

SESSION GUITARIST

Strummed Acoustic 2

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THE FUTURE OF SOUND

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Special thanks to the Beta Test Team, who were invaluable not just in tracking down bugs, but in making this a better product.

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1 Welcome to STRUMMED ACOUSTIC 2

Thank you for purchasing SESSION GUITARIST – STRUMMED ACOUSTIC 2, an acoustic guitar strumming sample library powered by KONTAKT. This document will provide you with instructions and advice on how to use the library, as well as some additional information.

We hope that you will be truly inspired by using SESSION GUITARIST – STRUMMED ACOUSTIC 2.

About SESSION GUITARIST – STRUMMED ACOUSTIC 2

SESSION GUITARIST – STRUMMED ACOUSTIC 2, or STRUMMED ACOUSTIC 2, as we will call it in this manual, is a pattern-based guitar strumming library designed for ease of use in musical productions. Its samples originate from two carefully selected vintage guitars, a small-bodied Martin O-17 mahogany 6-string guitar from 1934, and a Guild F-412 12-string built in the 1960s. The Martin O-17 was recorded using a hand-picked vintage Gefell UM70 large diaphragm condenser microphone and a vintage Schoeps/Strässer cm060. The Guild F-412 was recorded through a rare vintage Schoeps 221b small diaphragm condenser and an AEA R84 ribbon microphone. For the Martin O-17 6-string, the SPL GainStation 8 preamp's tube stage was utilized to create a little bit of edge, while the Guild F-412 12-string was recorded solely through the solid state circuitry to achieve a cleaner sound. The signals were then converted by the SPL Madison analog-to-digital converter, and fed into an RME MADiface XT via MADI.

Thanks to the quality and placement of microphones, superb room acoustics, and a high end signal path, no additional signal processing was required to capture the unique character of the instruments – only the AEA R84 ribbon mic used with the Guild F-412 got a little high-frequency boost to compensate for its darker sound. You will find that the STRUMMED ACOUSTIC 2 sound sits perfectly in any mix and barely needs any additional processing like EQ or compression.

The STRUMMED ACOUSTIC 2 library consists of two separate KONTAKT Instruments. The Guild F-412 12-string guitar Instrument contains 51 patterns, while the Martin O-17 6-string guitar Instrument contains 112 patterns. All of these patterns were performed live by professional studio guitarists Floryan Kørber, Viktor Derksen and Andreas Dombert. The patterns are grouped as "songs", each of which contains 6-8 patterns that go together well. You can select patterns via keyswitches and play them as chords on your MIDI keyboard. Pattern playback will always stay in sync with your host project. Regarding sound options, STRUMMED ACOUSTIC 2

offers stereo mode, true doubling mode, as well as the possibility to blend between a low and a high voicing. With a selection of easy-to-use audio effects, you will immediately be able to tweak the sound to your liking.

The key feature of STRUMMED ACOUSTIC 2 is its revolutionary playback engine. You can seamlessly switch between different patterns, and also alter the dynamics in real-time, thus creating true-to-life musical performances. In contrast to most pattern-based instruments, the number of available chord types is virtually endless. Because all nuances of the original performance, such as exact timing and dynamics, are preserved, you will notice that the instrument feels very natural and organic. All of the integrated patterns can be played over a huge tempo range in an outstanding sound quality.

Some of STRUMMED ACOUSTIC 2's patterns, as indicated by a bass clef next to the pattern name, allow you to play separate bass lines and slash chords: Simply play the desired chord with your right hand, and add an independent bass note with your left hand to spice up your playing for country, bluegrass, folk and more.

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 often help you to solve a task more efficiently.



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



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

Furthermore, the following formatting is used:

- Text appearing in (drop-down) menus (such as *Open...*, *Save as...* etc.) in the software and paths to locations on your hard disk or other storage devices is printed in *italics*.

- Text appearing elsewhere (labels of buttons, controls, text next to checkboxes etc.) in the software is printed in **blue**. Whenever you see this formatting applied, you will find the same text appearing somewhere on the screen.
 - Important names and concepts are printed in **bold**.
 - References to keys on your computer's keyboard you'll find put in square brackets (e.g., "Press [Shift] + [Enter]").
- Single instructions are introduced by this play button type arrow.
- Results of actions are introduced by this smaller arrow.

2 Using STRUMMED ACOUSTIC 2

The STRUMMED ACOUSTIC 2 instrument is designed to be played using a MIDI keyboard. The patterns are triggered and selected by MIDI, allowing for fast arranging.

Patterns will automatically sync to the master, or host tempo. The patterns in this library can be played at any tempo between ca. 60-65bpm and up to 180bpm and even above. Since there is no time-stretching involved in the process, you will always hear the patterns in the highest possible quality.



The patterns are based on actual recordings by a professional studio guitarist, so they sound best in the typical tempo range preferred by most guitarists.

2.1 Pattern Selection and Playback

Up to eight patterns can be assigned to chromatic keyswitches from C1 to G1 (this process is described in section [↑3.2, The Pattern Browser](#)). These keyswitches are displayed as red keys in the KONTAKT on-screen keyboard. If no pattern is assigned to a slot, the corresponding key will have no color.



The KONTAKT on-screen keyboard displaying the keyswitches for patterns (red), endings (yellow), pickups (green), and open strings (orange). Chords can be played in the blue key range.

- **To select a pattern using your MIDI keyboard**, press the corresponding keyswitch MIDI note.

- To select a pattern via the user interface, click on the pattern you wish to use.



- To play a pattern, play chords on your MIDI keyboard. If Latch mode is enabled (see chapter [↑5, The Playback Page](#)), playback will continue even if you release the keys.
- To stop the playback, either trigger one of the five endings (see section Playing Endings and Pickups) via keyswitch or, if Latch mode is disabled (see chapter [↑5, The Playback Page](#)), release the keys on your keyboard.

Because transition from one pattern/chord to another is always *legato* (without breaks), it is best to make changes a little *before* the intended position, so that the engine is able to anticipate and add any requested effects (e.g. fret noise). The switch will occur seamlessly at the nearest possible position. Find more information in chapter [↑6, Tips and Tricks](#).



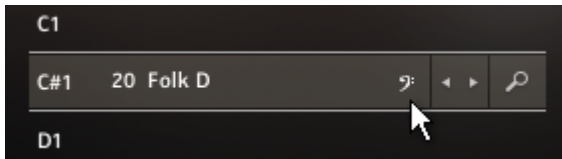
If available, “Chase Events” should be enabled in your DAW settings; this will ensure that the engine gets proper note information on sequencer start or cycle jumps.

2.2 Playing Chords and Separate Bass Lines

STRUMMED ACOUSTIC 2 recognizes a great variety of chords, including major, minor, no third, diminished, augmented, half-diminished, various suspensions, options and alterations, and even some slash chords (e.g. G/C, Gmi/C, G7/C, Gmi7/C, Bb/C). You can also hold a chord or a 5th interval with your left hand while playing a top note melody line with your right hand

and play separate bass lines with selected patterns. The instrument tries to play top lines, as well as thirds and options in the very register you play them. This leads to an enormous number of available chords and voicings.

STRUMMED ACOUSTIC 2 provides a type of pattern specifically for bass lines, indicated by a bass clef next to the pattern name. These patterns allow you to play bass lines with your left hand independently of the chords played with your right hand.



A bass clef indicates the separate bass patterns.

There is no fixed split point that would divide the key range of your keyboard into a bass note range and a chord range. Instead, while playing chords with your right hand, the light guide on the KOMPLETTE KONTROL keyboard dynamically highlights the range of keys available for playing a separate bass note in violet.

If you play a separate bass pattern with your right hand only, an appropriate bass note is added automatically, usually the chord's root note. Some of these patterns also create an alternating bass, e.g. the bass note alternates between the root note and the fifth above.

Now, as soon as you add a separate bass note with your left hand, the pattern will seamlessly transition from the automatically generated bass to the bass note pressed on the keyboard.



By playing a separate bass note, you can create all inversions of triads and seventh chords. You can even play chromatic bass lines with your left hand to accompany those chords as you hold them in your right hand.



The separate bass patterns do not like overlapping bass notes, because an overlap would technically mean that two different bass notes exist at the same time. An easy way to avoid those overlaps is to play the bass notes with only one finger. If you prefer to use more fingers of your left hand to play bass lines, make sure the notes you play do not overlap.

2.3 Playing Endings, Pickups and Open Strings

In addition to the actual patterns, STRUMMED ACOUSTIC 2 provides a variety of endings as well as pickup sounds and additional palm hits on the corpus/strings of the guitar. The corresponding sets of keys are marked yellow and green on the KONTAKT on-screen keyboard.

- ▶ **To trigger an ending with the current chord**, play any of the five keyswitches from G#1 up to C2 with the intended intensity (i.e. velocity). These ending keys are marked yellow in KONTAKT's on-screen keyboard. When an ending is played back, the current pattern playback will be stopped.
- ▶ **To trigger an ending with a different chord**, hit the new chord just before triggering the desired ending keyswitch. As a result, only the ending chord will be played back with the new chord.
- ▶ **To play a pickup sound**, play any of the two keyswitches C#2 or D2, marked as green keys, with the intended intensity (i.e. velocity).



Only the volume of Pickups and Endings can be altered via input velocity. To alter the dynamics of patterns, use the Pitch Wheel (see section [↑2.5, Controlling the Accents of Patterns](#)).

Use the Open String Key to Create Transitions

To make transitions between chords sound more natural, use the Open String feature. The orange D# key just below the blue area of the keyboard contains the sound of a guitarist playing open strings (E-A-D-G-B-E). Hit the Open String key slightly before triggering a new chord. This will replace the last strum before the chord change with the typical sound of strings briefly being released by the guitarist's left hand before they get pressed down again for the next chord.

For example: The guitarist plays A minor, takes the fingers off the fretboard and repositions them to play, let's say, F major. While his left hand performs the chord change, his right hand keeps strumming in time, eventually hitting the strings while no chord is pressed. This results in a typical "first chord to open string strum to next chord" transition.



If you press the Open String key (D#) just before the last strum of the first chord, the engine will automatically replace it with the open string sound at the exact position where the regular strum would have taken place. As with any chord or pattern change, make sure to hit the Open String key slightly before the beat to allow for a proper transition. Like all pickups and endings, this key is velocity sensitive, so you can fine-tune the character of your transition. As this feature only makes sense for short strums, strums longer than an 8th note will not be replaced when hitting the Open String key.

2.4 Blending between Low and High Voicings

For STRUMMED ACOUSTIC 2, all patterns have been recorded in a (default) low voicing as well as in a higher voicing. You can seamlessly blend between the two voicings, allowing for the impression of two players playing simultaneously, but with different voicings. Alternatively, you can achieve a sudden change of character from 100% low to 100% high, or vice versa, with the impression of only one player playing, but changing voicings.



The Voicing, Accent and Chord box in the top left corner of the instrument



For both low and high voicing, you have versatile stereo, doubling and panning options at hand. These are located on the Sound page (see chapter [14, The Sound Page](#))

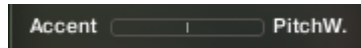
- ▶ **To adjust the voicing with the mouse**, drag the [Voicing](#) slider. The exact center position (50% low, 50% high) can be recalled via [Cmd] + click.
- ▶ **To adjust the voicing via MIDI**, move the modulation wheel (Mod Wheel, MIDI CC#1) on your MIDI keyboard.



The [Voicing](#) slider position is always mirrored by the [Voicing](#) slider position of the Sound page (see chapter [14, The Sound Page](#)), and vice versa.

2.5 Controlling the Accents of Patterns

The looped patterns included in STRUMMED ACOUSTIC 2 ignore the velocity information coming from your MIDI keyboard or host software/DAW. Instead, you can continuously control the dynamics of the performance with the bipolar (i.e. positive and negative) [Accent](#) slider.



The Accent feature

It works like this: With positive [Accent](#) settings, the guitarist will play more intensely, whereas negative [Accent](#) values will produce softer results. Using this feature, you can add a lot to the overall musicality of the performance.

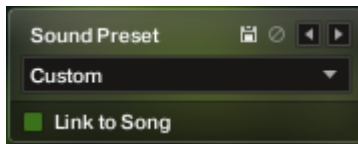
- ▶ **To adjust the accent slider with the mouse**, drag the [Accent](#) slider. The default center position can be recalled via [Cmd] + click.
- ▶ **To adjust the accent slider via MIDI**, move the pitchbend wheel on your MIDI keyboard. The default center position of the slider should correspond with the default center position of your pitchbend wheel.



The [Accent](#) slider, respectively the pitch wheel automation in your sequencer, can also be used to smooth out transitions between patterns with differing overall dynamic in order to create a more natural performance.

2.6 Loading/Saving Sound Presets

With STRUMMED ACOUSTIC 2, you can customize the sound both easily and effectively. All sound parameters are located on the Sound page (see chapter [↑4, The Sound Page](#)). Even without actually adjusting any sound parameter, you can recall various sound presets from the [Sound Preset](#) drop-down menu in the top right corner of the instrument.



The Sound Preset box in the top right corner of the instrument

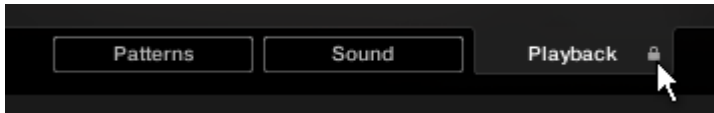
- ▶ **To load a factory or user sound preset**, either select a preset from the drop-down menu, or cycle through all presets by clicking the little triangular left and right arrow buttons.
- ▶ **To save a new user sound preset**, enter a preset name into the field and click on the floppy disk icon. This will store the current sound settings (see chapter [↑4, The Sound Page](#)), including the voicing and accent slider positions, into a new user preset.
- ▶ **To overwrite a user sound preset**, click on the floppy-disk icon again, after you've changed sound settings, but not the preset name itself.
- ▶ **To delete a user sound preset**, select it from the drop-down menu, then click the circular delete button.
- ▶ **Linking sound presets to Song presets**: When you check the [Link to Song](#) checkbox, each loading of a Song preset (see section [↑3.1, The Song Browser](#)) will recall and apply a specific factory sound preset.



Any modification or deletion of user sound presets is being performed on a global level. This means that all these changes will be persistent, even if you close the instrument without saving it.

2.7 Locking Parameters When Loading Snapshots or Songs

Normally, when you load snapshots or Songs (see section [↑3.1, The Song Browser](#)) of the instrument, all parameters will be set accordingly. Thus, snapshots and Songs are stored and recalled globally. To prevent the [Playback](#) and/or [Auto Chords](#) parameters from being changed by loading snapshots or Songs, click the lock icon on the [Playback](#) tab.



When the Playback parameters are locked, they will not be changed by snapshots or Songs.

2.8 Defining the Downbeat after Signature Changes

Since there is no way for the instrument to recognize signature changes or insertions of half a bar etc. present in your DAW session, its pattern playback would get out of sync in those cases. To solve this problem, you can use the global transport offset feature to compensate for a change of signature or bar length during playback.

- To define a global transport offset in ticks, send MIDI CC#111.

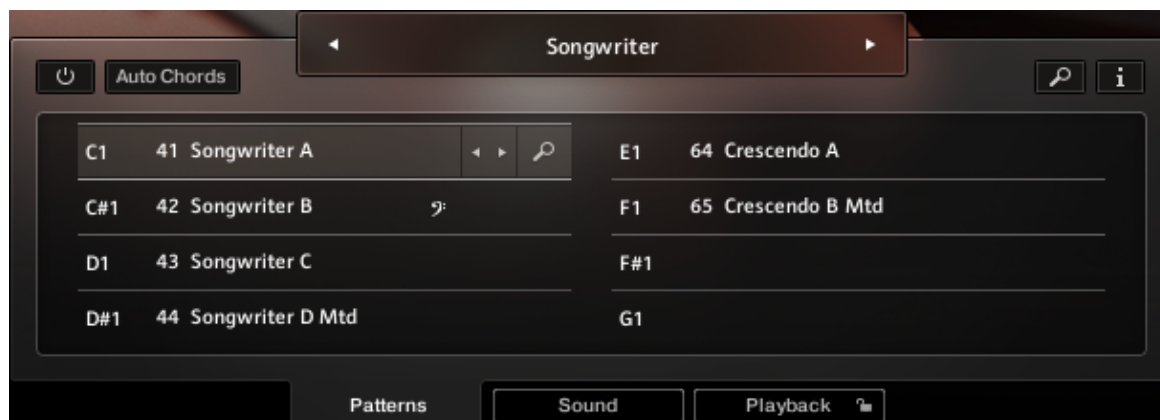
The value you send (ranging from 0 to 127) will be multiplied by 80 ticks and added as an offset to the host transport. 80 Ticks is the length of a 32th triplet, which is the greatest common divisor for all note values available in the instrument. Twelve 32th triplets equal a quarter note. Therefore, to insert half a 4/4th bar (i.e. shift the playback by two quarters, or 2×12 32th triplets), you would need to send MIDI CC#111 with value 24 etc. The following table shows typical values needed for common offsets:

Offset	CC#111 value
No offset	0
One quarter	12
Two quarters	24
Three quarters	36
Four quarters (= one 4/4 bar)	48
Five quarters	60
Six quarters	72
Seven quarters	84
Two 4/4 bars (= no offset)	96

Offset	CC#111 value
Minus one quarter	84
Minus two quarters	72
Minus three quarters	60
One eighth note	6
One triplet	4

3 The Pattern Page

Clicking on the [Patterns](#) tab (at the bottom of the instrument) will not only display the currently loaded patterns, but will also display controls that allow you to modify pattern parameters, or load different patterns or songs.



The Pattern Page

- ▶ **To select a pattern for playback**, click on the according pattern slot or press the according keyswitch on your MIDI keyboard.
- ▶ **To load a different pattern into a slot**, click on the magnifying glass icon in the current slot or double-click the slot. This will open the pattern browser (see section [↑3.2, The Pattern Browser](#)).
- ▶ **To cycle through all patterns within one slot**, click on the little left or right arrow buttons in the current slot.
- ▶ **To remove a pattern (i.e. clear a slot)**, [Alt] + click a slot.

3.1 The Song Browser

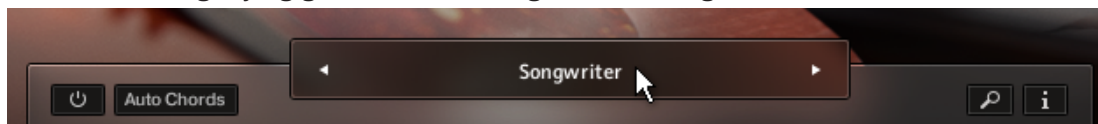
In STRUMMED ACOUSTIC 2, a *Song* is a preset that contains up to eight related patterns along with a factory sound preset (see section [↑2.6, Loading/Saving Sound Presets](#)) as well as some settings of the [Playback](#) page (see chapter [↑5, The Playback Page](#)). The patterns contained in a Song are loaded into the pattern slots.



If you want preset Songs to apply their specific sound settings, activate the [Link to Song](#) feature in the top right box (see section [↑2.6, Loading/Saving Sound Presets](#)). If you deactivate this feature, the current sound settings won't be changed on loading a Song.

To browse songs and then load a Song:

1. Click on the current song name; this will open the Song Browser. Alternatively, you can click on the magnifying glass icon to the right of the Song title.



2. Use the three attribute buttons at the top of the browser to refine the list of displayed Songs by including or excluding different signatures. To show all Songs, deselect all attribute buttons.



3. To load a Song, double-click its name or click on the tick button. (If you wish to exit the Song Browser without changing anything, click on the X button instead).

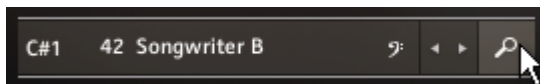


Alternatively, you can cycle through the included Songs, *without entering the Song Browser*, by clicking on the triangular arrows to the left and right of the current Song name.

3.2 The Pattern Browser

Since a preset Song may not meet your exact needs, you may wish to change a slot's pattern, or load additional patterns into specific slots.

- To open the Pattern Browser, double-click a pattern slot or click on its magnifying glass icon.



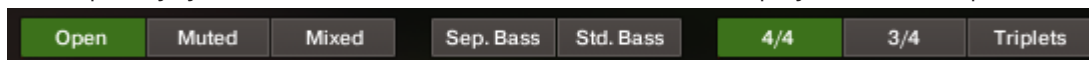
Clicking the magnifying glass icon will open the Pattern Browser

The top area of the Pattern Browser holds a series of buttons that you can use to refine your search, including a Rhythm Search strip, which is a very powerful tool to find patterns matching your custom rhythm. The body of the Pattern Browser contains a list of the all patterns matching the current search criteria. If the list is too long to fit the screen, you can scroll through the list by dragging up or down the scroll handle at the right.

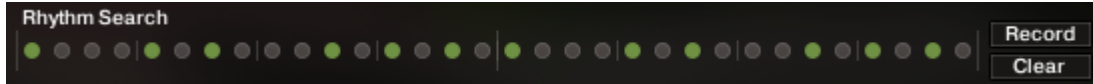


To avoid misconceptions: The Rhythm Search strip is merely a tool to find pre-recorded patterns in the pattern library. It is technically impossible to create your own patterns by entering a certain rhythm, so, despite its look, the Rhythm Search strip should not be confused with a step sequencer.

- **To search a pattern by attributes (and not by rhythm)**, make sure the [Rhythm Search](#) strip is cleared. If it's not, click the [Clear](#) button next to the strip. Then refine your search by selecting any of the attributes, such as [Separate Bass](#), [Standard Bass](#), [4/4](#) etc. If you want to bypass a category (such as [Open/Muted/Mixed](#)), deselect all attributes of that category. Consequently, you would need to deselect all attributes to display all recorded patterns.



- **To search a pattern by attributes and rhythm**, first select/deselect the desired attributes as described above. Then, enter a rhythm on a 16ths note basis into the [Rhythm Search](#) strip. With each new rhythm snippet that you enter, the pattern list will be refreshed in real-time, sorted by the similarity of the desired rhythm to the rhythm of all patterns available in the library, in descending order.



There is a powerful shortcut feature to quickly enter a repeating pattern into the Rhythm Search strip: enter the beginning of the pattern and then [Alt] + click on the position of the first repetition. Furthermore, if you [Alt] + click on the first snippet, all other snippets will be activated/deactivated.

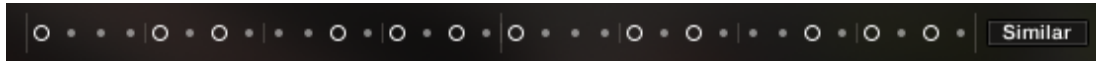
- **To 'tap in' a desired rhythm**, press the [Record](#) button; you will hear a metronome count-in. Then start playing a rhythm on your MIDI keyboard or click on the 'Tap' button. You can start any time, so you can also start with a pickup beat. After 2 bars the recording will automatically stop, and the search results will be listed.

The rhythm search algorithm is very powerful. It will compare the rhythm defined in the [Rhythm Search](#) strip not only to the rhythm of the other patterns from start, but also from any possible shifted starting position. This way, patterns with specific start shift offsets might be revealed as musically matching-patterns which otherwise would simply be overlooked. If the perfect start shift offset is different from 0, the value is appended to the pattern name. Upon loading a pattern, that offset will automatically be applied and entered into the Info Panel (see section [↑3.3, The Info Panel](#)). Also, the rhythm search algorithm will rate accents higher than non-accentuated snippets. So, if you're searching for accents following a certain rhythm, try entering the accents only.



If you cannot find a desired rhythm straight away, chances are that you can create that particular rhythm by separately searching for the first and second half of the rhythm of a desired pattern, loading the two halves into two different slots and combining them during playback. Alternatively, you can load the same pattern into two different slots and adjust the Start Shift (see section [↑3.3, The Info Panel](#)) of one of them, in order to shift accents to the desired positions.

- **To search for patterns similar to the selected one**, you would need to search for patterns with a rhythm similar to the selected pattern's rhythm. Instead of entering and copying the rhythm manually, you can simply transfer the rhythm of the selected pattern into the [Rhythm Search](#) strip by clicking on the [Similar](#) button.



This will start a search and put the selected pattern at the very top of the listed results, since that pattern matches its own rhythm a 100 percent, of course. Rhythmically similar patterns will be listed subsequently.

- **To play a preview of a pattern**, click on any of the listed patterns. This will also display the pattern's rhythm structure in the second strip. The preview playback will even sync to the host tempo and transport position, if the transport is running. However, only one selectable chord and pitch can be previewed; incoming MIDI chords will be ignored.

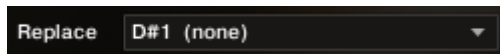


At higher tempos, the preview quality will not be as good as the full quality of the pattern actually being loaded. That's because, in order to reduce the memory footprint, a minimum set of samples are being held in the memory for preview purposes only.

- **To stop the preview playback**, simply click on the playing pattern again or, if the host transport is running, stop it.
- **To change the preview chord**, select a pitch and a chord type in the top drop-down menus. This will load new samples and remove the old ones from memory, so some loading time may be required.



1. **To load a pattern**, select one of the eight pattern slots you want to load the pattern into. The according drop-down menu is located at the top right.



2. Double-click any pattern's name or click the tick button. (If you want to cancel the process, click the X button instead.)



- The selected pattern will now be loaded into the selected slot; a previous pattern of that slot will be replaced. The pattern browser will be closed.

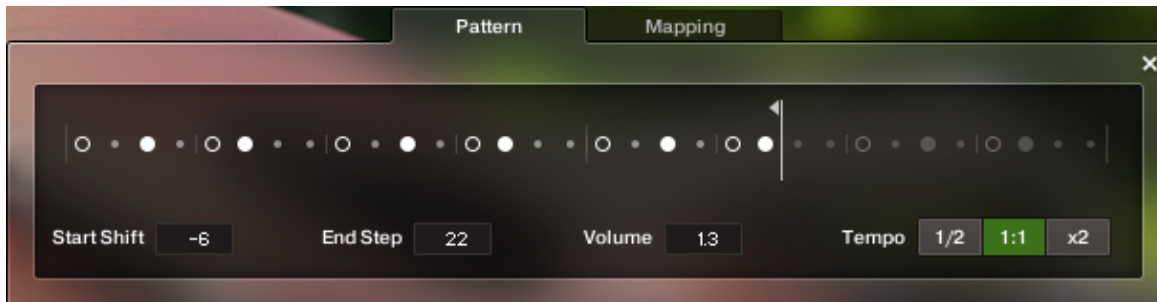
3.3 The Info Panel

With the Info Panel, you have access to various parameters that will modify the length, start position, volume or tempo of any pattern. The values of the Info Panel will always refer to the selected pattern. In other words, if you select a different pattern, the Info Panel will change its content according to the new pattern.

- **To show or hide the Info Panel**, click on the **i** button.



The **Pattern** and **Mapping** tabs are sitting at the top of the Info Panel.



The Info Panel, Pattern Tab

The Pattern Tab

- **Start Shift**: Use this value edit control to shift the selected pattern's start (entry) position. Alternatively, you can drag the pattern's rhythm display left or right.
- **End Step**: Use this value edit control to reduce the selected pattern's length so that it will loop earlier. Alternatively, you can drag the terminating flag left or right.



You can use this End Step feature very creatively. For example, you can trim a 4/4 signature pattern by eight 16th snippets, so that it will perfectly fit a 3/4 signature. You can even trim any pattern to odd signatures, such as 5/8 or 7/8. Combined with the Start Shift feature, you have very powerful tools to create whole new patterns and feels (e.g. start-shift a constant eighths pattern from on-beats to off-beats etc.). Be creative!

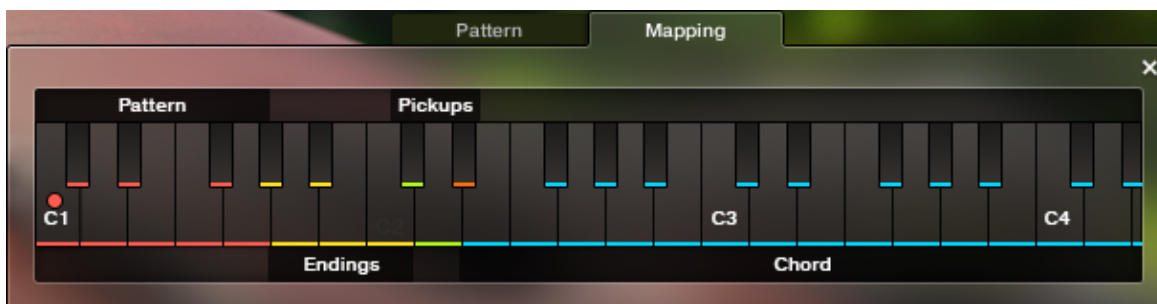
- **Volume:** Change this value to adjust the volume of the selected pattern, ranging from -12 dB up to +6 dB in 0.1 dB steps.
- **Tempo:** With the three tempo buttons, you can switch the selected pattern's tempo from normal (1:1) to half time (1/2) or double time (x2). Please note that there is also a global time scaling feature on the Playback page (see chapter [↑5, The Playback Page](#)). Its tempo factor will be multiplied by each pattern's individual tempo factor.



With slow host tempos, switching a pattern to half time may not work if the actual relative tempo falls below the limit of ca. 60 bpm.

The Mapping Tab

On the [Mapping](#) tab, you are presented with a graphical overview of the keyboard layout. The selected pattern slot is highlighted by a red dot that will change its position as you select different pattern slots. If you play an ending, a pickup sound, or the “open string” key, a colored dot on the corresponding key will light up briefly.



The Info Panel, Mapping Tab

3.4 The Auto Chords Panel

STRUMMED ACOUSTIC 2 is designed to recognize and play a great variety of chords that you can simply play on your MIDI keyboard, including major, minor, no third, diminished, augmented, half-diminished, various suspensions, options and alterations, and even some slash chords (e.g. G/C, Gmi/C, G7/C, Gmi7/C, Bb/C). You can also hold a chord or simply a 5th interval with your left hand while playing a top note melody line with your right hand. The instrument even tries to play such lines, any thirds or options in the very register you play them. So there are at least two different tonal variants of let's say a simple major or minor chord, regarding the register of the third.

However, if you're not so familiar with playing chords on a piano or keyboard, you can switch to the Auto Chords mode, which provides the most basic chords (major and minor as well as some options), auto-mapped and auto-transposed on the white keys.



The Chords Panel with the key set to D minor. Thus, the root pitch D is mapped to the original A key; all other pitches are mapped (transposed) consequently.

- **To show or hide the Auto Chords Panel**, click on the [Auto Chords](#) button.



- **To enable or disable the Auto Chords mode**, click on the power button.

- ▶ **To set the key of your song**, select the key and mode from the drop-down menus. This will transpose/shift the chord layout such that, in case of a major key, the root pitch will always be assigned to the original C key; in case of a minor key, the root pitch will always be mapped to the original A key.
- ▶ **To play chords in the Auto Chords mode**, simply click or play a single white key anywhere in the chord range (see keyboard layout of section [↑2.1, Pattern Selection and Playback](#)). This will play the chord labeled on that key. In other words, no matter which key and mode you choose, you can always play the seven diatonic pitches (plus the popular diminished seventh pitch) with the white keys from C to B (plus the B flat key, which is represented as a white key as well).
- ▶ **To add options or suspensions**, click, or play and hold, any of the labeled black keys. To remove an option or suspension, click the corresponding key again or release that key on your MIDI keyboard.
- ▶ **To exclude the Auto Chords settings from Songs or snapshots**, click the lock icon in the top left corner of the Auto Chords Panel (see section [↑2.7, Locking Parameters When Loading Snapshots or Songs](#)).



In contrast to the more powerful *standard chord mode*, where you can intentionally play thirds or options in a specific register, the *auto chords mode* does not get any register information from you simply playing the seven (plus one) white keys. Thus, a default register will be applied to the thirds and options.

4 The Sound Page

Click on the [Sound](#) Tab (at the bottom of the instrument) to display the Sound page. This page provides controls that you can use to adjust the sound of STRUMMED ACOUSTIC 2 to your needs. This page is divided into several sections, each of which is described below.



The Sound Page

- **VOICING** section: Use the [Balance](#) slider to adjust the balance between low and high voicing (the concept is explained in section [↑2.4, Blending between Low and High Voicings](#)). To reset the slider to the center position (50% low, 50% high), press and hold [Cmd] on your computer keyboard, then click the slider. Both low and high voicing can be set to either Stereo or Doubling mode by clicking the square [Stereo](#) or [Doubling](#) buttons. In Stereo

mode, you can also adjust the pan balance of the left (L) and right (R) channel. Additionally, you can flip the channels of the high voicing with the channel flip button sitting below the high voicing's panorama slider. Here are some typical use cases:

- **To achieve the very rich sound of four (!) players**, set both low and high voicing to Doubling mode, and blend them 50%. Make sure to also click the channel flip button to invert the channels of the high voicing, which will sound even fuller.
- **To create a special low/high doubling mode**, set both low and high voicing to Stereo mode, pan one voicing hard left, the other one hard right, and blend them 50%.
- **To fatten up the chorus section of a song**, record and automate the process of switching from Stereo to Doubling mode at the very beginning of the chorus section in your sequencer. You might want to automate the [Accent](#) slider as well (see section [↑2.5, Controlling the Accents of Patterns](#)).
- **To change the voicing without changing anything else**, record and automate the process of switching from 100% low to 100% high, or vice versa. To achieve the smoothest-possible transition, make sure, that the channels of the high voicing are not flipped. This way, it will sound like a single guitarist playing different voicings.
- **To add a little sheen to the (default) low voicing**, dial in just a small portion of the high voicing's additional color. Depending on your individual scenario, choose Stereo or Doubling mode for the high voicing.



The [Balance](#) slider position of the Sound page is always mirrored by the voicing slider position of the top left box (see section [↑2.4, Blending between Low and High Voicings](#)), and vice versa.

- **FRET NOISES**: Use this knob to adjust the volume of fret noises that are automatically added to the performance in between chord changes.
- **EQ**: Activate or deactivate the equalizer with its little square button. Select an EQ preset from the drop-down menu and set the EQ amount with the amount knob.



Technically speaking, the EQ amount knob scales the various frequency band's gain levels (boost or attenuation) in a constant relation to each other. Additionally, global volume compensation is applied in order to maintain the subjective volume.

- **COMP:** Activate or deactivate the compressor with its little square button. Select a compression preset from the drop-down menu and set the compression amount with the amount knob.



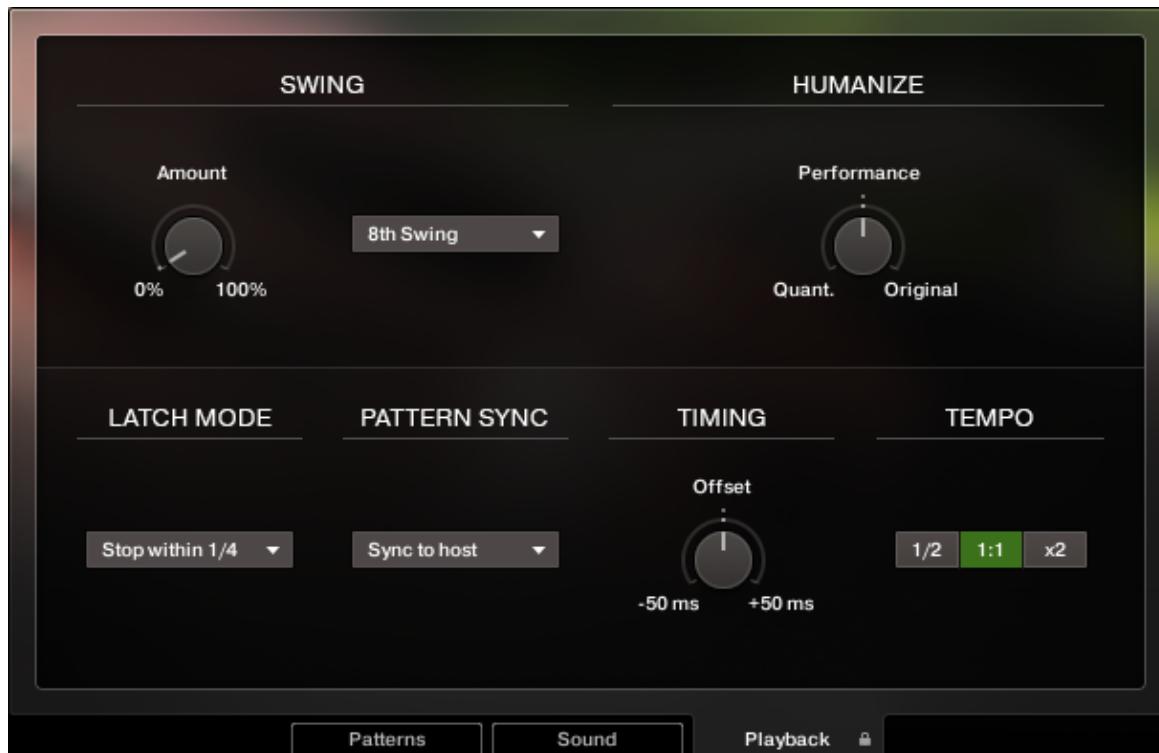
Technically speaking, the DYN amount knob is a dry/wet mix control ranging from 0%–100% wet. The average gain reduction (and according make-up gain) is mainly subject to each (non-accessible) compression preset, so that, regardless of amount and compression preset, the overall subjective volume should be roughly constant.

- **REVERB:** You can place the guitarist into several virtual rooms, each of which provides a unique sonic character. Switch the reverb on or off with its little square button. Select a reverb preset from the drop-down menu and adjust the reverb volume with the Volume knob. To cycle through the reverb presets, you can use the left and right arrow buttons left to the preset name.

5 The Playback Page

Clicking on the [Playback](#) tab (at the bottom of the instrument) will open the Playback page. This page contains settings that affect the way the patterns are played back. This page is divided into several sections, each of which is described below.

- **To exclude the Playback settings from Songs or snapshots**, click the lock icon on the [Playback](#) tab at the bottom of the instrument (see section [↑2.7, Locking Parameters When Loading Snapshots or Songs](#)).



The Playback Page

- **SWING** section: Use the **Amount** knob to set the amount of swing added to each pattern, either on a 8th note or a 16th note basis. A setting of 0% would represent the original state of all patterns.



If the **Amount** knob doesn't affect the playback, it is very likely that either a triplet pattern is selected, or the timing basis has to be changed from 8th to 16th notes.

- **HUMANIZE** section: Use the **Performance** knob to set the amount of quantization added to all patterns. At the right position, the original performance (with some human imperfections) will be played unaltered. At the left position, the performance will be fully quantized.
- **LATCH MODE** section: Use the drop-down menu to select one of two different modes regarding the continuation of the pattern playback.
 - *Keep playing*: Pattern playback will continue even if you release the keys. As soon as you play a new chord, playback will smoothly change to the new chord. To stop the playback, trigger an ending. The advantage of this mode is that the playback will not be interrupted as you're preparing for playing a new chord. You don't need to play the chords legato (which wouldn't be so easy for most non-pianists) to actually achieve a legato and musical performance. This mode is also referred to as *Latch mode*.
 - *Stop within...*: Pattern playback will stop after you've released the keys. The advantage of this mode is that you don't need to trigger an ending to stop the playback. Additionally, you can press the sustain pedal (MIDI CC#64) upon changing chords in order to temporarily switch to the Latch mode.
- **PATTERN SYNC** section: Use the drop-down menu to select one of two available sync modes.
 - *Sync to host*: With this mode selected, pattern playback will start in sync with your host sequencer. As STRUMMED ACOUSTIC 2 is based on two-bar patterns, make sure to start your song on bar one or any other uneven bar number (e.g. bar 3, bar 5, bar 17).
 - *Start on key*: With this mode selected, pattern playback will start from beginning as soon as the first chord is being played, ignoring the current host playback position. As long as the playback does not get interrupted (see description of the **LATCH MODE** section above), this shifted performance will be retained even if you subsequently play chords.

- **TIMING** section: Use the **Offset** knob to control the amount of positive or negative lag added to the playback. Positive values, for example, will result in a laid back feel whereas negative values will result in a hasty performance.
- **TEMPO** section: Here, you can select between three tempo ratios **1/2** (half time), **1:1** (normal time), or **×2** (double time), which globally affect the pattern playback speed relative to the host tempo. Please note that there is also a local time scaling feature available for each pattern (see section [↑3.3, The Info Panel](#)). The individual patterns' tempo factors will each be multiplied by the global tempo factor.



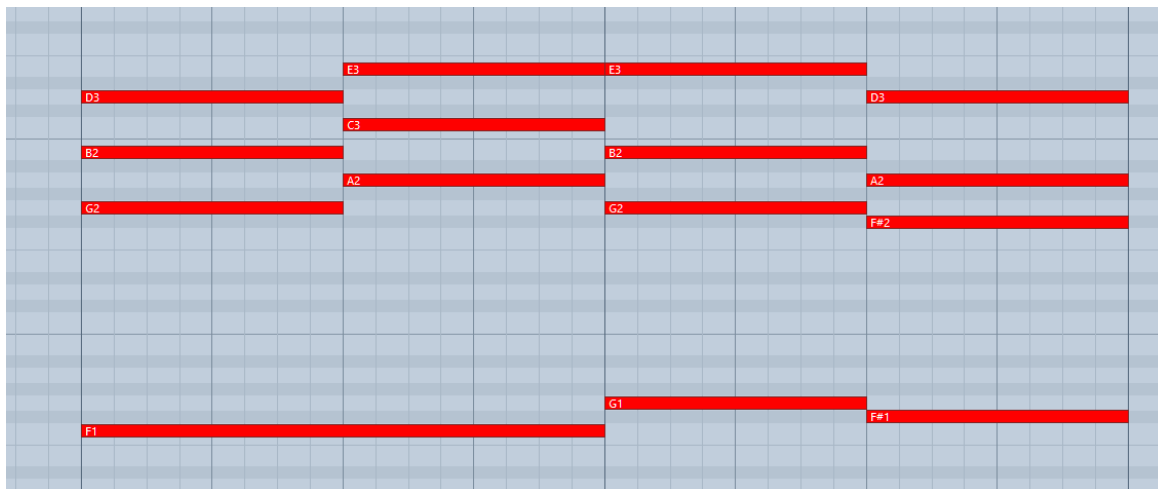
With slow host tempos, switching the global tempo to half time may not work if the actual relative tempo falls below the limit of ca. 60 bpm.

6 Tips and Tricks

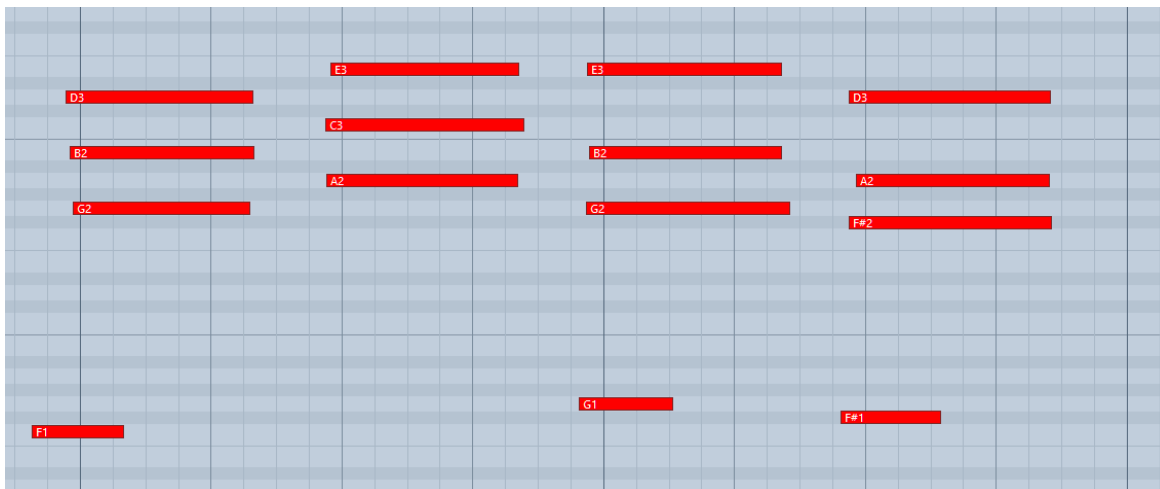
Last, but not least, the developers would like to share a couple of tips to help you get the most out of STRUMMED ACOUSTIC 2:

Create Natural Transitions between Chords

To create realistic sounding transitions between chords, do not quantize your keyboard performance. Instead, make sure that all chord and pattern changes are played approximately one 32nd note early. This way, STRUMMED ACOUSTIC 2 can anticipate that a chord change or pattern change is about to take place, and perform the transitions between patterns and chords in the most natural way. Depending on the chord progression, an appropriate fret noise is added automatically. These natural transitions would be impossible if you quantized your MIDI data. Don't worry about the timing – triggering the patterns before the beat will not make the performance sound out of time, as the timing is bound to the internal metronome of your sequencer. Also make sure that chords do not overlap, because an overlap would technically mean that two chords are played at the same point in time.



Bad: Quantized MIDI data will cause the chord changes to happen too late for the fret noises to be played back; this will not create realistic transitions.



Good: MIDI notes placed ahead of the quantized position will result in realistic sounding transitions. Note that the key-switches are also triggered slightly before the actual chords.

Make Transitions Even More Realistic with Open Strings

Press the D# key just below the blue area of the on-screen keyboard. You will hear the sound of a guitarist playing open strings only (E-A-D-G-B-E). Here's the idea behind it: We observed that, depending on musical style and pattern, guitarists play open strings on the last strum before a chord change, e.g. they play A minor, take the fingers off the fretboard and reposition them to play, let's say, F major. In the short moment where the guitarist's left hand does not touch the strings, their right hand keeps strumming in time and thereby plays one open string strum in between the two chords. To simulate this effect, hit the Open String key on your keyboard slightly before the strum you'd like to replace with the open string sound. The engine will automatically replace the following strum, and the open strings will sound at the exact position where the regular strum would have taken place. Again, make sure to hit this key a little bit before the beat to allow for a proper transition. The Open String key is velocity sensitive, so you can fine-tune the velocity of your transition.

Combine Patterns Creatively

We spent a lot of time to make transitions between patterns and chords as smooth and natural as possible. Therefore, if you switch between patterns that have a similar playing style but different rhythms, the transitions will very likely sound as smooth as if the resulting rhythm would

have actually been performed this way. So instead of sticking to a single repetitive pattern for a long time, you can enhance realism by switching back and forth between patterns to add variations here and there. In most cases, adding minor rhythmical changes at the end of the second bar does the trick.

Create Custom Groove Variations

If you'd like to add variations to spice up a pattern using the technique described above, you might find yourself in a situation where the beginning of a pattern contains the bit of rhythmical variation you'd like to use at the end of another pattern. To move the variation into place, click the **i** button to open the info pane and shift the pattern to the desired position. Another way to get there is to use the “End Step” feature: Shorten the pattern to e.g. 4 steps (= one quarter note). Although the resulting pattern will be very short and thus will sound pretty repetitive in itself, it will contain a predictable strumming pattern that you can switch to anytime to add a variation to another pattern.

Play Separate Strums

If you need individual arpeggiated or strummed chords in an arrangement which are not part of a rhythmical pattern, you can use the yellow “ending keys” (G#1 .. B1) for that purpose. As these keys depend on the last played chord, you need to make sure the desired chord has been played before playing an ending key. Normally, pressing a chord automatically starts the playback of the selected pattern. To change the chord “silently”, i.e. without triggering the pattern playback, select an empty pattern slot via keyswitch. Then play the desired chord and trigger the yellow ending key afterwards. If no empty pattern slot is available, you can also stay on a loaded pattern and play the desired chord immediately before triggering the yellow key. This will leave the actual pattern inaudible but still creates the desired chord change. Pickups and endings are velocity sensitive, so you can adjust their intensity individually.

Optimize the First Strum of a Pattern

You can spice up a performance by replacing the very first strum of a pattern loop with one of the yellow “ending keys.” This way, you can start off with a nice arpeggio or an accent on the first downbeat. Then, trigger the following pattern and chord after that first beat. The opening strum will seamlessly transition into the pattern loop. This works best if you are performing to a click track within your sequencer.

Use Authentic Humanization

The Humanize knob does not add random offsets to create some kind of fake realism. Instead, it recreates the exact timing of the guitarist as he recorded all the patterns in the studio. That means, although the differences may be subtle, the “Original” setting feels much more like a real guitarist, because it delivers the actual timing of a real guitarist. To our ears, adding a shuffle value of around 5-15% creates very appealing results.

Use the Accent Slider as a “Drama Controller”

When moving towards a quiet passage in your song, move the accent slider to the left. As you approach the chorus, slowly move it to the right. If applied correctly, this makes the virtual guitarist play towards a certain musical event, e.g. the chorus or a break. You can also use the pitch wheel to smoothen the transition between patterns which are played at different volumes to a certain degree.

Diversify Your Chord Voicings

Do not only mix the low and high voicing to create an “extra big” performance, but also switch back and forth between 100% high voicing and 100% low voicing to emulate a single guitarist playing in different positions. Furthermore, thirds, sevenths and other options sound in the very register that you play on your keyboard. Thus, if you combine the modulation wheel with different keyboard voicings, you get a greater variety of chords. Continuously moving the modulation wheel can be used to simulate the guitarist hitting more of the higher or more of the lower strings at times while staying in the same voicing with his left hand. The continuous variation of the modulation wheel and pitch wheel controls helps a lot to achieve a more natural sounding performance.

Use Two Session Guitarist Instruments Simultaneously

Instead of using just one single pattern at a time, try the following: Open two instances of STRUMMED ACOUSTIC 2. While Instance one plays the regular chord progression of the song in the low voicing panned to the right, instance two plays only an empty fifth chord as a pedal point in high voicing panned to the left. Combining two different guitars and/or patterns in this manner can really help to open up your arrangement.

7 Credits

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