



Shreddage 3 Stratus FREE Product Manual

An Impact Soundworks Instrument for Kontakt Player 5.7+

Introduction

Our goal with this library is to give ALL Kontakt users an excellent, realistic, and FREE virtual guitar instrument with all our latest technology and *no* crippling limitations. **Shreddage 3 Stratus FREE** includes some of the most useful sounds from the full version, as well as tons of editing features, TACT 2.0, and the Console mixer, giving you all the tools you need to write and produce electric guitar parts.

Just like the full version, you get our updated **fretting & voicing engine** with multiple algorithms and styles to choose from. You can create **custom tones** with 30+ included FX modules and cabinet IRs. With this instrument, you can write and produce lead, rhythm, and strummed parts, all in a single Kontakt instance.

In short, if you own Kontakt, this is **the most realistic and flexible** electric guitar library you can possibly get for free. We know you'll love it, too!

NOTE: Red text highlights features or content available in the FULL version of Shreddage 3 Stratus!

Installation

1. Install the **Pulse** application if you don't already have it. **Pulse** is a cross-platformer desktop app that lets you download and install your libraries with blazing speed!

<https://pulsedownloader.com/>

2. Once **Pulse** is installed, open it and enter your **Shreddage 3 Stratus FREE** download code. Follow the instructions to download and install the library.

3. Finally, load the included **Shreddage 3 Stratus FREE** NKI in Kontakt. No activation is needed, as this is not a Kontakt Player instrument.

Shreddage 3 Performance Engine

Shreddage 3 features a wide range of options to customize how the virtual guitarist performs the MIDI notes sent to it. Though the default patches and snapshots are sufficient for almost all styles, these options let you fully customize fret choice, hand movement, and string selection.

When a MIDI note is received, Shreddage 3 will evaluate a number of factors to determine the best string & fret to place that note. These factors, which are weighted differently depending on your performance settings, include things like:

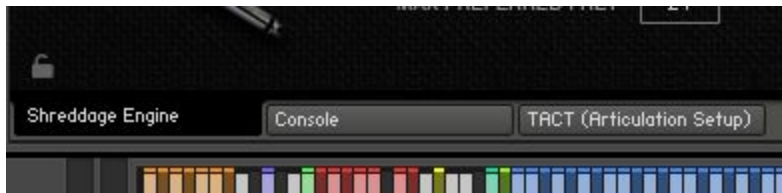
- What other strings are being held at the same time
- Whether the new note is played legato or not (and if so, the legato settings)
- Min/max fret preference
- The **fret position** of the virtual hand

The last point is key: Shreddage 3 uses a virtual 'hand' to guide fret & string selection. This generally means if you are playing on the lower frets, new notes will be *also* be placed on lower frets. If you are playing high up on the neck, new notes will *also* end up in that range.

Snapshots and Script Tabs

Shreddage 3 uses Kontakt's native "**snapshots**" feature to handle various types of presets. We've extended this feature allowing you to save and load **specific types of snapshots** without overwriting your entire patch.

To support this, Shreddage 3 uses **three** separate scripts for instrument editing, mixing & effects, and articulation mapping.



Each of these tabs can save or load its data **independently!** For example, you can load a guitar tone from **Console** without affecting your mapping, or load a specific performance preset without affecting your tone.

At the bottom of each tab's UI, you'll see two icons in the lower left and lower right: a **Lock**, and a **Camera**.



When the **Lock** icon is **enabled** (white), the contents of that tab **will not be overwritten** when you **load** a new Snapshot.

When the **Camera** icon is **enabled** (white), the contents of that tab will be **saved** when you save a snapshot.

Snapshots in the factory library are split into three categories: Performance (Shreddage Engine), Tone (Console), and Mapping (TACT). Each snapshot has been saved with data from one specific tab. However, you can save *your own* snapshots using whatever combination of tabs you'd like. Make sure to check your Lock/Camera settings when saving and loading.

NKS Functionality in Shreddage 3 Stratus FREE

All included snapshots will only affect the **Console** tab of the library. Your settings in other tabs like the articulation mapping will be retained as you browse tones.

If you only wish to reset certain tabs to default settings, use the **Lock icons** in the lower-left corner to **LOCK** any tabs you don't want to reset. **UNLOCK** tabs you do want to reset. Then, load **-INIT S3 Stratus-**.

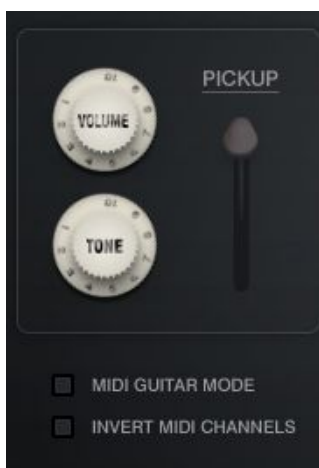
Shreddage 3 Interface

IMPORTANT: Virtually every knob on the interface can be MIDI learned! Simply right click and then move the desired MIDI CC to create a link.

Also, you can **hover** over any control to see help text at the bottom of the Kontakt UI. Try it!



Tone Controls & MIDI Input



Volume: Affects the overall gain of the instrument, pre-FX.

Tone: Controls a gentle pre-FX lowpass filter on the entire instrument. Lower values result in a darker tone.

Pickup Switch: Selects between three pickups: neck, middle, bridge. Note that on the **Console** script tab you can create a custom pickup blend.

MIDI Guitar Mode: When enabled, the patch is enabled for use with MIDI guitars or pickups that send MIDI messages on different channels for each string of the guitar. **You MUST set the patch to OMNI MIDI input in Kontakt for this to work!** The lowest string corresponds to MIDI channel 6, while the highest string corresponds to MIDI channel 1.

Invert MIDI Channels: When MIDI Guitar Mode is enabled, this simply flips the expected channel input: the *lowest* string corresponds to MIDI channel 1, while the *highest* matches with MIDI channel 6. You may need to do this depending on the configuration of your MIDI guitar / pickups.

Main Page Controls



Bite: Applies an EQ to all pickups pre-FX, adding more brightness and removing some low-mid ‘body’ from the sound. The resulting tone becomes more and more aggressive as the knob is increased.

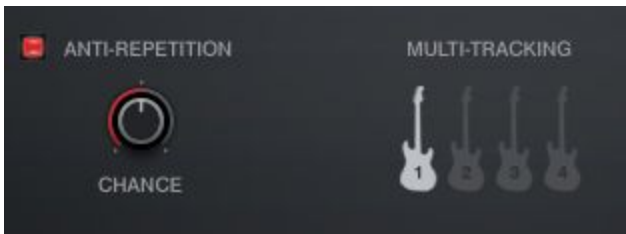
Transpose: Shifts all MIDI input up to +/- 12 semitones.

Global Offset: Controls the sample playback offset for all groups. Note that all samples were edited to preserve a certain amount of pick and pre-pick sound, so while increasing Offset makes the instrument more responsive, it does decrease the amount of realistic noise in each sample. This offset value is mixed with other offsets for specific articulations and strokes.

Pitch Bend Range: Changes the maximum range for the MIDI pitch bend message, defaulting to +/- 2 semitones. This means that when your pitch controller (hardware, or in automation) is at maximum or minimum values, the instrument will be shifted down or up 2 semitones.

Unison Bend: When moving this knob above minimum value, the LOWEST held note will be pitch bent, as long as the lowest note is no more than a perfect fourth away from the higher note.

Vibrato Amount: Introduces pitch modulation (vibrato) into the sample. The type of vibrato (emulated vs. sampled) can be controlled on the **Articulations** page.



Anti-Repetition On/Off: When enabled, the instrument will randomly use neighboring samples during playback to create more variation.

(Anti-Repetition) Chance: Sets the probability that neighboring samples will be used during playback, when Anti-Repetition is enabled.

Multi-Tracking: Sets which virtual guitar track(s) should be used. Each virtual guitar uses a different sequence of samples during playback. For example, if guitars 1 & 2 are enabled, two unique sets of samples will be played back with extra stereo panning.

If you would prefer to use multiple NKIs for double/quad-tracking (in order to use more channels in your host), you can always enable a single guitar at a time for each NKI. You can do this by enabling the guitar of choice (e.g. Guitar 2) and then disabling any other guitars in that NKI.

Note: It is important, if using multiple NKIs for multi-tracking, to set the anti-repetition parameters to be identical in each instance. Otherwise, phasing will occur as different NKIs may trigger the same sample in differing track numbers.



Poly Input Latency: When this knob is above 0 ms, a small amount of latency (controlled by the knob) is introduced before sample playback. The S3 Engine will capture any notes played within that latency window and create more realistic voicing for playback. Think of this as a “**Lookahead**” that results in better performances when playing chords or other polyphonic parts.

The latency applies to the following: playable range guitar notes when strum mode is OFF, thrash notes, slide notes, full strums, partial strums, and individual string picks. In other words, any triggers that play actual sounds.

The latency does not apply to the following: playable range guitar notes when strum mode is ON (to set the voicing), midi CC changes, midi pitch bends, TACT keyswitches, Shreddage 3 custom keyswitches, strum mode keyswitches.

NOTE I: It is recommended that guitar parts that include fast shredding and other forms of **fast monophonic lead** playing have the **latency set very low or at 0 ms!** The polyphonic fretting placement will **interfere** with the natural fretting of the algorithms and fast passages will quickly devolve into fretting placements that jump around the fretboard, which is anatomically impossible and creates an unnatural tone.

For reference, 16th notes at 120BPM are **125 ms** apart. Playing passages at, or faster than, 120 BPM 16th notes at 125 ms latency will result in malfunctioning fretting selection.

NOTE II: Even when latency is set to 0 ms, S3 is programmed to always process a tiny default latency of 50 microseconds (or 0.05 ms) so that chords blocked in plainly in your MIDI editor will still work perfectly! Try with Strum On Poly for very quick and easy realistic chord parts with **effectively no latency**.

Additionally, this default latency enables processing of features listed above (such as keyswitches) before latency features (like note playback and strums). This means you can **always** place a keyswitch at the same grid position as a note, or in strum mode, you can place a chord voicing at the same grid position as a strum trigger. This is intended as a quality of life improvement for MIDI editing so that the user isn't required to nudge keyswitches or chord voicings behind the grid.

Finally, it is recommended to program the DAW track's offset to negate the **Poly Input Latency**. In other words, if the latency is set to 50 ms, programming the DAW track offset to -50 ms allows the user to compose on the DAW grid with confidence.

The Fretboard



Shows what notes are being played on which strings and frets. Note that you can drag horizontally across the fretboard to set a virtual **capo** position, which changes how the fretting and playback engine will select notes realistically.

Capo Position: Guitar-style transposing by placing a "virtual clamp" in shape of a wooden or metal bar on a particular fret. This can be automated by right-clicking. If Capo Position parameter has a larger value than Hand Position, Hand Position is disregarded. The Capo is used to allow a transposed set of open strings. For example, if Capo Position is set on the G fret, the guitar voicings can now utilize G, C, F, Bb, D, and upper G as the open strings when voicing chords.

Playback Engine Controls



Hand Size: Sets the 'reach' of the virtual guitarist's hand. If a note is played **outside** the hand size, it will require the hand to move to a new center position. With a hand size of **0**, the size of the hand will vary based on position (as not all frets are the same size).

Hammer-On Range: Sets a limit for the range where hammer-on/pull-off playing will be considered. If the hammer/pull articulation is disabled, this setting doesn't do anything. Likewise if the articulation is not triggering due to your TACT setup (velocity, keyswitch, etc.)

Min/Max Preferred Fret: The values set a range that the guitarist will *generally* prefer to play in. This is most meaningful for the **first** note played, as once other notes are being played, the other factors described above will be evaluated as well.

Picking Mode: Selects the type of picking behavior to use. Options are:

- **Up:** Only UP strokes will be used.
- **Down:** Only DOWN strokes will be used.
- **Alternate:** Up and down strokes will be alternated with each note.
- **Economy:** When changing a string, stroke direction that was used on the last note played on the previous string is preserved for the first note played on the new string, then alternates from there.

Fretting Mode: Selects which performance algorithm should be used. The factors described above will be evaluated differently depending on which mode you select.

- **Natural:** This mode is the most common usage for leads and leads mixed with chords created by polyphonic input. The fretting follows the hand size, where a guitarist will ascend up and down strings to play notes at a static hand position.
- **Sweep:** This mode is very similar to Natural fretting, with the sole exception that it will slightly prioritize playing notes on adjacent strings a little more to simulate the sweep picking technique used in fast guitar playing.
- **Moving Lead:** This mode is similar to Natural fretting but ascends the hand slightly when moving to strings upward in pitch. This allows a three-octave range for scales at a static hand position from bottom string to top string instead of two (assuming a 6-string guitar). The same range played in Natural mode would play the last octave all on the last string, which is not ideal.
- **Polyphonic:** Prioritizes using as many strings as possible simultaneously. This is ideal for any kind of **chordal** playing, ensuring that each note of your chord is played (as opposed to triggering legato, fret changes, etc.)

Force String: Selects a single string that will be used for **ALL** played notes, if possible. The 'forced' string will be highlighted on the fretboard.

Hand Position: Sets the fret at which the hand starts its reach to other frets (taking Hand Size into account). Setting this control to anything other than 0 will disregard Min/Max Preferred Fret parameters. Notes that don't fit into this hand position and size will play outside of the range, but will not move the virtual hand from this position.

Articulations Page Controls



(Hammer-On) Volume Realism: When enabled, decreases the volume of the hammer-on articulation by a static amount to emphasize the strength difference between sustain picking and fretting without the pick.

Force Hammer-On: When a note is triggered within the hammer-on range of any other ringing note, the hammer-on articulation is being triggered via TACT mapping, and the hammer-on does NOT exist already within the hand size and position, this will select a new string with the closest ringing note to perform the hammer-on. This can be useful to consider as taps with the picking hand instead of fretting with the fretting hand.

NOTE: Any note placed using this mode will ignore the virtual hand, and will additionally not inform the virtual hand to move to this position. It is recommended to only use this option if you want absolute control over which notes receive hammer-on articulations and are controlling the fret selection yourself using automatable parameters such as Force String and Hand Position. Using Force Hammer-on is essentially **incompatible** with the fretting algorithms offered.

(Slide) Volume Realism: When enabled, slide transitions and destinations will be attenuated over time, to emulate the physical constraint of continuously sliding on a string without repicking.

Vel > Slide Speed: [Full Patch Only] When enabled, the velocity of the slide note will scale the speed of the slide transition."

Slide Speed: [Full Patch Only] Adjusts the time-stretch factor of the slide transition (from 50% to 200% speed).

Vibrato Control: Vibrato can be set to trigger via **Aftertouch** or **Modwheel** (MIDI CC1).

Vibrato Mode: Switches the type of vibrato used.

Emulated: Vibrato is simulated using pitch modulation from Kontakt. This gives you precise control over speed and depth. This uses the least CPU as it does not involve any additional streaming voices, and offers the smoothest transition from 0 to max vibrato.

Fingered: Live-recorded vibrato performed with finger and hand movement. As this is a sampled performance, depth cannot be changed.

Vibrato Speed: Controls the speed of the LFO for Emulated vibrato, and time-stretches (or compresses) Fingered/Whammy vibrato using Kontakt's TM Pro algorithm. Note that this control does nothing in the "Lite" patch, which disables TM Pro.

Vibrato Depth: Available only with Emulated vibrato, this controls the **maximum** vibrato depth possible (reached when Aftertouch / Modwheel are at maximum.)

Tremolo Speed: [Full Patch Only] Controls the speed of the tremolo articulation via time-stretching (or compression) with the TM Pro algorithm.

Performance Page Controls



Mono Lead Mode: When enabled, virtual hand will not hold simultaneous notes. Releasing the latest note while holding older notes will retrigger the most recent note legato-style. Great for blazing solo parts!

Poly Release Retrigger: When enabled, released notes will retrigger legato-style just as in Mono Lead Mode. Unlike Mono Lead Mode, this behavior is constrained to each string.

[Release On] Hand Move: When enabled, if the virtual hand moves to a new position, all held notes will be released.

[Release On] Chord Change: When enabled and strum mode is activated, all held notes will be released when new notes are entered into the playable (blue range), changing the chord voicing.

Shred Window: The maximum amount of ms between subsequent played notes to trigger *Shred* processing. *Shred* processing uses a combination of sample offset and low-pass filtering to reduce pick energy during fast passages and create much smoother lines. This is the latest development towards the namesake of the series.

Shred Offset: The amount of sample offset to use during *Shred* processing.

Velocity Curve: This curve maps input velocity for the Velocity > Volume processing. Lower values result in quieter samples at the chosen velocity, while higher values are louder. The degree of the effect is controlled personally by each articulation in the TACT tab on the second parameter page. (See TACT manual)

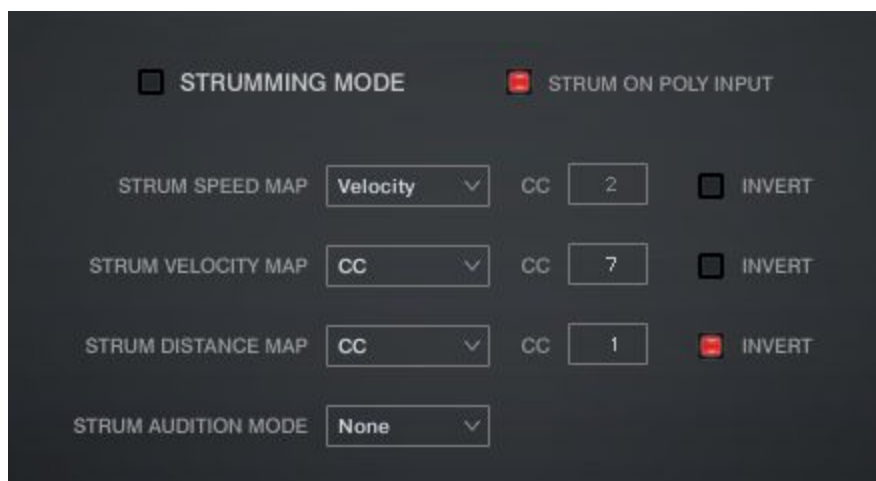
Strum Speed Curve: This curve maps input velocity to select different dynamic layers. Due to different articulations having a different number of layers, it is a general curve from 1 to 127.

Curve Minimum Value (left vertical slider): Adjusts the value at which the velocity curve starts. Holding Alt/Opt will also move the maximum value at the same time, making it a fixed value across the whole velocity range.

Curve Maximum Value: (right vertical slider): Adjusts the value at which the velocity curve ends. Holding Alt/Opt will also move the minimum value at the same time, making it a fixed value across the whole velocity range.

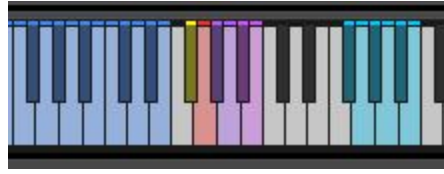
Curve Curvature: (bottom horizontal slider): Adjusts the curvature of the velocity curve, from concave, to linear, to convex.

Strumming Page Controls



New in the **S3** Engine is **Strumming**, a much-requested feature allowing you to easily play realistic-sounding strummed chords without finicky MIDI input or careful sequencing. There is now a dedicated "**Strumming Mode**", but all strumming features (with the exception of Strum Audition) can be used even in regular performance mode!

Before going over the controls, you can look at the dedicated strumming keyswitches located above the instrument's normal playable range:



Strumming Keyswitches (Pink Notes)

F#4: Toggles **Strumming Mode** on or off.

G4: Toggles **Strumming Mode** to the opposite of what is currently set in the GUI when pressed down, and returns to the previous setting when released. This is used in either mode to quickly and temporarily switch modes.

G#4: Plays a **downstrum** (all downstrokes). The strummed notes are whatever is being held in the normal playable range. The **speed** and **dynamic** of the stroke is based on the control settings on the Strumming Page (see below).

A4: Plays an **upstrum** (all upstrokes), again based on what is being held in the normal range.

A#4: Plays a **partial downstrum**. This plays an downstrum starting from the bottom string, with the engine selecting the number of strings travelled based on the **Strum Distance** setting (see below).

B4: Plays a **partial upstrum**. This plays an upstrum starting from the top string, with the engine selecting the number of strings travelled based on the **Strum Distance** setting (see below).

Picking Keyswitches (Light Blue Notes)

Starting with **F#5**, each note here corresponds to a string, starting with the lowest string. Playing one of these notes will pick the note that is being voiced on that string. If no note is voiced on the selected string, the algorithm chooses another valid string to play, so that all string pick keys will ensure a played note.

This allows you to retain the same picking patterns in MIDI data while changing the chords that are voiced on the strings, which is a common way of playing guitar in many pop and rock songs.

This is a very useful and musical way of triggering notes from a chord: give it a try!

Strumming Controls

Strumming Mode: When strumming mode is turned ON, playable range notes no longer result in sound playback. Instead, the fretboard algorithm will visually display the most recent notes held together (up to the number of available strings), re-calculating the shown voicing on every new note to select the best and most

natural way to play the chord. This voicing is stored in perpetuity, so all string picks and strum triggers will act on this voicing.

Strum on Poly Input: When Strum Mode is disabled, notes played within the Poly Input Latency window will activate a full downstrum following the strum mappings for timings and velocities. Using this option, you can seamlessly mix strummed chords and lead/melody parts without doing any keyswitching at all!

Strum Speed Map: Selects how the speed of strums is modified, either by using velocity or by using a MIDI CC.

Strum Speed CC: This CC is used for calculating strum speed when CC is selected in Strum Speed Map menu.

Strum Speed Invert: Invert the input values when calculating strum speed.

Strum Volume Map: Selects how is the volume of strums modified, either by using velocity or by using a MIDI CC.

Strum Volume CC: This CC is used for calculating strum volume when CC is selected in Strum Volume Map menu.

Strum Volume Invert: Invert the input values when calculating strum volume.

Strum Distance Map: Selects how is the distance of partial strums modified, either by using velocity or by using a MIDI CC.

Strum Distance CC: This CC is used for calculating partial strum distance when CC is selected in Strum Distance Map menu.

Strum Distance Invert: Invert the input values when calculating partial strum distance.

Strum Audition Mode: Setting this to New Note will play new individual notes in the playable range. Setting this to All Notes will play all current stored notes in the set voicing on every new note.

Hint: Set to "New Note", you can essentially play notes in the playable range with full confidence that they will be voiced polyphonically and as close to the actual voicing as possible. This can be just as, if not more effective than the **Polyphonic** fretting mode.

Advanced Page Controls



DI Line Noise: Increases the volume of constant line noise. The noise will start when you start playing, and will fade out when you finish.

Downstroke Offset: Increases the sample offset for all articulations' downstroke RRs.

Upstroke Offset: Increases the sample offset for all articulations' upstroke RRs.

Release Time Windows: This section controls extra triggering logic for pitched and unpitched releases. You'll need to make sure these articulations are enabled and playable in **TACT** first, otherwise these controls won't do anything.

Release Min/Max: Sets the minimum and maximum time threshold that is required for the release sample to trigger. This is useful so that very short or long notes do not play release samples.

Random Resonance: When enabled, the virtual guitarist will occasionally 'flub' a note, touching an adjacent open string or two. You can set the **Chance** of this occurring per note, and the **Volume** of the resonance. Useful for adding extra dirtiness and overtones to your parts, but it does **cost extra CPU, so be careful!**

Rake Picking: If the **RAKE** articulation is enabled and playable in TACT, it will play **before** a sustain articulation. The **Time** control sets the delay between the rake sample and the following sustain sample, and **Variation** selects which sample set to use for the rake. The max value of the **Variation** knob will pick random samples each time.

Keyswitch Functions: These dropdown menus let you specify keyswitches for specific engine functions. You must ensure these don't conflict, as they exist outside of TACT and have no built-in conflict detection. The keyswitch notes created by these menus are all **latching**.

Force String: Sets up a keyswitch note for each string, plus a note to disable 'Force String'. When enabled, all notes will be played on the desired string if at all possible.

Picking Mode: Sets up a keyswitch note for each possible picking mode.

Set Hand: Sets up a keyswitch note that, when pressed, sets the current **hand position**. The hand position selected equals the velocity of the keyswitch note (velocity 1 = fret position 1, velocity 2 = position 2, etc.)

Fretting Mode: Sets up a keyswitch note for each possible fretting mode.

Hand Reset Time: Once all notes are released, the engine will reset the virtual hand position after this much time has passed. If you are using a forced hand position, this does nothing.

Hand Reset - On Start: When enabled, the hand position will reset on DAW transport start.

Articulations List

Normal Articulations

Sustain: Standard picked single notes that ring out fully. Simple!

Mute: Palm muted single notes recorded with multiple degrees of palm muting, from very muted to half-muted. The amount of palm muting is controlled by velocity.

Choke: Quick, short strums across all strings, muted to the point where there is very little pitch.

Release Articulations

As the name suggests, Release articulations trigger when a MIDI note is released (note-off message). These are incredibly useful for making your virtual guitar parts sound more realistic by automatically adding scrapes, squeaks, and other little noises throughout the performance.

[REL] Pitched: The sound of a string being released on a given pitch.

[REL] Unpitched: All sorts of non-tonal scrapes, squeaks, and pick movement that is inherent to natural and realistic playing.

Tips & Tricks

- You can make the guitar sound **deeper, darker, and larger** than it actually is by reducing the **Tune** knob of the Kontakt instrument by around -5 semitones, then increasing the **Transpose** knob within the S3 UI by +5 semitones. The result is the same pitch but with a more robust tone. This is also a handy tool for creating even more convincing double-tracks. You can try less OR more extreme values as well!
- Switching the **Fretting Mode** of the instrument can dramatically change the tone and character of your performances. If you aren't 100% pleased with the voicing of your parts, try simply changing modes - you may not need to do any automation or MIDI tweaking whatsoever to get the perfect result!
- When mixing and mastering rock and metal tracks using Shreddage 3, offset the guitar tracks backwards (in other words, negative offset) by 20-30 ms. If you are using poly input latency, add that number as well. If you are using global sample offset, subtract that number.

This will dramatically reduce the delay of the guitar transients against drum sounds. The guitars will pop better, as drum transients hitting a master compressor will compress guitar notes that arrive after them, whereas guitar transients that arrive before the compression has fully kicked in will have a chance to be lively and sound with better detail.

Credits

Lead Producer: Andrew Aversa

Programming: Nabeel Ansari, Mario Kruselj

UI Design: Constructive Stumblings

Recording & Performance: Juan Medrano

Editing: Anthony Mena

Troubleshooting

Having trouble with Shreddage 3 Stratus? Use it in a project you want to tell us about? Drop us a line via our [Contact page](#) (but be sure to [read the FAQ](#) first!)