STRUMMAKER IV Acoustic

indiginus

Installation:

Please follow the directions in the "Installation" PDF included with the download.

SM4 Acoustic

Acoustic Guitar

Thank-you for your purchase of Indiginus' StrumMaker IV Acoustic sample library!

StrumMaker IV Acoustic contains 2 instruments- **StrumMaker IV Acoustic** for playing and creating strumming patterns and **Acoustic Guitar**, which is a muti-sampled guitar with articulations that can be controlled by velocity or key switches.

Let's look **StrumMaker IV Acoustic** first.

The Control Panel is above the Fretboard, and has 2 main functions. On the left are the controls for the strumming patterns, and on the right are the controls for selecting guitar chords.

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Active keyboard zones and key switches.

There are 3 playing zones on the keyboard:

RED- The red zone (the octave of C1 to B1) is used for triggering the automated strumming patterns.
If you want a G chord, you simply play a G note in this range. Then, if you want a different chord
variation, you use the Variation knob on the right side of the Control Panel to choose it.
So if you play a G note, then choose **Min 7th** on the Variation knob, you will hear a G Minor 7th
chord each time you play a G note on the keyboard. That's it! You can also choose the chord
variation with key switches, but we're getting ahead of ourselves.

GREEN- Exactly the same function as the RED zone, only here you play single chord downstrokes.
You can play manual strumming patterns by alternating between the downstrokes in this
octave and the upstrokes in the BLUE zone just above it.
Also, playing a chord here will stop any pattern that was triggered in the RED zone. This is a
great way to end a phrase.

BLUE- Exactly like the GREEN zone only just the chord upstrokes.

Keyswitches and More Keyswitches

Keyswitches let you control many functions from your midi keyboard.
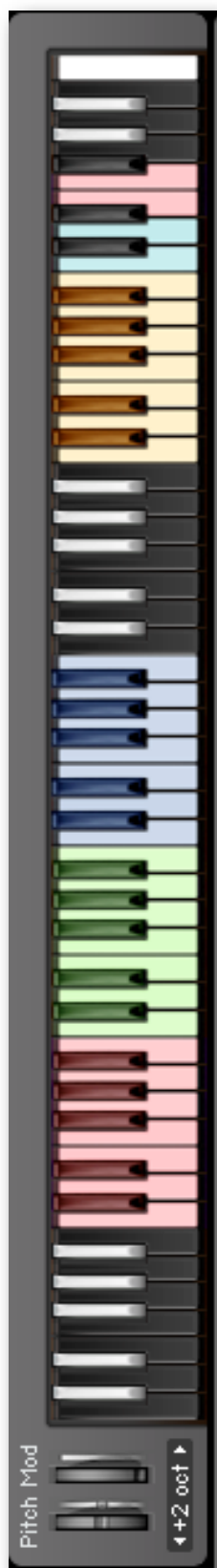
Step Resolution (Black, G6-B6)

Latch Off (F6)
Latch On (E6)
Muted Upstroke (D6)
Muted Downstroke (C6)

Pattern Change (Yellow, C5-B5)
Lets you select from the 12 strum patterns.

Capo (Black, C4-B4) These
key switches control the Capo,
or transpose function. Just hit
these keys and watch the capo
move up the neck!

Chord Variation (Black, C0-B0) These key switches remotely
control the **Variation Knob,** so you can
change from a major to a minor or diminished or whatever, so
You have instant access to any of 144 chords at any moment
in your sequence.

C 0 = Major
C# 0 = Minor
D 0 = 7th
D# 0 = Minor 7th
E 0 = Major 7th
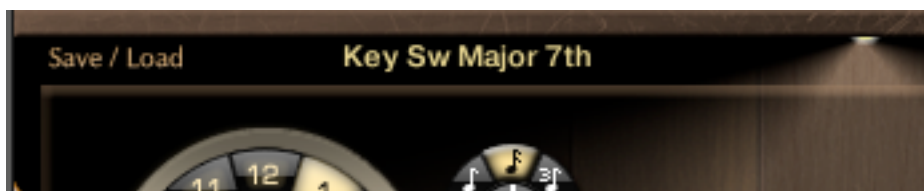F 0 = Diminished
F# 0 =Augmented
G 0 = Sus 4
G# 0 = Bar
A 0 = Power Chord 1
A# 0 = Power Chord 2
B 0 = User Chord (actually, all chords in SM4 can be
customized)

Pitch Mod

+2 oct

The Key Switch Display

There are a lot of key switches to keep track of here, so we've included the **Key Switch Display** to help you keep track of what is going on. Whenever you hit a key switch, the display will show its function, and new key switch commands will replace earlier ones.

Using Variation Key Switches

In many cases, when you are using only a few chords, you may not need to use the Variation key switches since SM4 remembers which Variation each root note is set to. Pressing a Variation key switch will affect the *next* chord to be played, so if you want an Am, you hit the minor key switch (C#0) *before* you play the A root note. If you are playing another variation of the same chord, like going from D major to D minor, you would play D0 (major key switch), then the root note of D, then D#0 (minor key switch), and then play the D root note again to hear the minor. So, let's say you want to play the chord sequence G, Em, C maj7, D sus4, and finally D major:

Notes played   G   Em   C maj7   Dsus   D

Key switches   C0 (major KS)   C#0(minor KS)   E0(maj7 KS)   G0(sus 4 KS)   C0(major KS)

Once again, you don't need a key switch for every chord change, so if the G is major throughout your sequence don't worry about using key switches.

The Fretboard

The Fretboard is where the chords are visually displayed, but more importantly, it is where you can create any chord you like! Just click anywhere on a string in to place a little white oval, which designates where a finger would depress. Use the small white dots to the right (on the headstock) to turn a string on or off.

Any changes to a chord will be remembered (as long as you save your edited instrument or project) until you change it again or hit the **Reset Chord** button, which puts it back to the default chord.

User Chords

As I said earlier, all chords in SM4 are editable, so you could actually have 144 user created chords available. However, we have reserved the User location in the Variation Knob specifically for that purpose.

The **Copy To** drop-down menu allows you to save the current chord to any User location.

The **Mutes** button affects only the single chord hits. It triggers a muted strum sound when you play at lower velocities for a more aggressive sound.

Strum Speed Hits controls the speed of the pick across the strings for the single chord upstrokes and downstrokes. The higher this setting, the looser the chords feel. Keep in mind that the strum speed also reacts to key velocity, so the harder you play the quicker the strums play.

The Note Guide button places the note names on the Fretboard for convenience. The open string note names are not labeled.

The Midi Note Number button places the midi note numbers on the Fretboard. This was mainly used for programming the default chords, but we've left it here anyway.

The Variation Knob

Let's say you want to play a G major chord. Just play a single G note in one of the 3 active octaves on the keyboard (see page 2), then choose "Maj" on the Variation knob. Now, every time you play a G note you'll get a G major. If you want an E diminished chord, hit a E note and choose "Dim" on the Variation knob.
You can change the Variation knob with key switches (C0 - B0) as well.

What if you want 2 variations of the same chord, like a D major and a D suspended?
You could just use key switches to change the variation while you're playing the trigger chords, but that can be a lot to think about while you're playing. Another way is to assign the D suspended to an adjacent key, like D#. Here's how:

1. Play a D note.

2. Choose "Sus" on the Variation knob.

3. Use the "Copy To" drop-down menu and choose "D# User"

4. Set your D chord back to "Maj" on the Variation knob.

5. Play a D# note.

6. Choose "User" on the Variation knob (where you just copied the D suspended chord).

Now when you play a D note you get D major, and when you play a D# note you get your D suspended.

Selecting a Guitar

A drop-down menu lets you select a guitar to be strummed, Acoustic 1 or Acoustic 1 12-String. If you also own Acoustic Guitar Collection and are using the SM4 Acoustic AGC instrument, you will be able to choose from AGC's guitars.
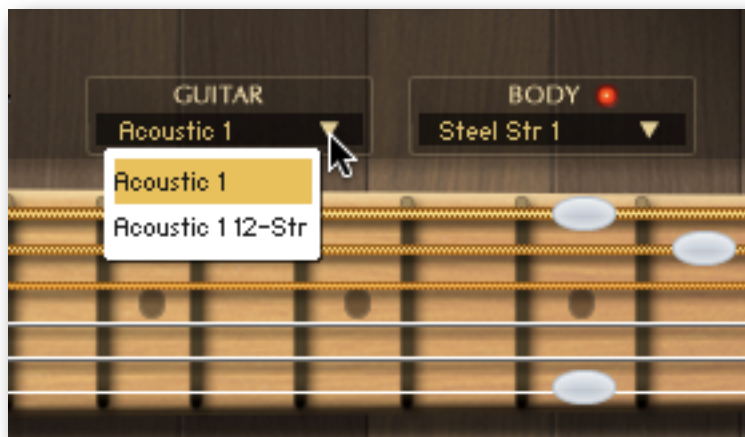
Selecting a Body Resonance

A drop-down menu lets you select a guitar body resonance.
Since SM4 uses scripting to create chords by playing each individual string's note, it has been hard to duplicate the sound of the *whole chord* resonating in the guitar. One solution is to use impulse responses of guitar bodies in which our virtual chords can resonate. We've included several for you to choose from, including 2 steel string guitars (with 2 mic configurations each), a classical nylon string guitar (also with 2 mic configurations), a mandolin, and a dulcimer. We've also included two choices with the strings left open instead of damped. To bypass the Body Resonance turn off the red led.

SM4's Body Resonance feature is still under development, but has been included since it seems to make such a dramatic improvement in overall sound, even at this stage. There are low-midrange frequency spikes that occur in some of the IR samples (IMO the best sounding ones otherwise), so we have included a simple EQ to control this. The EQ is applied to the guitar *before* it is sent to the convolution effect containing the body IR.
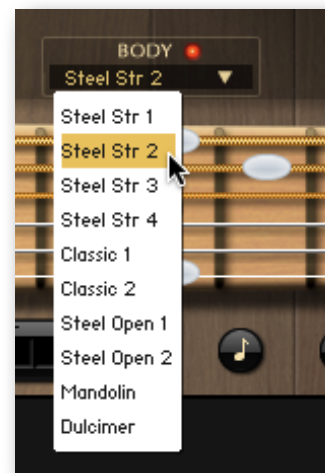
Editing the Body Resonance

The **Body Edit** button will display the Body Resonance edit controls.

Here you can control the amount and tone of the body resonance. Each "Body" has it's own level and EQ settings, and your changes are automatically saved. The **Reset** button will recall the default setting for each Body.

MIX Controls the amount of Body Resonance (the send level to the convolution effect containing the body IR).

Mid Cut Allows you to reduce low-midrange muddiness that can occur. This slider determines the depth of the EQ notch.

Frequency Controls the center frequency of the notch.

Band Width Controls the width of the EQ notch.

Pick (drop-down menu) Choose from some impulse responses of pick sounds.

Pick Vol (volume) Controls the amount of pick IR sound. A little goes a long way here.

The Capo

The Capo knob moves the capo up as far as the 12th fret, and transposes your chord.
This is especially useful for key changes, where you can use a key switch (C4 - B4) in your sequence to change to a new key easily.

Keep in mind that the trigger key will no longer match the chord that is playing when using the capo. For instance, in the above illustration the capo is on the 3rd fret and a C note is being played on the keyboard. What you actually hear is an Eb/D# major chord, which is also what is displayed above the Variation knob. So if you use the capo to transpose a pattern during a composition, don't transpose the actual midi notes that are triggering the chords- just move the capo.
It's just like using a real capo. Or like transposing your keyboard where the chord you're playing is different than the chord you're hearing.

The Strum Sequencer Controls

On the left are the basic controls for the Strum Sequencer.

We can call this thing the "Pattern Orb", the "Wheel 'O Sequences" or anything else you can come up with.

Whatever you call it, it has 12 buttons around the edge that select 12 editable strumming patterns. The **Temp** button contains an extra pattern location that you can use for experimenting.

Latch allows the strumming pattern to play continuously, even after you release the key that triggered the pattern. This way, the pattern continues and you can change the chords without interrupting the pattern. Playing a single downstroke (octave C2-B2) or a single upstroke (octave C3-B3) will stop the pattern.

Edit replaces the lovely logo in the middle of the control panel with the pattern editor. More on this later.

The **Step Resolution** dial determines the note value for the steps in the sequencer in relation to Kontakt's master tempo (or the host tempo). A setting of 16th notes will move twice as fast as 8th notes, which are twice as fast as quarter notes.

The **Steps** dial determines the number of steps in the pattern, from 1 to 16. Need more than 16 steps? Not to worry- you can chain up to eight of them together. More on this later, too.

Strum Speed controls the speed of the pick over the strings for the Strum Sequencer. The higher this fader is set, the looser the strums sound.

Swing % Creates a swing feel in any pattern. When the slider is all the way to the right, every other pattern step is moved from halfway between adjacent steps to 2/3 of the way. The Swing setting is saved with pattern settings.

The Pattern Edit Controls

Edit   Hit the "Edit" button in the "Orb", and you'll see these controls:

1   **Pattern Length Indicator** is controlled by the **Steps** dial, and is there to give a visual indication of the pattern's length.

2   **Pattern Running Lights.**

3   **Velocity Faders** control the power of the strum on each step of the pattern. The lower the fader, the lower the strum strength.

4   The **Strum Direction Arrows** let you choose between a downstroke (arrow pointing down), or an upstroke (arrow pointing up).

5   **Mute Buttons.** When on, all sustaining notes are stopped at that step, and a muted strum is triggered

6   **Strength** Lowering the value on this slider will decrease the overall strum strength of the Pattern. By controlling this slider with an external controller, like your keyboard's Mod Wheel, you can create a much more dynamic strumming track. Just right-click on the Strength slider, select *Learn MIDI CC# Automation,* and move your Mod Wheel.

To make this slider global for all Patterns (not recalled with each individual Pattern), click on the Indiginus logo in the lower right of the instrument, and turn off **Recall_Strength_with_Pattern_Mem**.

7   **Save To** drop-down menu allows you to save your changes to any of the 12 pattern locations.

Pattern Chain

You can create a repeating chain of up to 8 patterns.

Chain on/off   Number of elements in chain.   Pattern numbers.
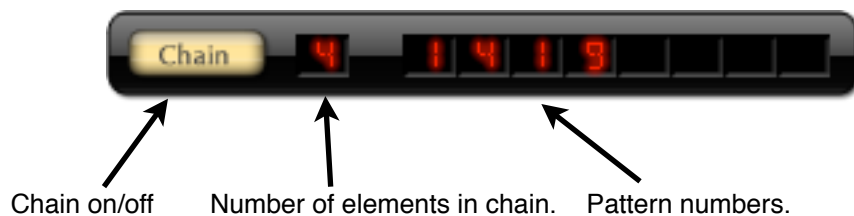
Important: Click and drag mouse UP to change
Chain settings, not down as you might expect.

Using the Strum Sequencer in a DAW

The Strum Sequencer plays every note in the chord, one after the other. This takes a certain amount of time. So, if you trigger a new chord while the script is in the process of completing the previous chord something's gotta give! Most likely the script will cut off the old chord, or may not play the new chord completely. Here are some hints for using SM4 in your sequence:

1. Give yourself one measure of pre-roll at the beginning.

2. If you are using the Latch function, play new chords slightly ahead of time.

3. If there seems to be sync trouble, turn down the Strum Speed.

Save/Load menu

Clicking on **Save/Load** shows the disk save and load controls.

Saving and loading data

You can save patterns and chord banks to disk. Selecting from either the Save Pattern or Save Chords menus will bring up a standard dialog box allowing you to choose a location to save the data. You can save 1 Pattern at a time or a complete chord bank (all G chords, for instance).
With the Load menus you can load this data back into the same location, which is good for loading your patterns and custom chords from one project to another, or re-loading your data after an SM4 update.

You cannot load data from one Pattern location into another. This is a limitation of Kontakt scripting at this time. Of course, you can use the Save To button in the Pattern edit mode to do that.
To hide the Save/Load controls, just click on **Save/Load** again.

Additional Controls

Clicking on the Indiginus Logo in the lower right corner will bring up additional controls, which will probably accumulate as time goes by. Click on the logo once to display this window:


MuteVel Controls the upper velocity of the mutes layer on the manual chords. Sort of. There is some overlap of zones.

Lock_Var_KS or "Lock Variation Key Switches". A customer request to prohibit accidentally changing chord variations.

Recall_Strength_with Pattern_Mem When highlighted, the value of the **Strength** slider will be recalled with each individual Pattern. When off, the **Strength** slider will globally affect all Patterns.

Clicking on the logo again will show this:
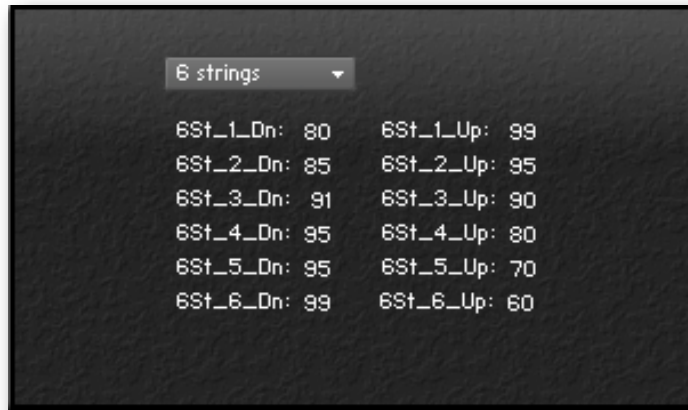
Warning! Changing these setting will affect the way SM4 strums it's chords, and should not be adjusted unless you have backed up your SM4 download.

These controls were used during programming of SM4, and determine the velocities played on each "string" during a single downstroke (left column) and up stroke (right column). Each number is a percentage, with 100 being 100% of full velocity, or 127. The actual velocities played will be affected by key velocities in the case of manually played chords, or velocity faders in the Pattern editor. The drop down menu selects the settings for chords of 6 strings down to 1 string. The left column (downstroke) starts with the first string played by the pick, which in the case of a 6-string chord would be the low E string. The right column (upstroke) starts with the first string played by the pick on the upstroke, which would be the HIGH E string.

Click on the Indiginus logo agin to hide this window,

Acoustic Guitar

Acoustic Guitar allows you to create realistic flat picking tracks using 6 layers that are controllable by velocity, key-switches, or both. Everything is on one panel for easy access.

1 **Preset Selection**

> Here you'll find some preset configurations. There are no on-board user memory presets, since you can easily save your edited instrument under a new name, and all your settings will be saved. Also, if you're working from within a DAW, your changes will be saved with your project.

2 **Four buttons that activate special features:**

> **VIB** adds an automatic vibrato that frees up your left hand for more important things- like key-switches and drinking coffee.

> **12 STR** turns the guitar into a wide, jangly, 12-string!

> **RR** Short for "Round Robin", which automatically switches between down and up picked samples.

> **AMP** turns on amplifier and cabinet effects. There are no controls available for the effects, but you can use Kontakt's Wrench and edit all you like!

3 **The "Tweak" Panel**

> Here you can edit the volume level, low velocity limit, high velocity limit, and key-switch for each layer. There are also controls for the Release samples and Finger Noise samples. Setting these to 0 turns them off.

Extra Controls for Hammer-Ons

Hammer-ons are notes that are played by depressing a finger on a string that is already sounding, that is, without picking the string again. There are probably several ways of implementing Hammer-Ons in a sample library, and we've chosen a method that seems to make sense for using them while playing a picking pattern.

Let's say you want to have a D note play and a Hammer-On to the E above. You would play the 'E' target note, just like if you were using the Up Slides Articulation.

The **Key** selector will set the Hammer-Ons to whole steps or half steps depending on the key you choose and what step in that key's scale you are playing. You can also choose All Whole Steps or All Half Steps.

Note Value allows lets you choose how long the first note plays before the Hammer-On note plays in relation to Kontakt's master tempo or the host tempo.