MOJO

UPRIGHT BASS

vir2
INSTRUMENTS

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Instrument Introduction

Vir2 Instruments is proud to introduce MOJO: Upright Bass, a premier addition to the MOJO instrument family. Over the past year, we have dedicated ourselves to developing the most advanced and lifelike upright bass virtual instrument available. With the skill of the acclaimed jazz bassist, Stefan “Pista” Bartus, and an exceptionally talented sampling team, we are excited to present this uniquely resonant 150-year-old upright bass.

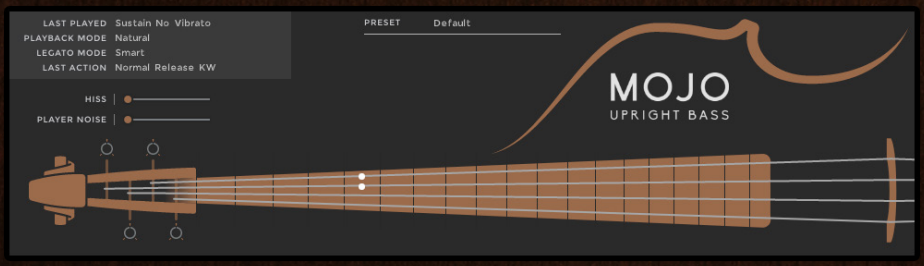
This exquisite jazz upright bass offers five microphone positions, along with a pre-mixed option to accommodate lighter computer usage. Recorded through the Studer A900 analog console and Lynx Aurora 16 A/D converters at 24bit/96kHz, this instrument is meticulously sampled with eight articulations. These include performable repetitions, a variety of percussive hits on different parts of the bass body for extended creative possibilities, and genuine played chords.

With a dynamic range featuring up to six layers, up to eight round-robins, true legato, and an array of superbly designed presets and MIDI grooves, you can take your upright bass performances to new heights. Additional features include speed-dependent articulation switching for note repetitions, the option to select specific bass strings, beautifully authentic vibrato sustains, simulated vibrato based on real vibrato curves for enhanced control, adjustable string buzz, and an FX Suite for full customization.

MOJO: Upright Bass encompasses over 35 GB of uncompressed sample content. Whether your project demands the genuine feel of human playing for jazz, pop, rockabilly, or any genre where a synthetic sound just won’t do, this instrument delivers. Our goal was to create an upright bass library that fulfills every requirement for composing, programming, and recording incredibly realistic bass lines. With MOJO: Upright Bass, that vision is now a reality.

Main Fretboard

The upper area of MOJO: Upright Bass is always visible no matter what page of the instrument you are on. Its primary purpose is to give real-time feedback of what is being played in both the bass fretboard and the information display in the upper left corner. You'll notice on the fretboard real-time feedback of the notes being played, forced string information, and capo placement.



Info Display:

- **Last Played** shows the type of note last played; i.e. sustain, harmonic, etc.

- **Playback Mode** shows the current playback mode the instrument is in (natural, poly, mono).

- **Legato Mode** shows whether legato is on or off and whether you are in smart or forced legato modes.

- **Last Action** shows non-audible changes made via keyswitches. For example, if you change the release sample from normal to rockabilly slap or if you hit the force slide keyswitch.

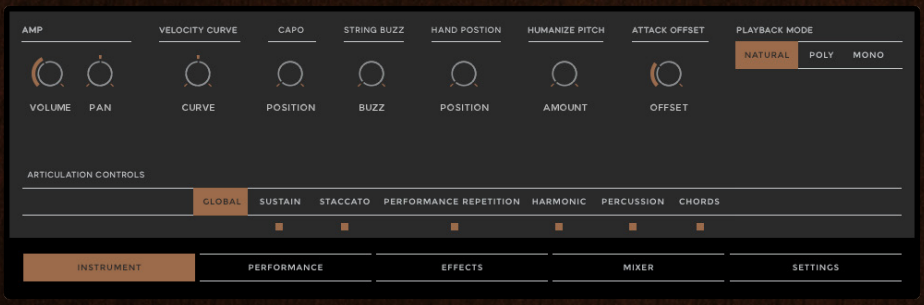
Preset Dropdown: Choose between various preset setups for the bass. These setups include combinations of playing style preferences, custom FX, and mic mixes.

Hiss and Player Noise: Increase tape hiss and ambient musician sounds taken from our actual recording sessions for this instrument. In certain settings, these could add a nice character and vibe to your compositions.

Tuning Knobs: Adjust the pitch of each string +/-2 semitones for unique, custom tunings other than standard.

Instrument Page

The Instrument Page is where you will find all of the settings for all the articulations available as well as global controls for the overall instrument performance. There are seven tabs at the bottom of the Instrument Page, each with an on/off selector beneath to help manage CPU load if desired.



Global Tab

Amp: Global volume and pan controls for the whole instrument.

Velocity Curve: Shape the responsiveness of your MIDI velocity input.

Capo: Add a capo to frets 1-6, represented visually on the fretboard.

String Buzz: Increase the amount of string buzz to your notes. This effect can add a more realistic human element to your performance.

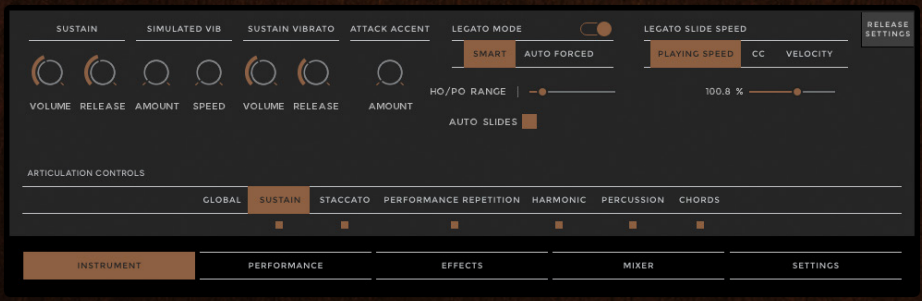
Hand Position: By default, the instrument will generally try to choose hand positions closer to position 0, moving your hand position up the fretboard only when necessary. If you wish to have the instrument generally play higher up the neck you can increase this setting up to hand position 9 on the fretboard. Keep in mind the engine will still move the hand position lower than your set hand position when necessary. In general though if you set your hand position to 5 the engine will try to play the notes as close to position 5 as possible.

Humanize Pitch: Add more pitch variation to your played notes. The bass is a fretless instrument, therefore slight pitch variations can be a natural part of an upright bass performance.

Attack Offset: Increase or decrease the sample start time of your played notes. Turning the knob left will allow more pre-attack, but will also start to introduce more latency which you will need to compensate for in your MIDI performance. Turning more right on the knob will make your instrument playback with more immediate responsiveness. Keep in mind the further to the right you go, the less pre-attack of the notes will be heard, perhaps losing some realism to the sound of the instrument.

Global Tab (Continued)

Playback Mode: Choose between three modes, Natural, Poly, or Mono. Natural playback mode will allow for polyphonic playback, but only when it's natural to the instrument itself and a real player. Both chords and lead lines are possible in this mode. If you want to exclusively play single notes, switch to Mono mode which is ideal for lead lines and solo playing. Polyphonic mode removes the limitations of a real bass player, allowing you to play any combination of notes whether physically possible on a bass or not. Think of this mode as a traditional keyboard bass.



Sustain Tab

Sustain: Adjust the volume and release time for the sustains non-vibrato articulation.

Simulated Vibrato: Increase the amount and speed of the simulated vibrato effect. The simulated vibrato uses our real performed vibrato curves to give the most natural sounding simulated vibrato possible (active with C0).

Sustain Vibrato: Increase the volume and release of the real performed vibrato samples (active with C#0).

Attack Accent: Increase the attack amount to the beginning of the sample.

Legato Mode: Toggle the Legato Mode on/off.

Smart Legato: The engine chooses legato transitions that a real bass player might play.

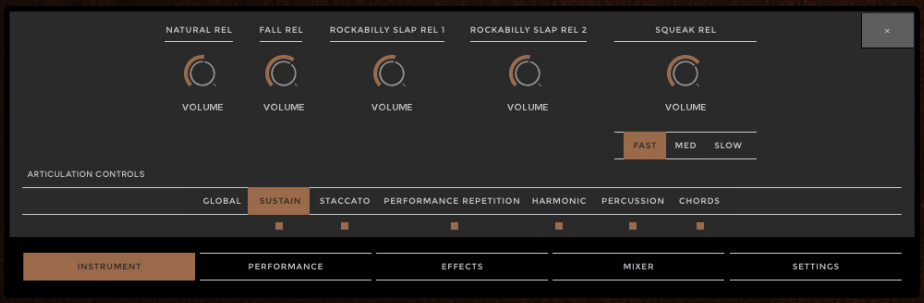
Auto Forced: Legato transitions are forced anytime two notes are played and overlapped. The exception to this would be if the engine were to play them on a different string. In this case, legato transitions aren't available, so the engine will just re-pluck the second note instead of playing a hammer-on/pull-off or slide. In these cases where a legato is desired but the engine is changing strings, you can use a force string keyswitch or the "force ho-po" or "force slide" keyswitch to ensure the legato transition is played. So long as the two notes exist on the forced string, a legato transition will then be played.

Sustain Tab (Continued)

HO/PO Range: Set the maximum range of your hammer on or pull off legato articulation. By default, this range is set to 2 semitones. When a legato is performed above this range, a slide will be performed instead of a hammer-on or pull-off. However, as mentioned above, a slide will only occur if the engine chooses to play the second note on the same string.

Auto Slides: With Auto Slides on, the engine will use a slide transition for intervals larger than the HO/PO threshold slider is set to. These slides of course will not occur when the engine chooses to change strings for the target note.

Legato Slide Speed: Choose how slide speeds will be determined by selecting between Playing Speed, CC, or Velocity. When Playing Speed is selected, your slide speeds will be slower if two overlapped notes are played further apart. The speed will increase the faster the time between the first and second overlapped note. If CC is selected, you can now assign the slide speed slider to a MIDI CC. Right-click or control-click on the slider then select “Learn MIDI CC automation.” Next turn the MIDI CC knob you want the slider assigned to; the slide speed will now be controlled by that MIDI CC knob. Choosing the Velocity option will give you faster slide speeds for louder velocities played and slower speeds for quieter velocities.



Sustain Tab - Release Settings

Natural Release: Increase the volume of the release samples (active with F5).

Fall Releases: Increase the volume of the fall release samples (active with F#5 and G5).

Rockabilly Slap Releases: Increase the volume of each slap release sample (active with G#5 and A5).

Squeak Release: Increase the volume of the squeak release samples. Choose from Fast, Medium, and Slow squeak releases (available on A#5).

Staccato / Harmonic / Chords Tabs

Amp: Control the volume and release time for all articulation samples. Please note, the Chord articulation has its own keyboard layout. Please see Page 18 for more info.

Performance Repetition Tab

Amp: Control the volume and release time for all repetition articulation samples.

The 8th/16th Select: Choose between Auto and Manual note repetition modes.

Auto Mode: The engine will automatically select which samples to choose from based on the time threshold slider. If you set your threshold to 150 ms, any two notes played faster than 150 ms apart will play the 16th note repetition samples. Anything played slower than 150 ms apart will perform the slower 8th note repetition sample. This occurs regardless of whether you've selected 8th note or 16th note repetitions in the articulation keyswitches.

Manual Mode: The engine will simply perform the selected keyswitch articulation chosen: 8th note repetition (D#0) or 16th note repetition (E0).

Percussion Tab

Amp: Control the volume, attack, and release time of all percussion articulation samples globally.

Quick Slots: To access all percussion samples, switch to the percussion articulation with the F#0 keyswitch. We also provide 10 percussion Quick Slot keys that are always available, regardless of the selected articulation.

To adjust the samples on the 10 Quick Slot keys, click the sample name to see a dropdown of all available samples or use the learn function. For the learn function, switch to the percussion keyswitch (F#0). The blue playback range will perform all percussion samples. Find the desired sample, hit the learn button on the desired slot, and then hit the sample key in the blue playback range. You can control the volume, attack, and release time for each of the quick slots.

Performance Page

The Performance Page lets you filter through a huge selection of custom MIDI performances by category, meter, key, and scale.

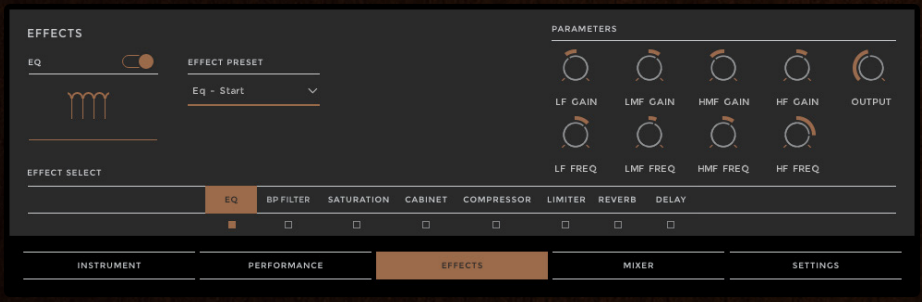
Star: Favorite multiple performances. Use the star at the top as a filter.

Speaker: Mute/un-mute the playback of each performance.

MIDI: Click and drag the selected MIDI performance to your DAW or drive.

Effects Page

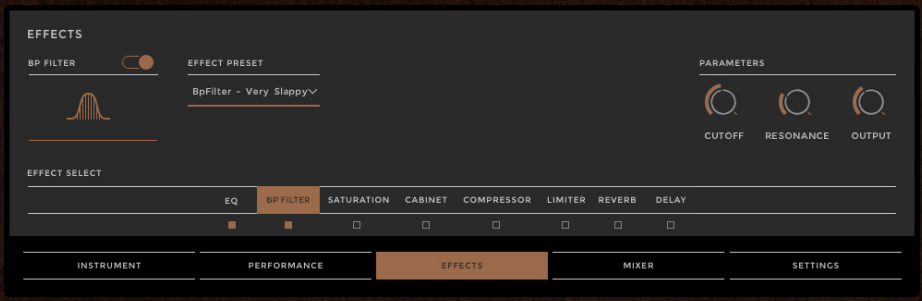
Choose between eight different effects to apply from this section. Presets are available for all the effects to get you started quickly. In addition to the on/off controls in each tab, there is a box below each effect name to quickly turn any effect on or off.



EQ Tab

Gain and Frequency: Parametrically boost or cut the lows, low-mids, hi-mids, and hi frequencies.

Output: Adjust the overall output volume.

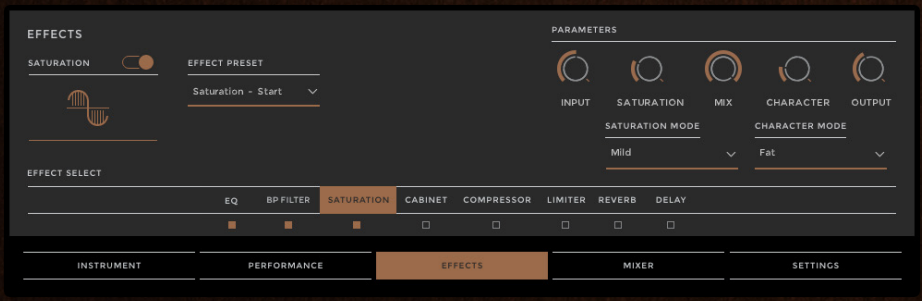


BP Filter Tab

Cutoff: Adjust the frequency of the bandpass filter cutoff.

Resonance: Increase or decrease the resonance of the filter.

Output: Adjust the overall output volume.



Saturation Tab

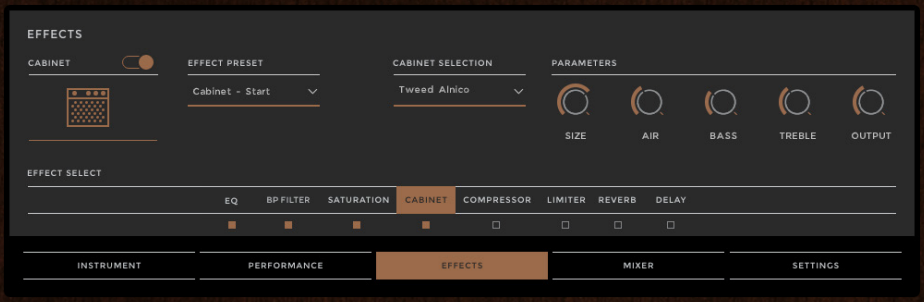
Input: Add more gain to the saturation effect. The more gain added, the more pronounced the saturation effect will be.

Saturation & Saturation Mode: Increase the saturation of your audio with this knob. The saturation mode can be set to mild, moderate, or hot with the dropdown.

Mix: Saturation can be applied in parallel signals. Dialing back the mix to 50% means the audio signal is a combination of half bypassed and half effected signals.

Character & Character Mode: Adds the specified character of your saturation to the signal. Choose between fat, warm, or bright characters in the dropdown.

Output: Adjust the overall volume of your signal.



Cabinet Tab

Cabinet Selection: Choose from a selection of classic amp models.

Size, Air, Bass, and Treble: Refine your tone.

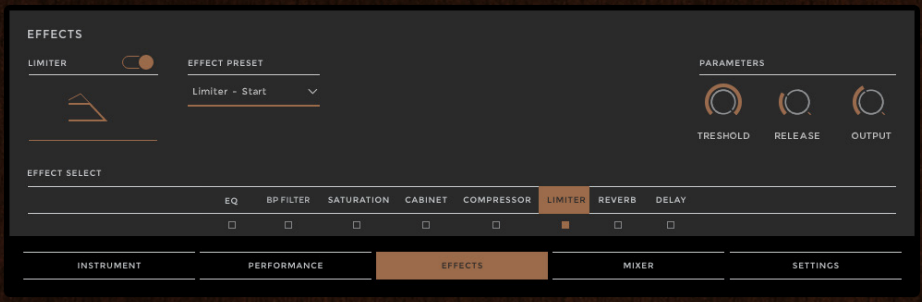
Output: Adjust the overall output volume.

Compressor Tab

HPF: Bypass the low end of your signal from the compressor by choosing either a 100hz or 300hz high-pass filter.

Input, Compression, Attack, Release, and Mix: Fine-tune your compression settings.

Output: Adjust the overall output volume.



Limiter Tab

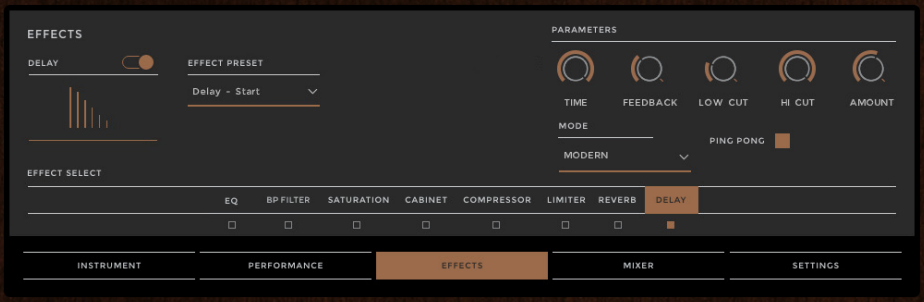
Threshold and Release: Set the dB limit and release time.

Output: Adjust the overall output volume.

Reverb Tab

Impulse Response: Choose a reverb environment.

Send, Pre Delay, High Pass, Low Pass, and IR Size: Sculpt the sound of the reverb.



Delay Tab

Time: Set the subdivision of the delay.

Feedback: Decrease or increase the length of the delay signal.

Low Cut, Hi Cut, and Amount: Shape the sound of the delay.

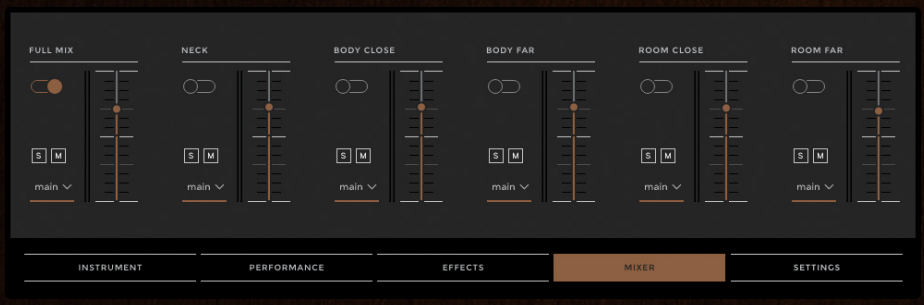
Mode: Choose a delay mode.

Ping Pong: Toggle on/off a stereo ping pong effect.

Mixer Page

The Mixer offers a custom stereo full mix and five mic positions. The full mix is enabled by default. To customize, turn off the full mix and try the five mic positions: three mono close mics and two stereo room mics. The neck mic provides detailed string sound, the body close mic offers fuller low-end sound, and the body far mic adds room tone. Add room close or room far mics for enhancement. Use two or three mics for the best results; all five are usually unnecessary.

Each mic position has solo/mute buttons, and a dropdown for routing to its own output. In the multi-output version of Kontakt, mix each mic with your own plugins in your DAW.



Settings Page

Settings Tab

Articulation MIDI Select: When on, tabs in the Instrument Page will automatically be selected as their corresponding articulation is selected from the keyswitches. For example, when switching from sustains to staccatos, the staccato tab will automatically be selected and displayed.

Release Key Mode: There are three modes associated with the release keys:

Latch: When any release keyswitch is pressed on the keyboard, that release will stay selected until a different release key is played.

Non-Latch: In this mode, releases other than the Normal Release key must be held down for its corresponding release to be active. Once a release key is let go, the releases will return to the Normal Release option.

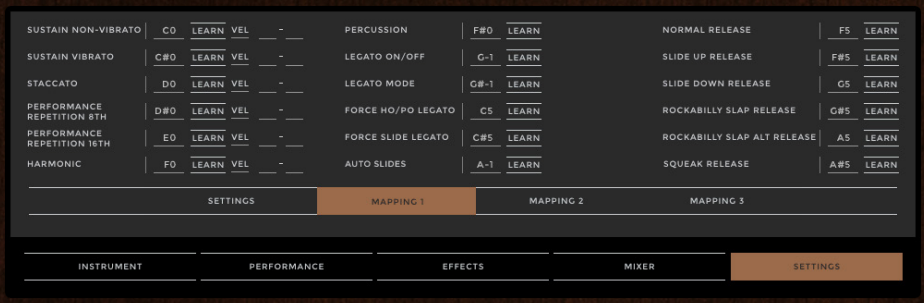
Perform: This mode turns all release keys into a performable trigger. For example, when a sustained note is held and you press the Fall Release, the slide will be performed while simultaneously releasing the held sustain. The Normal Release (F5) will stay latched whenever any other release keyswitch is not in use.

MIDI CC: For most controls you can manually assign MIDI CC controls by right-clicking (or control+click) on a knob or slider and selecting “Learn MIDI CC Automation” then moving the MIDI CC knob to assign. However, a few controls in Kontakt don’t allow for that option. For these items we have given you the ability to assign their controls in this section.

Latch: Choose whether certain keyswitches will be latched or not.

Articulation keyswitches are latched by default. If you turn latch off for the Articulations, you will need to hold down the desired articulation keyswitch for them to be active. Once the keyswitch is released the articulations will automatically revert back to non-vibrato sustains.

With latch on for either Force String or Legato, press the key once to turn on that mode. Press again to turn off that mode. For example, if you press the Force Slide Legato keyswitch, the engine will remain in a mode to force slides between notes until you press it again. With latch off, those modes will only be active while the key is being held down.



Mapping 1-3 Tabs

The Mapping tabs assign the MIDI key for all articulations, play mode keys, quick slots, and more. Basically any key that is not in the blue play range.

Click and drag the note assignment to change its mapped location. The Kontakt keyboard will display the change accordingly.

Learn: Choose your mapping location using your MIDI controller. Each key can only have one mapping assignment at a time. When a key has been double-mapped, a (!) icon will appear until the mapping issue has been resolved.

Velocity Range: Most of the main articulations can be placed in a “velocity stack” with two or more articulations. For instance, to have sustains non-vibrato play at quieter velocities and staccatos at louder velocities without using articulation keyswitches, click the “VEL” button next to both articulations. Set the desired range for each: for example, sustains from 1-75 and staccatos from 76-127.

Note 1: The same velocity stack is active regardless of which of the articulation keyswitches from that stack is selected.

Note 2: Play ranges can’t overlap. If sustains are set from 1-100 and staccatos from 80-127, an error icon will appear. Adjust the ranges to remove the overlap.

Keyboard Layout

Pink - Legato

- G0 - Legato On/Off Toggle
- G#0 - Legato Smart/Auto Forced Toggle
- A0 - Auto Slides On/Off Toggle

Red - Articulation Keyswitches

- C0 - Sustain No Vibrato
- C#0 - Sustain Vibrato
- D0 - Staccato
- D#0 - Performance Repetitions 8th Notes
- E0 - Performance Repetitions 16th Notes
- F0 - Harmonics
- F#0 - Percussion
- G0 - Chords (see below)

Light Blue - Repeat Last Played Note

Blue - Play Range

Yellow - Force string

- F4- Force E String
- F#4 Force A String
- G4 - Force D String
- G#4 - Force G String

Green - Force HO-PO/Force Slide

Orange - Releases

- F5 - Normal Release
- F#5 - Fall Release Up
- G5 - Fall Release Down
- G#5 - Slap Release
- A5 - Alternate Slap Release
- A#5 - Squeak Release

Violet - Percussion Quick Slots 1-10

- C6-A6

Aqua - Playback Mode (Velocity Sensitive)

- Natural Mode: 1-49
- Poly: 50-99
- Mono: 100-127

Chord Keyboard Layout

To reserve keyboard space in Chords Mode (G0), only relevant keyswitches are available. The articulation keys, the chord types, and percussion.

Red - Articulation Keyswitches

Blue - Play Range.

This play range is divided into three sections:

A1-G#2 staccatos

A2-G#3 sustains

A3-A4 arpeggios

Mint - Chord Type

C5 - Major 7th

C#5 - Major 6th

D5 - Major 5th

D#5 - Diminished

E5 - D7/E

F5 - D7/A

F#5 - Minor 7th

G5 - Plus 5

G#5 - Minor 6th

Violet - Precision Quick Slots

C6-A6

About the Artist

Stefan Bartus is an accomplished jazz bass player, composer, educator, and producer based in Austria, originally from Slovakia. He completed his studies at the J. L. Bella Conservatory in Banská Bystrica and the Academy of Performing Arts in Bratislava. During his academic career, he distinguished himself in international competitions and participated in numerous workshops focusing on classical and jazz music. His public performances and recitals have showcased the bass as a solo instrument.

Bartus serves as a juror and lecturer at the Slovak Doublebass Club and Slovak Jazz Competitions. He has collaborated with ensembles across a diverse range of musical genres, including classical, ethnic, world music, and gospel. His performances span international festivals in countries such as the US, Turkey, Russia, China, India, Cuba, Morocco, South Africa, and many EU nations.

Since 2000, Bartus has concentrated on jazz, working with esteemed artists such as Benny Golson, Peter Bernstein, Peter Erskine, Bill Evans, Danny Grissett, Willie Jones III, and Gregory Hutchinson, among others. His notable collaborations as a featured soloist include engagements with the Radio Symphonieorchester Wien, Brno Philharmonic Orchestra, Czech Philharmonic, Slovak State Philharmonic Košice, Barbara Bruckmüller Big Band, Big Band RTV Slovenia, and the Gustav Brom Big Band.

System Requirements

The library requires approximately 18.4 GB once installed
Kontakt 7 Player or Kontakt 7
4GB RAM or more

MAC: OS 12 or higher
64 bit compatible
Intel Core i5 or later
Or Apple Silicone Macs

WINDOWS: OS 10 or higher
64 bit compatible
Intel Core i5 or equivalent CPU

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Credits

Executive Producer . . . . . **Vir2 Instruments**

Producer . . . . . **Przemyslaw Kopczyk**

Recording Engineer . . . . . **Alfred Chrastek**

Bass Performer . . . . . **Stefan "Pista" Bartus**

Sample Editing & Patching . . . . . **Przemyslaw Kopczyk, Steven Bolar, Michael Boone**

Kontakt Scripting . . . . . **Flavio Cangialosi**

GUI Design . . . . . **Ingo Hermes**

Cover Design . . . . . **Albert Grose**