes. The hair of the bow bounces off the string on each note change.
- **Staccato**: A short, non-bouncing bow stroke, where the bow does not leave the string.
- **Pizzicato**: The string is picked with the index finger of the bowing hand. Pizzicato creates a very different, almost percussive sound compared to bowing.

! The loudness and the dynamics of the short articulations can be controlled via playing MIDI notes at different velocities through your DAW or a MIDI controller.

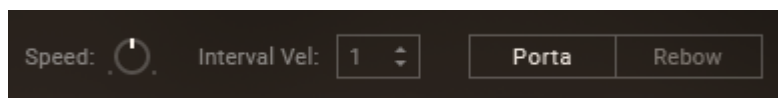
9.3. Expressive

Expressive articulations include **Tremolo**, **Trill**, **Ricochet**, and **Sautillé**. Each articulation has varying controls that relate to its performance and behavior:

- **Tremolo**: The note is played repeatedly with no specific accent with fast alternating bow strokes.

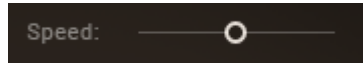


- **Speed**: Adjusts the change the speed of the tremolo strokes.
- **Legato Selector**: Switches between a Bowed legato and Rebow transitions.
- **Trill**: Two notes are alternated in quick succession either on a half note or whole note range.

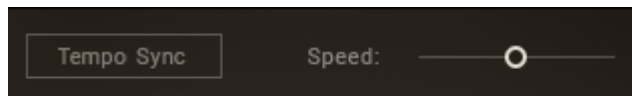


- **Speed**: Adjusts the speed in which the notes are alternating.
- **Interval Vel**: Sets the threshold value where the trill range changes from half note to whole note. The value implicates the velocity of the MIDI notes played on the DAW or with a MIDI controller. For example, if the value is set at 64, MIDI notes below this velocity will trigger a half note trill. MIDI notes played at velocity higher than 64 will trigger a whole note trill.
- **Legato Selector**: Switches between Portamento and Rebow legato transitions.

- **Ricochet:** Several notes are played with the same bow direction, while the bow is bouncing on the string.



- **Speed:** Adjusts the speed of the ricochet bounces.
- **Sautillé:** Sautillé notes played repeatedly.



- **Tempo Sync:** Switches sync on or off. When on, click the **x 1** switch to play the notes in sync with the tempo of your DAW. When off, use the **Speed** slider to control the speed of the articulation continuously.
- **Speed:** Adjusts the speed of the articulation continuously, when Tempo Sync is switched off.



Use the modulation wheel or MIDI CC1 to control the dynamics of the expressive articulations with your MIDI controller or DAW.

9.4. Dynamic

Dynamic articulations include **Crescendo**, **Diminuendo Short**, and **Diminuendo Long**. Each variation provides a **Speed** control, that can be used to adjust the speed of the loudness increase or decrease.

- **Crescendo:** The loudness of the bowed note increases gradually. Use the **Speed** control to adjust the speed of the loudness increase.
- **Diminuendo Short:** The loudness of the bowed note decreases gradually. Use the **Speed** control to adjust the speed of the loudness decrease.
- **Diminuendo Long:** The loudness of the bowed note decreases gradually. The loudness decreases slower compared to the shorter diminuendo articulation. Use the **Speed** control to adjust the speed of the loudness decrease.

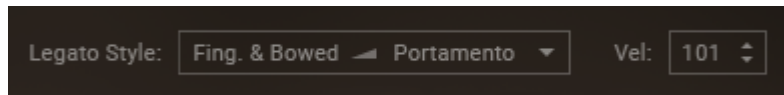
9.5. Special

Special articulations include **Sul Pont**, **Sul Tasto**, **Harmonics**, and **Col Legno**. They recreate techniques that produce a range of interesting timbral results. Some of these articulations offer bow change controls.

- **Sul Pont:** Notes are bowed close to the bridge, resulting in a different timbre.
- **Sul Tasto:** Notes are bowed near or over the fingerboard, resulting in a very soft, flute-like timbre.
- **Harmonics:** Notes are played by placing fingers gently on the strings, resulting in harmonic overtones.
- **Col Legno:** Notes are played by striking the string with the wooden part of the bow as opposed to the hair of the bow, resulting in percussive notes.

9.6. Adaptive

- **Virtuoso:** Virtuoso is a performance mode that intelligently combines several articulations. Virtuoso is a great way to perform realistic cello performances on a MIDI keyboard or sketch ideas quickly and efficiently without programming keyswitches. Here are some of the features that make Virtuoso a unique performance tool.



- **Legato Style:** By default, when playing legato notes in lower velocities, the note transitions will be played in fingered or bowed legato styles. Legato notes with higher velocities will trigger portamento transitions. Use the **Legato Style** selector to change the order of aforementioned styles according to the velocity, so that lower velocities will trigger portamento transitions and higher velocities result in fingered or bowed legato transitions.
- **Velocity:** Set the threshold value for the velocity where the legato style is changed. Notes with low velocities (104 and under) will trigger notes played with sustained articulation, while notes with higher velocities (105 and higher) will result in notes played in marcato style.

■ In Virtuoso mode, the spiccatissimo and staccato articulations are controlled via mod wheel instead of keyboard velocity. Use the pitch bend control on your MIDI keyboard or DAW to adjust the playing style between spiccatissimo and staccato articulations. Turn the control up to play notes in spiccatissimo and turn the control down to play notes in staccato.

9.7. Legato and Bow Change Controls

Category	Articulation	Fingered Legato	Bowed Legato	Portamento	Rebow	Runs	Bow Change
Long	Sustain	x	x	x		x	x
	Marcato	x	x	x		x	x
	Detaché		x		x		
Short	Sautillé Single						
	Spiccatissimo						
	Spiccato						
	Staccato						
	Pizzicato						
Expressive	Tremolo		x		x		
	Trill			x	x		
	Ricochet						
	Sautillé						
Dynamic	Crescendo						
	Diminuendo Short						

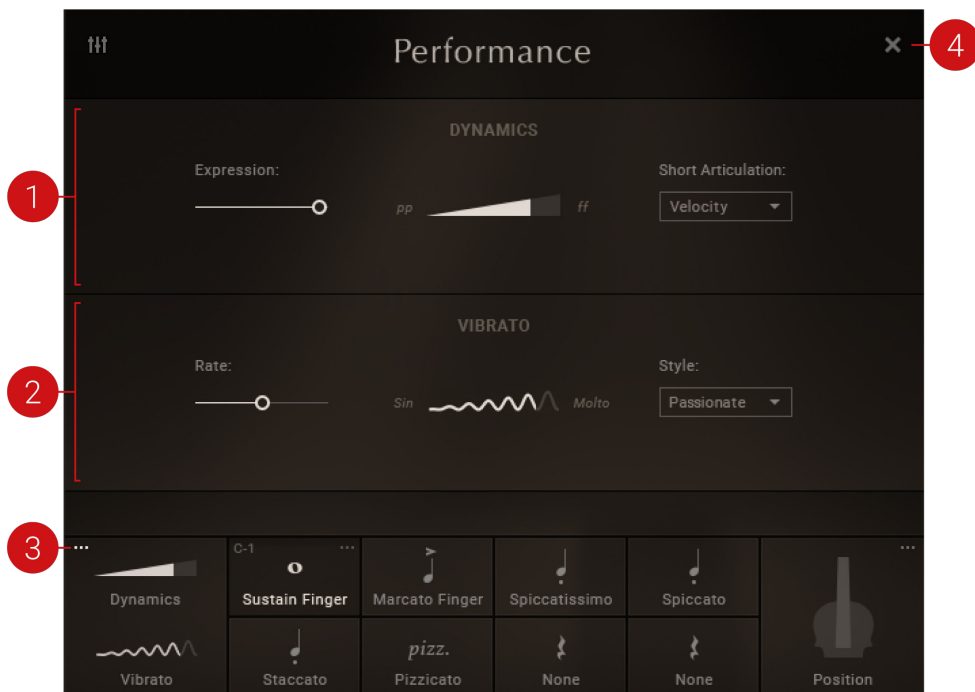
Category	Articulation	Fingered Legato	Bowed Legato	Portamento	Rebow	Runs	Bow Change
	Diminuendo Long						
Special	Sul Pont						x
	Sul Tasto						x
	Harmonics						x
	Col Legno						
Adaptive	Virtuoso	x	x	x			x

- | Detaché articulation has no automatic bow change, so notes end when they are played long enough. However, you can change the bow direction manually with the **Bow Change** feature.

10. Performance

STRADIVARI CELLO's state-of-the-art dynamic performance feature and stereo phase-aligned samples allow for seamless and natural-sounding transitions and crossfading between notes, dynamic layers and velocities.

The Performance page contains the following settings and controls:

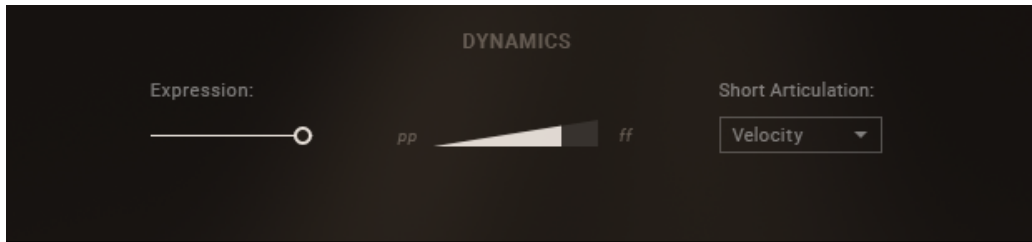


The Performance controls.

1. **DYNAMICS:** Provides a range of controls relating to the Dynamics and Expression of the instrument. For more information, see [Dynamics](#).
2. **VIBRATO:** Provides a range of controls relating to Vibrato. For more information, see [Vibrato](#).
3. **Open** (dots icon): Opens the Performance page.
4. **Close** (x icon): Closes the Performance page and returns to the Main page.

10.1. Dynamics

In addition to various articulations, the emotion and expressiveness of a cello performance can be changed by playing the instrument softly, loudly or anywhere in between, within the volume spectrum. The Dynamics controls allow you to control the volume and dynamics of the cello performance seamlessly and realistically.

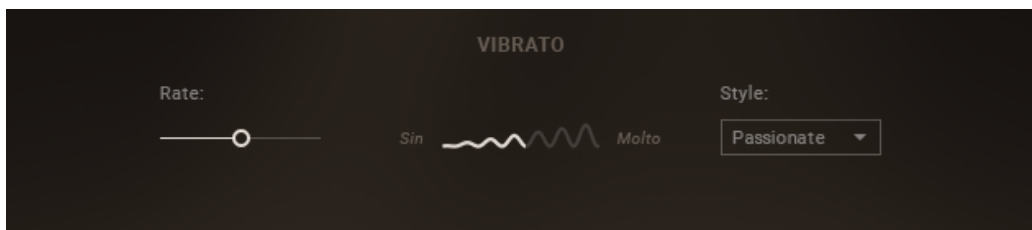


The Dynamics controls

- **Expression:** Adjusts control the volume of the performance. Use MIDI CC11 to control the expression value via your DAW.
- **Dynamics:** Controls the volume and the dynamics of the performance. To control the dynamic value via your DAW, use MIDI CC1. The **Dynamics** slider can also be accessed from the Main page.
- **Short Articulations:** Opens a drop-down menu to assign the short note dynamics either to keyboard velocity or MIDI controller. To change this value via your DAW, use MIDI CC1.

10.2. Vibrato

Vibrato is one of the most recognized ways to inject emotion into a cello performance. STRADIVARI CELLO features performance captured vibrato performances, which are re-applied into the non-vibrato samples. STRADIVARI CELLO lets you adjust the speed of the vibrato seamlessly and in real time.



The Vibrato controls.

- **Rate:** Adjusts the rate of the vibrato. Use MIDI CC15 to control the vibrato rate with your DAW.
- **Vibrato:** Controls the depth and intensity of the vibrato. Use MIDI CC14 to control the depth of the vibrato with your DAW. The **Vibrato** slider is also accesible from the Main page.
- **Style:** Opens a drop-down menu with options for vibrato presets. The available vibrato styles are **Passionate**, **Intensity**, **Wide**, **Evolving**, and **Narrow**. To change the vibrato style via your DAW, use MIDI CC20.

11. Position

As STRADIVARI CELLO's samples have been captured chromatically without re-pitched samples, the resulting fingering is as close to real-life as possible. You can choose from three different intelligent fingering preferences and find the most suitable timbre for your performance.

The Position page contains the following settings and controls:

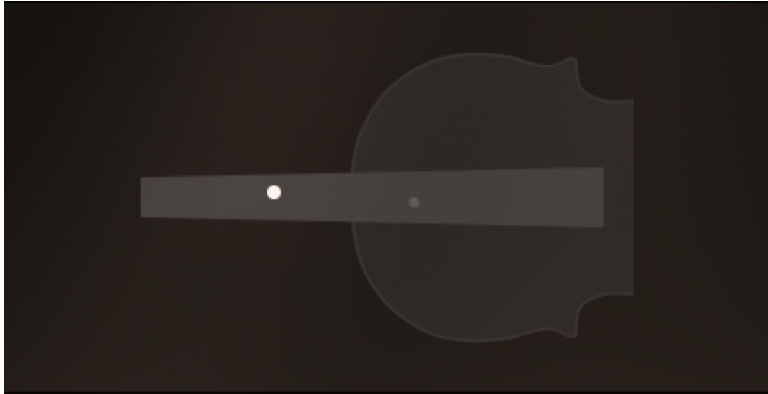


The Position page.

1. **Preference:** Selects the Position Preference. Use MIDI CC21 to change the position preference via your DAW controls. The following options are available:
 - **High String:** Fingering on higher strings is preferred where possible. Playing passages on higher strings result in brighter and metallic timbre.
 - **Smart:** Enabled by default, STRADIVARI CELLO's **Smart** fingering mode intelligently chooses the most realistic fingering for the notes played. As an example, when playing a chromatic passage, the **Smart** mode chooses to play the notes on the same string when possible, just as a real cellist would do, yielding realistic results. In contrast, when playing a motif moving around different strings in the same area of the fingerboard, fingering on different strings is preferred intelligently and realistically.
 - **Low String:** Fingering on lower strings is preferred when possible. Playing passages on lower strings results in softer and more delicate timbre.
2. **Fingering Visualization:** Displays the fingering visualization in the fingerboard interface using dots. For more information, see [Fingering Visualization](#).
3. **Force Open Strings:** Select the preferred keyswitch for forcing open strings using the **Force Open Strings** control. For more information see [Force Open Strings](#).
4. **Open** (dots icon): Opens the Position page.
5. **Close** (x icon): Closes the Position page and returns to the Main page.

11.1. Fingering Visualization

In STRADIVARI CELLO, the fingering is visualized in the fingerboard interface with dots.



The dots indicating the fingering position.

The following dots are used to represent different actions:

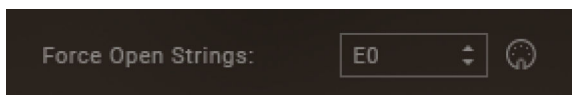
- **White:** When playing notes, the white dots in the fingerboard interface shows the finger and string position in real time.
- **Dim:** The dimmed dot shows alternative finger and string positions, which can be forced by enabling another fingering preference with the **Preference** selector.
- **No fill:** A dot without a fill indicates that the note can be played on an open string.



When playing notes, the dots indicating the fingering position can also be seen in real time on the lower right-hand side of the Main page.

11.2. Force Open Strings

STRADIVARI CELLO's engine can be forced to use open strings where possible. The active keyswitch for **Force Open Strings** is indicated with an illuminated green key in the keyboard section, located at the bottom of the KONTAKT or KONTAKT PLAYER window.



The Force Open Strings keyswitch and MIDI learn button.

- **Keyswitch Selector:** Selects the preferred keyswitch for **Force Open Strings**. Drag the selector up or down to select the the keyswitch note.
- **MIDI Learn:** Activates the MIDI Learn button. Use this to alternatively set the keyswitch by pressing a key on your MIDI keyboard or controller.

12. Mixer

STRADIVARI CELLO has been recorded with a multi-microphone setup, using a total of 32 microphones in close, middle and far positions. These microphone positions can be controlled within the Mixer page. The mixer controls can be used to adjust the loudness, position and depth of the instrument in the mix. For example, when composing or performing a piece designed for a string quartet, the mixer controls can be used to place each instrument of theCremona Quartet series in their respective realistic string quartet positions.

The Room Noise was captured in the historical Auditorium Giovanni Arvedi, and can be used to remove digital silence even with longer pauses between notes. This provides a great way to glue your cello performance together and give it an extra hint of realism.

The Mixer contains the following controls:



The Mixer controls.

1. **Open** (mixer icon): Opens the Mixer page.
2. **Microphone On/Off**: Switches each microphone position on or off, accessible in the multi-microphone version of STRADIVARI CELLO. This will also purge the samples from the NKI, ideal for saving system resources.
3. **Pan**: Adjusts the placement of each microphone mix in the stereo field. Turn the control left or right to adjust to the desired position.
4. **Volume Slider**: Adjusts the volume of each microphone mix.
5. **Room Noise**: Adjusts the amount of **Room Noise**. Use the slider to increase or decrease the amount of the noise floor of the auditorium captured during the recording process.
6. **Close** (x icon): Closes the Mixer and returns to the Main page



Note that the standard NKI version of STRADIVARI CELLO features a stereo mixdown of the 32 microphones used during the recording process. Therefore the Mixer is only available in the multi-microphone instance of STRADIVARI CELLO.

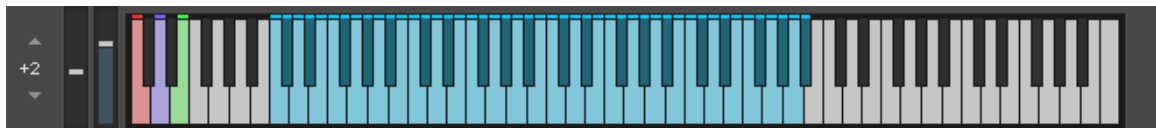


STRADIVARI CELLO was recorded and captured as closely and realistically as possible to the true sound of the instrument. Therefore the Mixer does not include separate effects controls. However, you can control the reverb and spaciousness of the sound by adjusting the Far mic position.

13. NKS Integration, Host Automation, MIDI CC Mapping

13.1. NKS Keyboard Mapping

STRADIVARI CELLO supports NKS (Native Kontrol Standard). The default NKS mapping can be seen in the KONTAKT or KONTAKT PLAYER keyboard:



Virtual keyboard in KONTAKT indicating the NKS mapping with colors.

- **Red:** The Red keys are used for switching between different articulation slots. For more information, see [Articulation](#).
- **Purple:** The purple key is used for the **Bow Change** feature. For more information, see [Bow Change](#).
- **Green:** The green key is used for the **Force Open Strings** feature. For more information, see [Force Open Strings](#).
- **Blue:** The blue keys indicate the range of notes playable with STRADIVARI CELLO

13.2. NKS Control Mapping in STRADIVARI CELLO Multi Mic

STRADIVARI CELLO Multi Mic NKI comes with pre-mapped NKS controls.



STRADIVARI CELLO's Multi Mic NKS controls as seen in COMPLETE KONTROL software.

The following controls have been pre-mapped:

- Expression
- Vibrato Style
- Vibrato Intensity
- Vibrato Rate
- Position Preference
- Volume, Close Microphone
- Volume, Mid Microphone
- Volume, Far Microphone

13.3. NKS Control Mapping in STRADIVARI CELLO

The standard version of STRADIVARI CELLO comes with pre-mapped NKS controls.



STRADIVARI CELLO's NKS controls as seen in KOMplete KONTROL software.

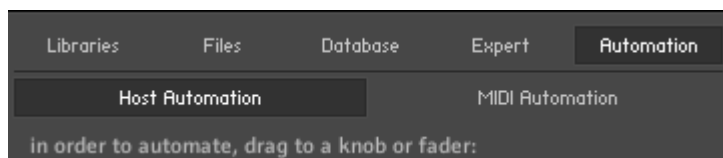
The following controls have been pre-mapped:

- Expression
- Vibrato Style
- Vibrato Intensity
- Vibrato Rate
- Position Preference

13.4. Host Automation

STRADIVARI CELLO has pre-mapped host automations.

- Click **Automation** in the top-left side of KONTAKT or KONTAKT PLAYER to show the list of mapped parameters.



- Click **Host Automation** to show the list of pre-mapped host controls.

13.4.1. Pre-Mapped Host Parameters for STRADIVARI CELLO Multi Mic NKI

The following parameters have been pre-mapped for STRADIVARI CELLO Multi Mic:

Host parameter	Assigned to
# 000	Expression
# 001	Vibrato Style
# 002	Vibrato Intensity
# 003	Vibrato Rate
# 004	Position Preference
# 005	Volume, Close Microphone
# 006	Volume, Mid Microphone
# 007	Volume, Far Microphone

13.4.2. Pre-Mapped Host Parameters for STRADIVARI CELLO NKI

The following parameters have been pre-mapped for STRADIVARI CELLO's standard version:

Host parameter	Assigned to
# 000	Expression
# 001	Vibrato Style
# 002	Vibrato Intensity
# 003	Vibrato Rate
# 004	Position Preference

13.5. MIDI CC Mappings

The following MIDI CCs are either pre-mapped or used internally by .

Pre-mapped CCs have the respective parameters written next to them. The unmarked CCs are used internally by the STRADIVARI CELLO engine. It is suggested to avoid using or remapping these CCs to avoid any possible MIDI issues.

CC	Parameter
1	Dynamic
2	
3	
4	
11	Expression
14	Vibration Intensity
15	Vibrato Rate
20	Vibrato Style
21	Position Preference
35	
40	
41	
42	

CC	Parameter
43	
45	
50	
51	
52	
102	
103	
104	
105	
106	
107	
108	
109	

14. Credits

Hamburg

Thomas Koritke, Alexander Paprotny, Andreas Rogge, Till Weinrich, Lars Dahlke, Sascha Haske, Dr. Florian Pfeifle, Martin Bartsch, Martin von Frantzius, Iain Horrocks, Jochen Kux, Ivo Sloman, Andreas Barzyk, Johannes Marguerre

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