

ujam



VIRTUAL GUITARIST

IRON²

ujam

Screaming At The Neighbor

Pickup

Bridge Neck

Character

Fat
Soft
Bite
Twang

IRON²

Stomp Box

Auto Wah Syncopated

Finisher

Agreeable Ambiance

Tune Variance Effect

Effect

Player Instrument

Latch

Force Damp

Style

Power Trimming Double Time

120 bpm

Common Phrases

Style Phrases

Stop

Play Mode

Chord

C1 C2 C3 C4

Play he

User Guide

Version 1.0.2

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Welcome to Virtual Guitarist IRON 2



Virtual Guitarist IRON 2

We hope you will enjoy *Virtual Guitarist IRON 2*, a powerful addition to your musical palette, and we thank you for being a part of the UJAM community of music creators!

About the New Virtual Guitarist

The original *Virtual Guitarist* was a best-selling virtual instrument series developed by Wizoo and distributed by Steinberg from 2002. The core people behind Wizoo, now in UJAM, also originated *Virtual Guitarist IRON 2* – your new virtual instrument.

UJAM has revived the success of the temporarily discontinued Virtual Guitarist series with a bunch of popular VGs (as we call them): *Virtual Guitarist IRON, AMBER, SPARKLE, SILK and CARBON*.

When we launched the series of Virtual Guitarists with *IRON* in late 2017, it was already a total remodeling of a successful but discontinued product series – the original Virtual Guitarist that Peter Gorges, Paul Kellett and a few others from today’s UJAM team co-developed with Steinberg in 2002.

The new Virtual Guitarist series – with *VG IRON 2* – again – being the first title to be launched – marks yet another generation change. What defines a “new generation”, compared to an upgrade or update?

In this case, a new generation means a completely new technical and musical foundation under the hood – a thing we call the engine – that enables our users to do things they have been asking for for a long time that we weren’t able to provide them with in the previous series.

Virtual Guitarist IRON 2 is based on an engine, a musical concept and an idea of a virtual guitar that is completely re-designed from the ground up.

Just like the first series, it offers you an amazing player mode that automatically creates great guitar performances out of the press of a key.

Unlike the first series, it is based on a complete guitar model that gets “played” either by you or a Player. It is the quickest, most intuitive way of getting to realistic, inspiring guitar performances in case you don’t play the guitar. Many of our users know this concept from our *Virtual Bassists*, but being that the guitar is a polyphonic instrument, we had to take it to a whole new level.

Let's look at one concept out of many so as to demonstrate what you'll no doubt enjoy: When playing a virtual guitar instrument on a keyboard, it is almost impossible to create a realistic result, because strings and keys are very different. For example, there's no concept of up- or downstrokes on a keyboard. So the first thing we set out to solve was how to make a virtual guitar realistic when played on a keyboard. A guitarist needs both hands to play – one hand controls the actual playing of the strings: strumming, picking, muting – whereas the other controls which notes get played by pressing fingers on the fretboard.

We essentially transferred that concept to the keyboard of *IRON 2*: You can now strum, play individual strings, mute and control stroke direction with the left hand while your right hand plays notes or chords, serving as fingers on a fretboard.

Also, we added a voicing mechanism that ensures whatever notes you play, they will always be translated to the next suitable voicing of a guitar – because, here as well, keyboard and guitar are very different.

This is a long-winded way of saying that *Virtual Guitarist IRON 2* allows you as a non-guitarist to play things you would have never been able to without requiring you to learn the guitar. This opens up a whole new world for you.

Of course, we added countless other improvements and additions, many of which came as suggestions from you, our user base. *IRON 2* now has MIDI drag-n-drop functionality, a Finisher, Stomp Box effects and the amps have been completely re-designed to sound even fatter and more authentic than before!

We at UJAM did our best to create this new Virtual Guitarist with the hope that it will catch you thinking: *"Wow, I can now play guitar although I can't play guitar."*

Welcome to the new generation that is *Virtual Guitarist IRON 2!*

What's New?

The features we added and improved in *Virtual Guitarist IRON 2* are a mixture of the most frequent user requests and catching up with features we introduced in other instruments. Here's a quick rundown of the new or upgraded features:

UI Facelift

Users of the original *IRON* will find the user interface slightly extended and enhanced to reflect the new features. We made it a thing to keep the original usability as intact as possible though. Although we've added lots of functionality to the new Virtual Guitarist, using *IRON 2* is as easy as ever thanks to a new UI design that guides the eyes and looks even cleaner.

MIDI Drag and Drop



In Player Mode, the keys of the on-screen keyboard are now horizontally divided into two sections. The top section looks like a tab.

Click onto a tab and drag into the Virtual Guitarist track of your DAW, then let go to drop the phrase into your track as a MIDI File.

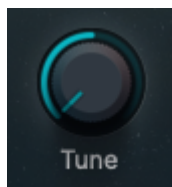
Any phrases can be dragged and dropped: Common phrases and Style phrases. This opens up a slew of creative options:

- Tweak phrases to your liking by changing velocities or adding and replacing notes
- Combine phrases from multiple styles

Building Songs

If you play a key or chord before or while you drag, the dropped MIDI phrase will be in that key or chord. Use this to build entire songs: Hold a chord, drag phrase, hold next chord – you get it!

Tuning



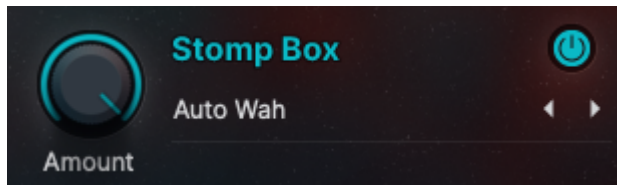
You are now able to tune your *Virtual Guitarist*! Pitch it up or down by up to 3 semitones, depending on your needs.

Instrument Mode



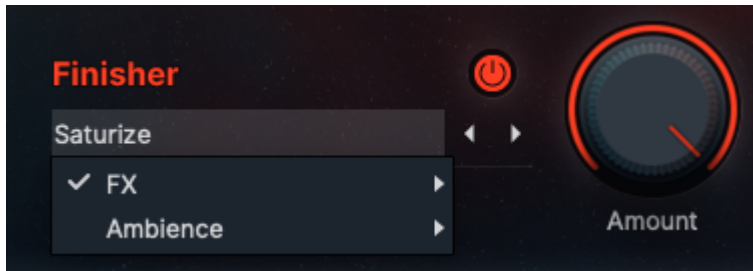
The Instrument Mode was probably the most requested feature for IRON, as many users wish to play the built-in guitar, rather than “just” triggering phrases and chords.

Stomp Box



The brand new *Stomp Box* effect allows you to choose from 30 different effect combinations in order to create a wide selection of classic guitar sounds that we all know and love so much. It's a really amazing addition to *Virtual Guitarist*, but we didn't stop there...

Finisher



The *Finisher* is a new section that adds even more guitar-optimized effects to your *Virtual Guitarist* and offers endless sound design possibilities.

New Styles and Presets

Virtual Guitarist IRON 2 comes loaded with 30 brand-new style phrases, 354 phrases overall (330 style phrases and 24 common phrases), and 300 additional presets! As this is *IRON 2*, we put a special emphasis on Rock, Metal, and the various sub-genres within.

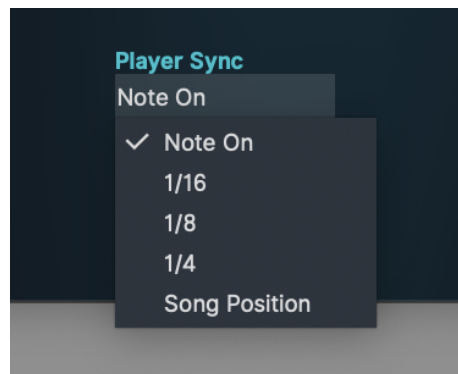
Resizable Interface



The user interface is now resizable to fit different sizes of screens. To resize, either click the “window” icon next to the notification bell in the top right corner or simply drag the three stripes in the bottom right corner of the user interface.

DAW Sync

You can now quantize the player to match the playback – this setting can be found in the *Micro Timing* overlay. Quantize to the current grid, 1/4, 1/8, or 1/16 notes. This new feature keeps the *Virtual Guitarist* always in sync with the DAW timing position to make sure you have the phrase in time and on the right beat. Give it a try!



Player Sync

PreSonus Studio One Integration

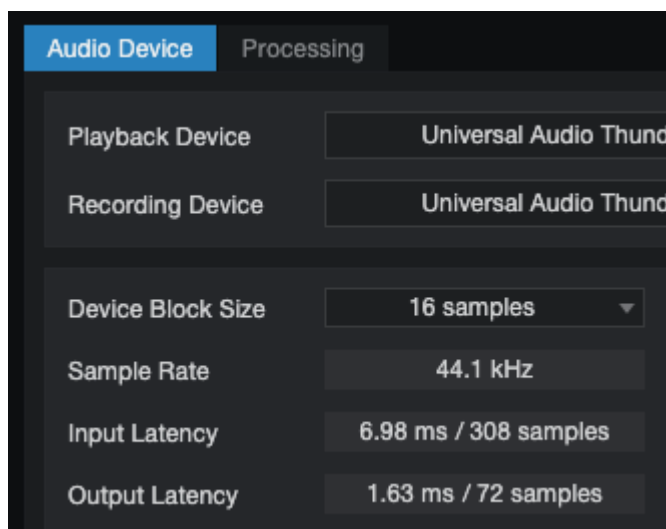
With the new VG IRON 2, we provide Studio One users running on version 4.6.2 or later with an exclusive PreSonus chord track and Sound Variation feature!

Descriptions of styles and key switches are displayed on the piano roll to help you find the right styles and phrases faster and easier for your track. The Sound Variations are highlighted in red on the piano roll.

The chord track feature in Studio One automatically follows the chords and automatically changes the MIDI notes for you. Use the “Follow Chords” toggle underneath the right keyboard on the user interface. We recommend **not** setting a song key when using the feature.

Note: Changing styles or common phrases won't influence or change the chord tracks, but the rhythmic input. Not all chords that are possible in the PreSonus Chord track, are recognized in our instruments. The closest interpretation will then be used.

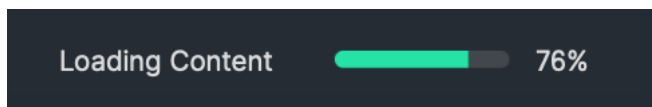
Also the performance of this feature depends on the latency setting of Studio One – we always recommend using a low latency setting to get the best results possible.



Studio One Audio Device Settings

Loading Indicator

We added a loading bar that displays the loading status of the sample library when opening the instrument in the DAW. If you use an external HDD for the content files, loading it might take a little while, depending on your hardware.



You and Us

Virtual Guitarist IRON 2 was built *by* musicians *for* musicians. We at UJAM are a pretty diverse bunch – from DJ to guitarist to weekend producer to Oscar-awarded Hollywood composer. We build every product for ourselves, and, like you, we're all users of *Virtual Guitarist* too.

That means that before we even start developing, a lot of thought and discussion goes into finding out what the user will expect from the product, what problem it solves, which controls we can remove to make the product more inviting, and which hurdles we can destroy that might get between you and a perfect track.

Every *Virtual Guitarist* is optimized for one clear, powerful purpose: to produce great-sounding guitar tracks without distracting you from the complex endeavor that producing a song is.

We hope that *Virtual Guitarist IRON 2* transpires that philosophy in everything you do with it.

Naturally, we're always open to new ideas and critique, and you are always encouraged and welcome to talk to us:

- Send us an email: www.ujam.com/contact-us/
- Visit our Facebook page: www.facebook.com/ujaminstruments
- Watch our Youtube channel: www.youtube.com/ujaminstruments
- Follow us on Twitter: www.twitter.com/ujaminstruments
- Like us on Instagram: www.instagram.com/ujaminstruments

Looking for Quick Help?

If you're just looking to figure out something quick, there are three ways to get there:

- The *Quick Reference* has super-short explanations for every control.
- The *Walkthrough* is a guided tour where you'll try every control on the *Virtual Guitarist IRON 2* screen once – the quickest hands-on experience possible.
- If you're looking for in-depth explanations of all functions and controls, head straight for the *Reference Guide* further down.

Quick Reference

Area	Parameter	Explanation
Menu Bar	Preset	Click name to open the menu for browsing and loading a new <i>Virtual Guitarist IRON 2</i> preset
	Save	When editing a user preset, click to save your preset, replacing the previous version.
	Save as...	Click to save your preset under a different name and – optionally – assign a category.

	Window Icon	Click this button to quickly resize the GUI to better fit your screen. This button toggles between the smallest and largest sizing.
	Notification Bell	Will illuminate for notifications such as product updates.
	Info Icon	Opens the About Page displaying your licensing status and links to acknowledgements, website, this manual and product support.
Mode Selector	Player/ Instrument Mode Switch	Selects whether <i>IRON 2</i> performs like a phrase player or a realistic guitar instrument that offers you much more control.
PLAYER Mode	Key	Takes away complexity and limits to playing only power chords and sus4 chords that sound good within the chosen song key.
	Style	Loads a Style (collection of 11 phrases, accessible via the style phrases section of the keyboard).
	Micro Timing	<p>Only in Player mode, this menu opens a selection of parameters adjusting the timing of the guitar player:</p> <p>Player Sync: You can now quantize the <i>IRON 2</i> player to match the playback. Quantize to the current grid (Song Position), 1/4, 1/8, or 1/16 notes. This new feature keeps the instrument always in sync with the DAW timing position to make sure you have the phrase in time and on the right beat. Give it a try!</p> <p>Humanize:</p>

		<p>Using this knob you can gradually quantize the guitar performance. In the center position, the timing of the strumming will be exactly as the guitarist played it when recording the performance.</p> <p>In the leftmost position, the timing will get more loose as the subtle deviations of the guitarist's performance are increased. As you turn the slider to the right, the strumming will gradually become more quantized to the song's grid position.</p> <p>Speed: Lets you switch the player's relative tempo to half, normal or double time.</p> <p>Feel: Set to left of center for a rushed "pushing" feel and to the right for a more laid-back, "dragging" feel.</p> <p>Swing: Continuously adjusts syncopation – often also called Shuffle. Move to the right to syncopate off-beats.</p>
Interactive Keyboard	Common Phrases	Keys in this area select "always useful" phrases that can be combined with style phrases. Keys Bb1 and B1 trigger one-shot special phrases.
	Style Phrases	Keys in this area select phrases of the currently selected Style.
	Play Range	Keys in this area will tell Virtual Guitarist <i>IRON</i> what to play – featuring built-in chord detection. The detected chord will be displayed above the interactive keyboard.

	Drag'nDrop Tabs	In Player Mode, click and drag the top part of any phrase key and drop the phrase into your DAW track.
Guitar	Pickup	Blends between the Bridge and the Neck pickup of the guitar.
	Character	Selects one of four basic characters, affecting the dynamic range as well as the sound character of the instrument.
	Drop D	Tunes the lowest E string down by two semitones, extending the low range of the guitar from E to D.
Amp	Amp	Selects one of five amplifier setups or a direct output option.
	Drive	Controls the level of overdrive in the preamp of the amplifiers.
Finisher & Stomp Box	Mode Select	Select one of the Modes using the arrows or the dropdown menu.
	Amount Knob	Adjust the effect by turning or automating this knob.
Volume	Slider and Meter	Controls and monitors the output volume of <i>IRON 2</i> .
Latch		<p>Player Mode: When active, <i>IRON 2</i> will continue to play the most recently selected key without requiring you to hold it. This will continue until you deactivate 'Latch' or press the 'Stop' key.</p> <p>Instrument Mode: When active, <i>IRON 2</i> will remember the notes you press on the Fretboard, allowing</p>

		<p>you to use the same hand to control the Key Switches for strumming. Try it, it's huge fun!</p> <p><i>Note: With 'Trigger Mode' set to 'On', the 'Latch' feature will also cause the notes to fully sustain despite being released.</i></p>
Wheels	Pitchbend Wheel	<p>Force (Player Mode): Realtime—controls the dynamic level of the Player's performance.</p> <p>Bend (Instrument Mode): Bends the overall pitch by ± 2 semitones in both directions.</p>
	Modulation Wheel	<p>Damp: Gradually morphs towards (palm-)muting as you turn up the wheel.</p>

Player Mode

In *Player Mode*, the rhythmical, articulation and phrasing aspect of the guitar performance are controlled by *IRON 2*. All you need to do is select the phrases and chords you want to be played.



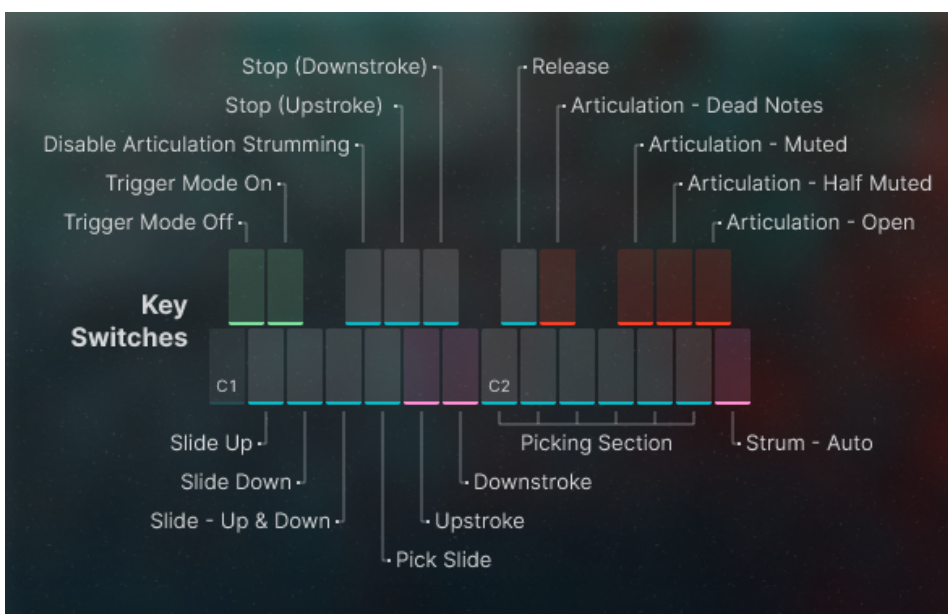
Player Mode Common phrases

Parameter	Explanation
Common Phrases	Keys in this area select “always useful” phrases that can be combined with style phrases.
Style	Loads a Style (collection of 11 phrases, accessible via the style phrases section of the keyboard).

<i>Silence</i>	<p>This key will silence all phrases. If a phrase is currently playing, it will sustain the most recently played note(s).</p> <p>With LATCH enabled, this key silences the performance but doesn't stop it. You can continue by selecting any phrase key.</p>
<i>Style Phrases</i>	<p>Keys in this area select phrases of the currently selected Style. Generally, as you play the white keys upwards, the intensity of the phrases will increase. Depending on the Style, the black keys may provide useful fills.</p>
<i>Stop</i>	<p>Use this key to immediately stop the active phrase. Unlike the 'Silence' key, this key does not sustain the final notes.</p>
<i>Key</i>	<p>Set the key signature of your song and activate the "fun" mode: <i>IRON 2</i> will only output power chords that will sound great in the key of your song, regardless of what notes you press! Please note that all complex chords are disabled and you can only trigger one key at a time.</p>
<i>Chord Reader</i>	<p>This feature will show you which chord is being played by the instrument</p>
<i>Chord/Note Mode</i>	<p>Selects between <i>Note</i> and <i>Chord</i> playback modes</p>
<i>Phrase Drag'n'Drop</i>	<p>Common and Style Phrase keys have specially marked handles at the top. You can drag phrases directly from there into a MIDI track in your DAW to edit the notes and phrasing using your DAWs editors.</p>
<i>Play Range</i>	<p>Play the notes to be triggered by the phrases. Up to four notes for a chord (a tetrad) will get recognized and interpreted.</p>

Instrument Mode

In *Instrument Mode*, the keyboard emulates guitar playing technique. You play the *Key Switch* range with your left hand and the *Fretboard* range with your right hand to create performances.



Instrument Mode Key Switches

Why so Few Controls?

We are all musicians and we know that there's never enough time to invent and lay down that amazing idea that's in your head.

We are also UI (user interface) and UX (user experience) experts, and we know that there's a trade-off between complexity – giving you maximum flexibility at the cost of time – and ease of use – letting you focus on your music at the cost of detailed editing options.

The way we design our user interfaces is aimed at giving you the best of both worlds:

- **Easy, not simple:** By eliminating unnecessary controls and carefully grouping, macro-fying, and labeling those that we decide to include, we strive to offer you an instrument that allows you to focus your full attention on making it sound like you. This way you don't have to waste too much of your limited time and energy on a cluttered screen that is too complex to navigate.
- **Hardly any learning curve:** Usually you can use any of our instruments straight out of the box, with minimal reading required.
- **Fail-proof interface:** No matter how you set up the controls of *Virtual Guitarist IRON 2*, the result will never be musically or technically wrong, and it gives you immense freedom and flexibility to create your sound.

Most importantly (especially for those of us who don't play the guitar), you can trust in the fact that tracks produced with *Virtual Guitarist IRON 2* are legitimate and professionally-recorded guitar tracks.

Trial and Authorization

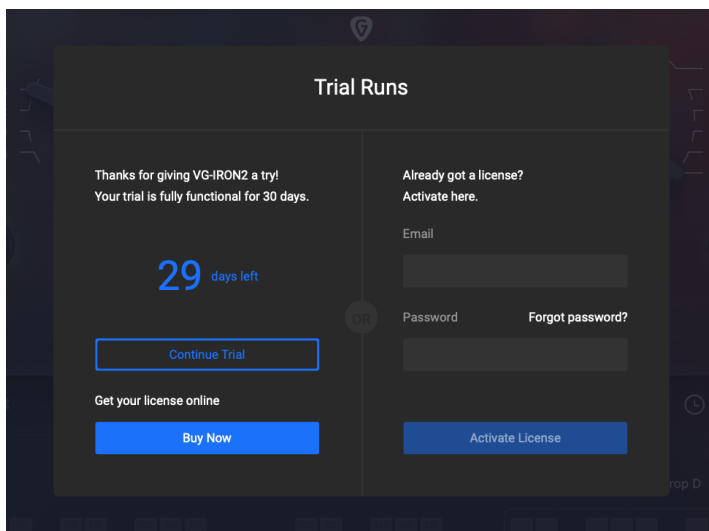
We have designed the entire process of downloading, activating and authorizing *Virtual Guitarist IRON 2* with a strong focus on simplicity. It's important to us to make it as easy as possible for you to get your hands on *Virtual Guitarist IRON 2* – and make it your own if you like it.

Trying, Buying, Authorizing

We only want you to spend money if you're absolutely happy with *Virtual Guitarist IRON 2*. Therefore, we grant you a 30-day trial period, during which the plugin will run without any limitation.

When opening *Virtual Guitarist IRON 2* during the trial period (or when clicking the *Authorize* button in the menu bar), you will see this overlay which:

- Displays information about your trial status
- Provides a link to the UJAM website where you can purchase a permanent *Virtual Guitarist IRON 2* license after or during the trial period
- Allows you to enter your credentials and authorize *Virtual Guitarist IRON 2* once you've purchased your copy



Trial Screen

Where to Put the Content

The actual guitar goodness of *Virtual Guitarist IRON 2* – the audio content – is packed into so-called ‘blob’ files named ‘VG-IRON2_part1.blob’ and ‘VG-IRON2_part2.blob’. Together, they are about 6.5 GB large.

You can keep the blob files anywhere you’d like (e.g. on a separate content drive).

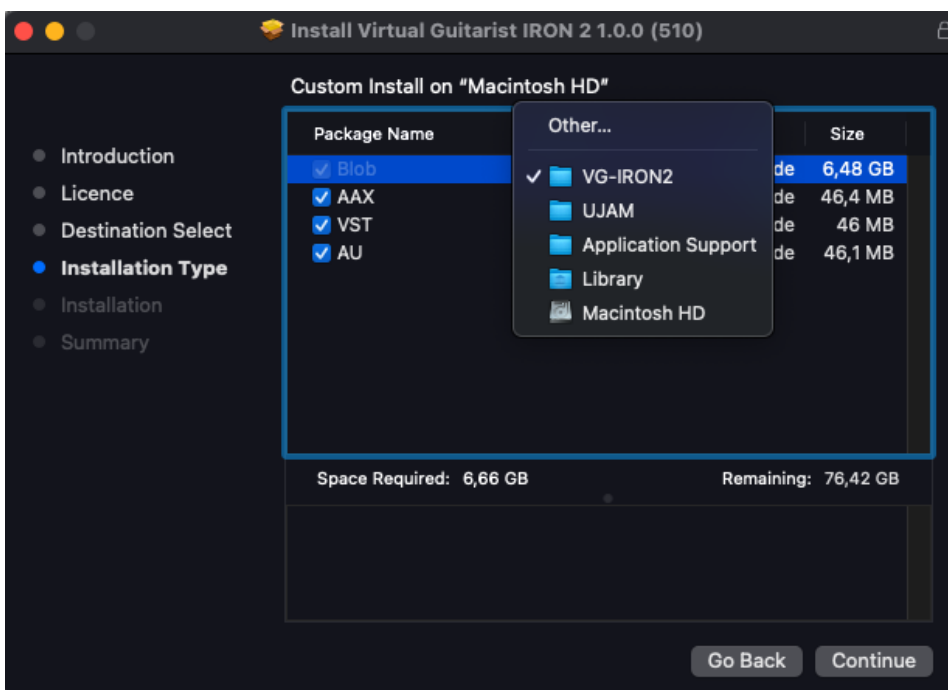
During standard installation, it will be put into the following locations on your system drive:

OS X	/Library/Application Support/UJAM/VG-IRON2
Windows	C:\ProgramData\UJAM\VG-IRON2 (assuming your system drive is C)

Installing to a Different Drive on macOS

If you wish to install the blob files onto a separate drive, you can set a different content installation folder in the installer.

- Open the installer and follow the procedure to step “Installation Type”
- Click the “VG IRON2” folder next to Package Name ‘Blob’ to select it – as shown in the image below – and follow the instructions in the installer.

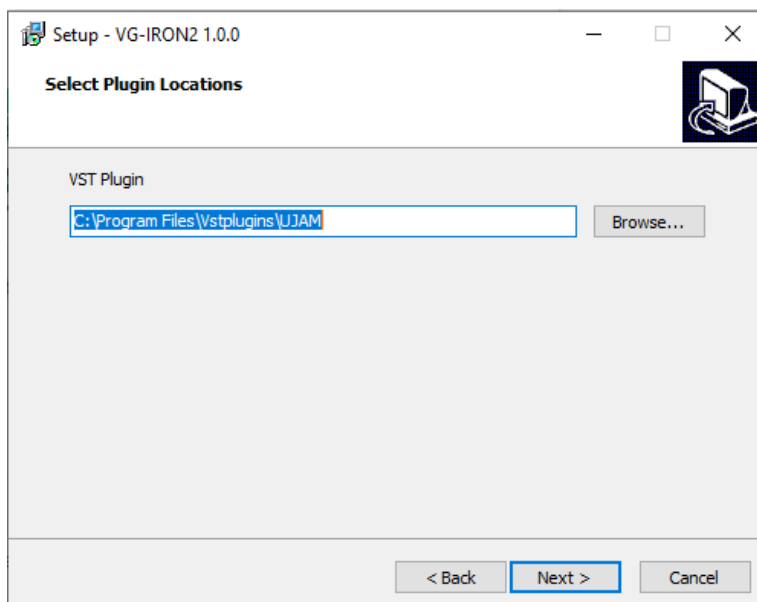


macOS Installer – Change Content Location

Installing to a Different Drive on Windows

The Windows installer will ask you if you want to install the content to a different directory.

On Windows, you can also set a different location for the plug-in, however we recommend leaving this untouched unless you have a good reason.

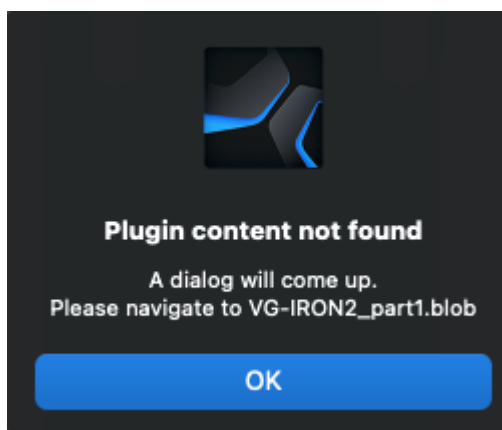


Windows Installer – Change Content Location

Changing the Content Location After Installation

You can always change the content location after installation by just moving the VG-IRON2_part1.blob and VG-IRON2_part2.blob files:

- Move your files to the desired location (different folder or different drive)
- Launch your DAW and open *Virtual Guitarist IRON 2*. It will present you with a dialog asking for the file location. Simply point to the new location of the files – and you're done.



Blob file relocation dialog

Controller Hardware

Virtual Guitarist IRON 2 requires MIDI note input for playing and recording musical performances, and optionally Pitch Bend, Modulation and Sustain Pedal data for added real-time variation.

If you have a MIDI controller (keyboard), this will be the easiest and most straight-forward MIDI input method and it's most fun as this way you control your guitar player in real-time.

Of course, you can also control *Virtual Guitarist IRON 2* by using MIDI step sequencers or by entering MIDI notes manually into MIDI tracks.

To get to know Virtual Guitarist IRON 2 and for testing purposes, you can also use the interactive keyboard in the top half of the Virtual Guitarist IRON 2 window. This works best with the Latch function enabled.

Please note that whatever you play on this keyboard won't leave Virtual Guitarist and therefore won't be recorded in your DAW.

Start Playing!

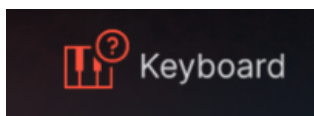
Before we look at things in more depth, let's first explore how to play *Virtual Guitarist IRON 2*, as that may be all you need for now.

Let's go through the various playing modes and how you can use them:

- By default, *Virtual Guitarist IRON 2* is set to *Player Mode*.
- When you press keys from C3 upwards, *Virtual Guitarist IRON 2* will start playing a phrase with the notes you hold on the keyboard. When you release the key(s), playback will stop (if it doesn't, check to see if 'Latch' is enabled!).
- MIDI notes below C3 don't represent musical keys but instead select the phrases of your player in real-time. This is a powerful way of making your performance interesting and dynamic.
- Switch between 'Note' and 'Chord' mode from the dropdown and you'll see that the first is optimized for melodic riffs, while the latter interprets chords from your input.

When using a keyboard, combine left hand (*phrase select*) and right hand (*notes*) to build your performance.

- By switching to *Instrument Mode*, you turn *Virtual Guitarist* into a virtual guitar, i.e. you can play it like a real guitar, string by string. The interactive keyboard will display different options now. For demonstration purposes, please set *Trigger Mode* to 'On' (more on this later!).
- The left range of the keyboard (labeled 'Key Switches') lets you choose different articulations and strumming styles rather than phrasing. Play a few notes in the *Play Range* while the left hand selects from the black keys ranging from Bb2 to Eb2. Notice how the instrument switches between playing dead notes, muted, half-mutes and sustains (going up the keyboard respectively).
- The other "black" keys (not really black on our sleek on-screen keyboard) trigger *Stops* and *Releases*. Click on the *Keyboard* tooltip button for a more detailed overview of what each key controls:



If you know these things and can switch presets, you know all that you need to in order to start producing with *Virtual Guitarist IRON 2*.

*C3 is middle C. The MIDI note number is 60. Some DAWs refer to it as C4.

Walkthrough

Note: Keywords printed italic refer to parameter or section names you will also find elsewhere in this manual.

If you're pressed for time or if you already know the basic concepts behind Virtual Guitarists, then this walkthrough may be all you need for now, and you can come back later to look up deeper explanations as you need them.

We will take a quick tour across all controls of *Virtual Guitarist IRON 2*. After this, you will have a basic understanding of the instrument and how to use it.

We assume you have Virtual Guitarist IRON 2 opened in your DAW. Ideally you have a MIDI controller connected, otherwise use the interactive keyboard.

Make a Sound and Learn About Chords

- With *Player Mode* selected, play C3 or a higher note. Your guitarist will start playing. Play a few notes and get a feel for how it works.

Try the Presets

- At the very top of the *Virtual Guitarist IRON 2* window you can load presets. A preset is always a complete setting of *Virtual Guitarist IRON 2*, i.e. it will change the performance as well as the guitar and effects.

Note: the presets apply to both *Player* and *Instrument Modes*, and the *Latch* feature is independent of preset settings.

- At this point, you can simply go through different presets to get an impression of the musical and sonic palette of *Virtual Guitarist IRON 2*.

Tell Your Player What You Want

- In *Player* mode, activate the *Latch* button on the far left above the interactive keyboard. Now *Virtual Guitarist IRON 2* will keep playing even if you don't hold a note. Let it keep playing.
- Now play a note in the correspondingly labeled '*Style Phrases*' range of the keyboard, C2 – A#2. Go upwards through the *Style Phrases* and notice how the phrasing gets more intense. These are the phrases you can replace by loading different *Styles*. Let's do just that now:
- Load different *Styles* by clicking the *Style* name or the arrows above the interactive keyboard. You will notice that your guitar player masters a vast range of playing techniques and musical genres.
- Now try keys in the C#0 – B1 range, labeled *Common Phrases*. These phrases will always be there no matter which *Style* you've loaded, and can be freely combined with the *Style Phrases*.
- Interrupt your player temporarily by holding the *Silence* key (C0). Playing will continue when you play another note. Now stop your player by pressing or clicking the *Stop* key (B2).

You can use the 'Silence' key with 'Latch' mode on to mute your phrase but keep it running. This is different from lifting the key and playing it again as that will restart the phrase.

Melodic vs. Power Chords

- Switch the *'Play Mode'* between *'Note'* and *'Chord'* and notice how *'Note'* mode is optimized for interval riffs, while *'Chord'* mode will play up to 4-voice chords interpreted from your input.
- Try setting the *'Key'* parameter to the key of your song and notice how it limits what is played to ensure that the chords work within the selected scale. This is a nice helping hand if you're not too familiar with keyboard playing or music theory.

More Performance—Tweaking Fun

- Have *Virtual Guitarist IRON 2* keep playing. Open the *Micro Timing* menu by clicking the *Micro Timing* icon on the right side of the middle control bar.
- With the new *Player Sync* option, you can now quantize the *IRON 2* player to match the playback. Quantize to the current grid (Song Position), 1/4, 1/8, or 1/16 notes. This new feature keeps the instrument in sync with the DAW timing position to make sure you have the phrase in time and on the right beat. Give it a try!
- The *Speed* switch lets you set *Virtual Guitarist IRON 2* to half time or double time – this is extremely handy when you like a particular style that plays half- or double-time relative to your existing arrangement.
- Now experiment with the *Feel* slider right next to the *Speed* control. It makes subtle changes to the timing, creating a rushed or relaxed feel. Maybe play a drum loop along for better comparison.

- Slowly turn up the *Swing* control that is next in line. As you will notice, this will delay the off-beats until the phrasing resembles a ternary feel that is common in Swing music (hence the name), often also called Shuffle or Groove depending on your DAW.
- Finally, start playing around with the *Humanize* slider, which is the last control in the *Micro Timing* menu.

Play the Guitar Yourself

If you're a prolific keyboard player, you might as well play the entire guitar yourself:

- Switch Virtual Guitarist to *Instrument Mode* by clicking 'Instrument' on the left side of the middle control bar (close the *Micro Timing* menu first if it's still open).
- Note how the interactive keyboard reflects the new mode – here, all keys from C3 upwards control the chord selection, while the Key Switch range below lets you strum chords or pick the individual notes and control the articulation of how the notes are played. Play open, half muted, muted, dead notes and stops. Experiment with your left hand while your right hand plays chord changes.
- Deactivate the *Trigger Mode* by pressing C#1 and notice how the Play Range changes to the Fretboard (now much more guitar-like).
- When *Trigger Mode* is off, you can silently change chords on the Fretboard on the right. Try using the Articulation keys with your left hand while your right hand changes the notes – pretty much like a guitarist does it with one hand stroking the strings and the other working the Fretboard.

- A not so obvious but cool feature: *IRON 2* can hold a chord in *Instrument Mode*. Activate *Latch* and the last played chord will get remembered, which allows you to use both hands for the *Key Switches*. This really comes in handy when playing live with a MIDI controller.

Find Your Guitar Sound

Let's look at the top half of the *Virtual Guitarist IRON 2* window. Here you set up the guitar and the amps, and you can shape the sound in almost any way you like.

- Activate *Player Mode* with *Latch* on so the instrument will keep playing while you tweak the controls.
- First, play with the *Character* selector. Notice how each selection changes the timbre of the guitar sound in a unique way. This control offers you four of the most suitable sound characteristics for rock guitars (more details in a later section).
- Now experiment with different *Amps* and the *Drive* knob. This does a bunch of well-adjusted things inside the array, practically controlling the sound, level and depth of distortion.
- With the *Pickup* and *Focus* knobs you can quickly and easily change the character of your guitar sound.

Add Some Effects!

- Some people on the UJAM team think that so far you've only seen half the fun of *IRON 2*, because the other half is the effects section. It lets you mangle and twist the sound of *IRON 2* in a lot of ways – from subtle adjustments to total craziness. Let's try it:
- While *IRON 2* is playing, click through the *Stomp Box* and *Finisher* presets by using the arrow buttons next to the *Amount* knob, or by selecting presets from the menu that opens when you click the preset name.
- With every preset you try, turn the *Amount* knob up and down and listen for the alterations in the sound! A complete guide to *the* presets is included in the Reference section.

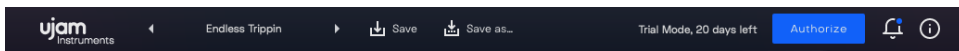
By now, you have a pretty good first impression of what *IRON 2* can do! Keep playing and experimenting. There's nothing to break. When you're done, just start laying down tracks or continue to the Reference Guide for more detailed information.

Reference Guide

In the following part of this user guide, every feature of *Virtual Guitarist IRON 2* will be explained in depth.

Menu Bar

The top bar of the *Virtual Guitarist IRON 2* interface lets you load and save presets. It also contains important management functions from checking your trial status to contacting support.



Menu Bar

Loading Presets



Preset Browser

A preset in *Virtual Guitarist IRON 2* is a complete setting of the entire plug-in including *Style* selection and all control values. Here's how you can switch presets:

- Advance to the next or previous preset by clicking one of the arrows to the right of the preset name.
- Click on the name of the current preset in the preset menu to open the *Preset Browser* (see image above).

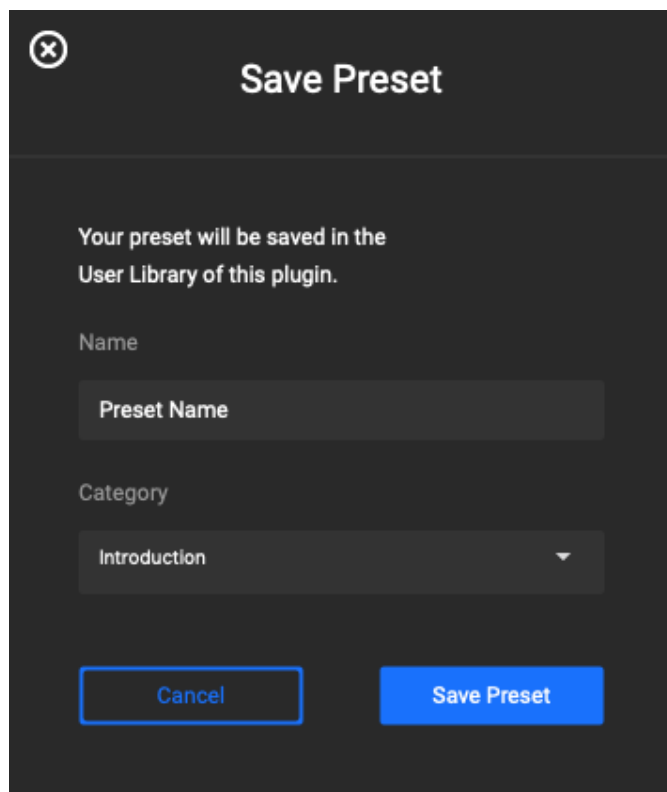
As you can see, the *Preset Browser* is a clean, organized list of presets that is categorized by simple musical terms.

Virtual Guitarist IRON 2 ships with a lot of Factory Presets. Take your time exploring them, as this is the quickest way to get an overview of what *Virtual Guitarist IRON 2* can do!

If you have freshly installed Virtual Guitarist IRON 2, there will only be 'Factory Presets'. 'User Presets' will appear once you create and save your own custom presets:

Save and Save As ...

Once you've created a preset that you like, you can save it by selecting 'Save As...'. A pop-up will prompt you to name your preset and select a category for it, if desired.



Save Preset

Your preset will be saved in the
User Library of this plugin.

Name

Preset Name

Category

Introduction

Cancel Save Preset

“Save as...” Dialog

The difference between the ‘Save’ and ‘Save as...’ buttons is as follows:

- ‘Save’ replaces the active preset with the changes you just made.
- ‘Save as...’ lets you assign a new name and a category, so it does not replace the current preset.

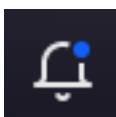
Note that you cannot overwrite Factory Presets. You can only select ‘Save As...’ to create a new preset with the changes that you’ve made.

Moving, Renaming and Deleting Presets

You can move, rename or delete Presets directly in your operating system. You will find *Virtual Guitarist IRON 2* Presets in these folders (replace "USERNAME" by your actual username):

OS X	<i>Factory Presets</i>	/Library/Application Support/UJAM/VG-IRON2/Presets
	<i>User Presets</i>	/Users/USERNAME/Library/Application Support/UJAM/VG-IRON2/Presets
Windows	<i>Factory Presets</i>	C:\ProgramData\UJAM\VG-IRON2\Presets
	<i>User Presets</i>	C:\Users\USERNAME\AppData\Roaming\UJAM\VG-IRON2\Presets
	<i>(assuming your system drive is C)</i>	

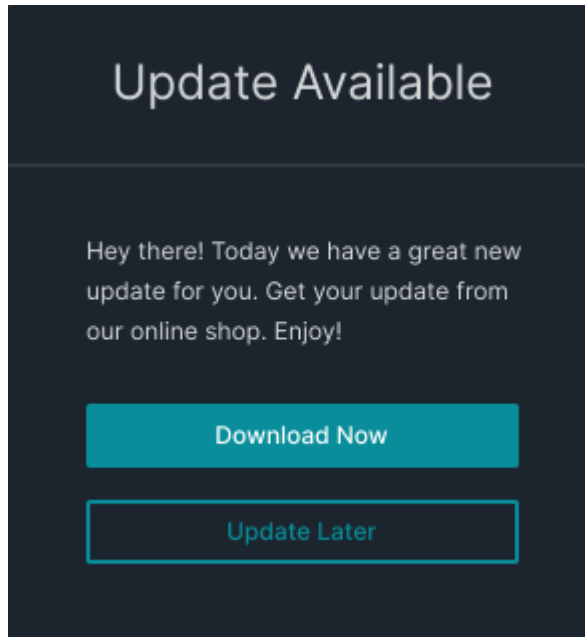
Notification Icon



Notification Icon

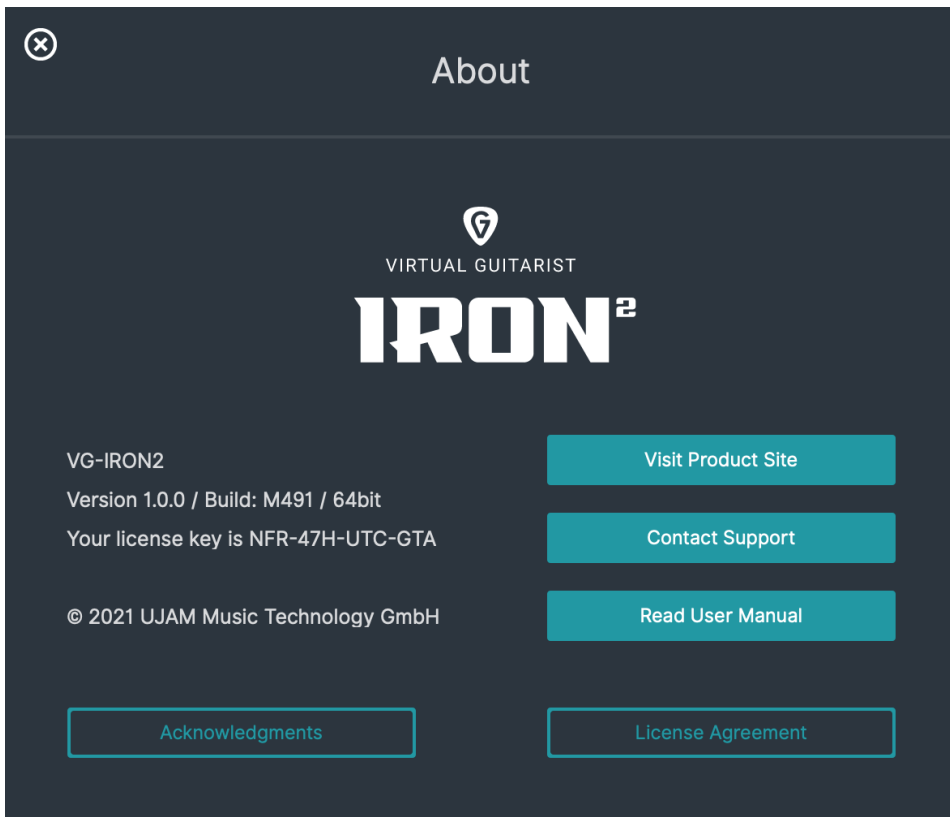
When you launch *Virtual Guitarist IRON 2*, it will automatically check for updates. If an update is available, the notification icon will be activated.

Clicking it will open a dialog that lets you choose whether you want to download the update now or later:



We built this mechanism to save you the pain of manually checking for updates in order to keep up with the latest improvements of Virtual Guitarist IRON 2.

Info Icon – About Page



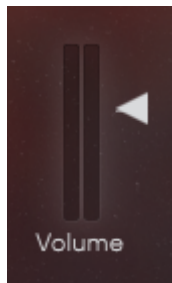
About Page

The About Page is the place for information about your version and licensing status of *Virtual Guitarist IRON*. It is also a portal to other services:

- *Visit Product Site* – takes you to the UJAM website with regularly updated news, videos, tutorials and other helpful stuff.

- *Contact Support* – lets you report problems and ask questions.
- *Read User Manual* – opens this document.
- *Acknowledgments* – the people behind Virtual Guitarist *IRON 2*.
- *License Agreement* – legalese for gourmets.

Volume Section



Volume Meter and Slider

Although a virtual instrument such as *IRON 2* lives inside a DAW with multiple level faders, a correct output level setting is important. If nothing else, it makes sure that subsequent audio processors, particularly dynamics or distortion, work in their optimal range.

Therefore, the *Volume* slider and meter on the right side of the plug-in lets you set and automate *IRON 2*'s output level between $-\infty$ and +12dB, and monitor the resulting level.

All components in *IRON 2* are adjusted so you won't exceed the level meters top range, but it's still ideal to watch it, particularly if you will be automating the *Drive*, *Stomp Box* and *Finisher* controls.

Player and Instrument Mode



Player/Instrument Switch

Virtual Guitarist IRON 2 can perform either as a guitar **player** or as a guitar **instrument**, and you can switch between those two at any time.

- In *Player Mode*, the rhythmical, articulation and phrasing aspect of the guitar performance are controlled by *IRON 2*. All you need to do is select the phrases and notes you want to be played.
- In *Instrument Mode*, *Virtual Guitarist IRON 2* emulates a guitar instrument that you can play on your MIDI keyboard.

Note that the Interactive Keyboard and its MIDI note assignments are very different in INSTRUMENT and PLAYER mode. Also, certain parameters such Micro Timing are only needed in PLAYER Mode and therefore hidden in INSTRUMENT mode to avoid clutter and confusion.

Which Mode for What?

Player Mode:

Use this mode when you want to enjoy the performance of a real guitar player that requires very simple input from yourself. Here, you control *Virtual Guitarist IRON 2* using notes from a piano track, your MIDI keyboard, or the on-screen keyboard within the plug-in. This creates a vivid and realistic performance that can be customized by switching the phrases in the *Common* or *Style Phrase* areas of the Interactive Keyboard.

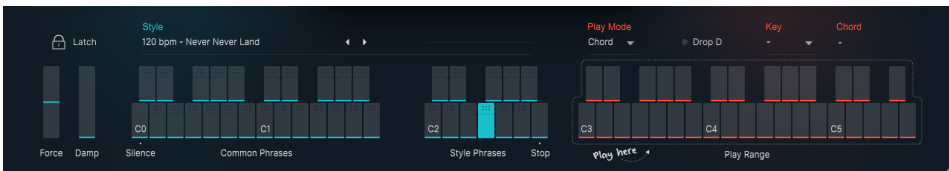
Instrument Mode:

This mode is perfect if you are a prolific keyboard player and want to play the guitar live, or if you just want to throw in a riff or note here and there.

Interactive Keyboard

The Interactive Keyboard is both a display of received MIDI notes and an actual functional on-screen keyboard – with the only exception that notes you play on the Interactive Keyboard are not recorded into your DAW.

The layout and functionality of the Interactive Keyboard changes between *PLAYER* and *INSTRUMENT* modes as shown below.

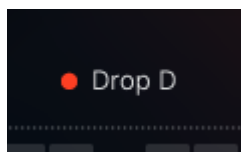


Interactive Keyboard in Player Mode



Interactive Keyboard in Instrument Mode

Drop D



Drop D switch (in the "on" position)

This switch, when activated, tunes the E string of the guitar down by a whole note, dropping the pitch to D (hence the name). This extends the note range, but also has a big impact on the overall playing style, as special *Drop D* chord voicings will then be used automatically.

Force, Bend and Damp

The three controllers represent the standard wheels on a MIDI Keyboard. They behave a bit differently in both modes, so we'll cover them here.

Force (Player Mode)



The force wheel controls the dynamic level of the player's performance in real time.

Bend (Instrument Mode)



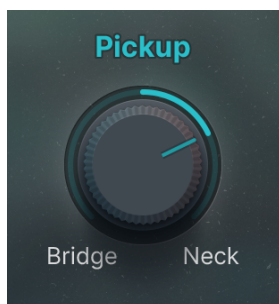
The Bend Controller or Wheel allows you to bend the pitch by up to two semitones up or down.

Damp



Allows you to seamlessly switch between the different articulation types from open to dead notes.

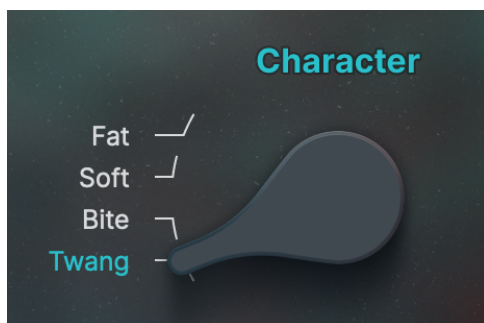
Pickup



Pickup

Electric guitars have one or more pickups – the electromagnetic components that pick up the vibrations of the strings and convert them into electric signals. By choosing and combining pickups, guitarists have a lot of influence over the characteristics of the guitar sound. All *Virtual Guitarist IRON 2* samples are in stereo – one channel of the stereo image is the *Bridge* and the other one the *Neck* pickup signal. With the pickup control, you can seamlessly blend between these options.

Character



Character

In addition to the *Pickup* knob, the *Character* control offers you four of the most suitable sound characteristics for rock guitar pickups:

Character	Description	Use
Fat	Rock guitar with bridge Humbucker – lots of power, lots of mids.	For fat rock sounds or clean sounds with powerful mids – probably the most universal setting.
Soft	Warm neck pickup sound, very round.	For soft, non-aggressive sounds with a fuller bass. Sounds better with low-mid distortion.

<p>Bite</p>	<p>Bridge pick-up Stratocaster character with a lot of bite and sharp upper mids.</p>	<p>Works best with distorted amp settings. For tracks that need to cut through a mix.</p>
<p>Twang</p>	<p>Single-coil pick-up guitar with less mid range, similar to a Telecaster or a Stratocaster with two out-of-phase pickups.</p>	<p>“Glassy” character with well defined treble. Use for clean or only subtly crunched sounds.</p>

The above descriptions provide general guidelines and technical info. We encourage you to always try out all pickup positions for any given track.

Amp



Amp Selector

Virtual Guitarist IRON 2 features a sophisticated guitar amp and speaker simulation. In other words: the amp sound is not baked into the guitar performance. Instead, as you play, the clean guitar signal is sent to an amp and speaker where the final sound is produced.

Not only does this give you full control and flexibility over the sound, it also means that the complex interactions between guitar and amp are produced in real time for a dynamic and realistic result. The *Amp* selector lets you choose between five amplifier presets for a large range of musical styles. Each preset is a pre-configuration of an amp and a speaker cabinet, including pre-set internal parameters that provide the right character and range of sonic possibilities for each preset:

Amp	Character	Use
Direct	No effect of the <i>Amp</i> section	For processing the signal in an external guitar amp (plug-in), or if you want a distinctly clean, unprocessed guitar sound.
Clean	Crystal clear treble, versatile and punchy – inspired by the legendary Fender TwinReverb.	For clean to subtly overdriven sounds, very dynamic.
Crisp	Very smooth transition from clean to overdriven; the amp for that bluesy character. Inspired by a combination of a Marshall JMP Plexi and a Tube Screamer.	When <i>Clean</i> is too clean and <i>Crunch</i> is too distorted – this amp is perfect for hybrid clean/overdriven sounds that are super popular in Blues and many other styles.

Cream	<p>The 90s rock sound, providing a large range of tones from mid-rich, clean sounds to the proverbial creamy distortion. Inspired by a combination of a Vox AC 30 with a Tube Screamer.</p>	<p>For mid-heavy power sounds that are warm, yet not too scratchy in the high range.</p>
Crunch	<p>The classic gold/black British rock stack you still see on stages all over the world. Very "British" distortion – raw and powerful character. Inspired by a Marshall JCM 800 and JCM 900.</p>	<p>For everything Rock from the 70s until today.</p>
Metal	<p>Big Rock stack pre-loaded with a distortion pedal for a fat distorted sound with massive bass and less mids. Inspired by a Mesa Boogie Dual Rectifier.</p>	<p>For everything harder, including Metal. Use <i>Drop D</i> for extra evil (e.g. Nu Metal).</p>

Drive



Drive Knob

The *Drive* knob adjusts the overdrive level of the tube amp. Simply put: the lower the *Drive* setting the cleaner, and the higher the *Drive* setting, the more distorted the sound of *IRON 2*. The effect is very different depending on the *Amp* you've chosen. Naturally, cleaner *Amp* settings such as *Clean* or *Crisp* will work better with lower *Drive* settings, whereas *Crunch* and *Metal* benefit from a higher dose of *Drive*.

Focus



Focus Knob

The *Focus* knob controls a morphing EQ. Across the range of the knob we have placed 4 distinct EQ settings, optimized for *Virtual Guitarist IRON 2*. Instead of just switching between those settings, the *Focus* control lets you morph through them, allowing you to tweak the character of the sound before you send it to the *Finisher*.

Knob (o'clock)	Position	EQ preset	Focus ...
7		Bass Boost	<i>IRON 2</i> 's lowest frequency range, particularly effective in the low play range. At this position, the high range is also attenuated. Use e.g. when doubling bass lines with <i>IRON 2</i> .

9	Low Mid Boost	... the lower mids and low noise portion of <i>IRON 2</i> 's sound. Use to separate rhythmic riffs from the bass and an <i>IRON 2</i> riff with a lower octave version in a second instance
12	Neutral	No effect. The <i>Focus</i> knob is bypassed.
3	Hi Mid Boost	... higher mids – where the “twang” sits. When you stack <i>IRON 2</i> tracks, you can efficiently avoid masking by setting their <i>Focus</i> EQs to slightly different settings such as “2” and “3:30”
5	Hi Range Boost	... the high range, naturally most efficient with the higher note range and melodies rather than rhythmic figures.

Width



The Width control

The *Width* control is a complex engine-in-the-engine that is capable of doubling guitar signals by using slightly different guitar samples and positioning them vertically and horizontally across the sound stage.

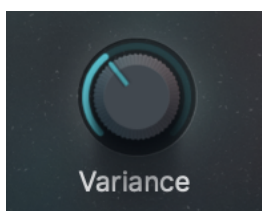
This means that it doesn't merely multiply a single guitarist's signal. This knob is the equivalent of what a sound engineer would do when having to disentangle multiple guitar tracks – all fighting for the same frequency ranges and just creating a ton of mush – in order to re-establish transparency and the ability to distinguish the various guitars from one another. The sound-engineering term for this would be “un-masking”.

As you will notice over time, *IRON 2* is most powerful when doubled, as the *Width* control saves you the tedious work of setting up various instances with their respective mix settings.

Of course, there will be situations where you do want to use several instances – e.g. to have multiple IRONs with different Amp settings or Finisher presets, or when you want total individual control over each guitarist's mix. But for a big coherent sound, the Width control is a super-convenient and optimized tool.

Using *Width*, you can build all kinds of guitar scenarios from subtle intro guitar to huge Walls of Sound.

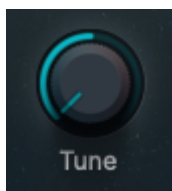
Variance



This parameter allows you further control over how realistic *Virtual Guitarist IRON 2*'s behavior truly is. At higher values, the *Variance* control more realistically mimics a live guitarist's performance.

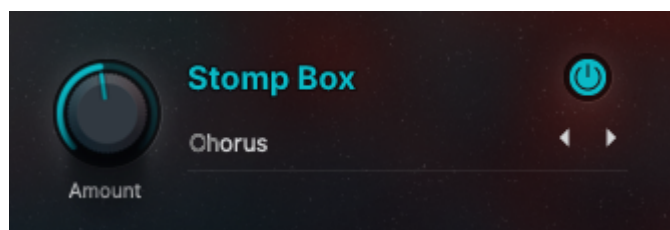
It is theoretically impossible for a guitarist to strum multiple strings at the same exact time. That's because there is a physical distance between the strings, causing them to be strummed sequentially rather than simultaneously. At higher values, the *Variance* control increases the presence of this strumming delay, while also adding additional fret noise to bring the performance to life.

Tune



This knob allows you to detune *IRON 2* by three semitones up or down. Tuning down is pretty useful for subgenres like Djent and tuning up can also be used for bending notes even further during a guitar part.

Stomp Box



Stomp Box Section

The brand new Stomp Box lets you choose from 30 different effect combinations in order to create a wide selection of classic guitar sounds that we all know and love so much. These effects are pre-amp, meaning that the amp and speaker section will dynamically react to your input.

You'll find the Stomp Box at the center of the screen, slightly to the left. It consists of an on/off button, an *Amount* knob, and a *Mode Selector*.

Step through the 30 modes using the arrows on the *Mode Selector*, or select one from the list by clicking on the title in the drop-down menu.

Use the *Amount* knob to adjust the effect. You're very encouraged to use the Automation feature for the *Amount* knob for dynamic transitions or modulations. The *Stomp Box* effects are selected and optimized for *Virtual Guitarist IRON 2*. They cover distortion, modulation, EQ and ambience – often all in one Mode. Experiment with them and enjoy!

Stomp Box Mode Reference

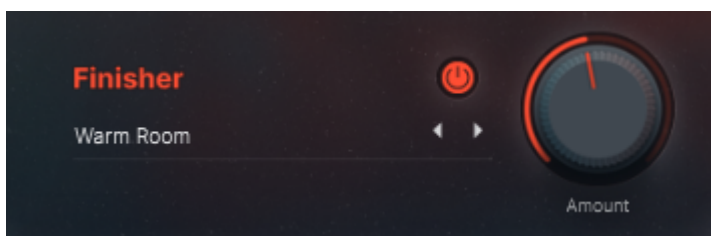
#	Mode	Description
1	<i>Adaptive Filter</i>	This touch 'wah' dynamically responds to the input. A classic effect technique from guitar history.
2	<i>Auto Wah</i>	The classic downbeat 'wah' pattern. Emulates guitar players that get confused if they move their foot offbeat (95%)
3	<i>Auto Wah Syncopated</i>	A more sophisticated 'wah' pattern. Emulates guitar players that don't get confused if they move their foot offbeat (5%)
4	<i>Booster</i>	A straightforward booster pedal, pushing higher levels into the amp for more amp overdrive.
5	<i>Chorus</i>	An old chorus pedal for that oldschool 80s touch.
6	<i>Compressor</i>	A compressor stompbox to make your guitar more funky.

7	<i>Delay 1/8</i>	A delay pedal set to straight notes. Use this if your guitar part is rather complex and you want to make it a bit straighter.
8	<i>Delay 1/8 Dot</i>	A delay pedal set to dotted notes. Use this if your guitar part is rather straight and you want to make it a bit more complex.
9	<i>Dirty Spring</i>	An old spring reverb to add some patina and dust.
10	<i>Distortion</i>	Yes, it is indeed a distortion pedal.
11	<i>Flanger</i>	Much like the distortion and phaser pedals, this pedal does what the name implies.
12	<i>Hard Distortion</i>	We shamelessly stole this popular Octafuzz mode from Finisher Retro. Just like the original, this works best on simple power chords and not at all on complex voicings.
13	<i>LoFi</i>	Usually not found in traditional guitar pedal boards: bit and sample rate reduction. Nice for industrial vibes or if you happen to cover Rammstein.
14	<i>Manual Filter</i>	Manual filter, with the knob being the cutoff control. Automate with your daw for nice sweeps.
15	<i>Manual Wah</i>	Much like the manual filter, this allows you to create your own 'wah' patterns via automation.
16	<i>Octaver</i>	A clean Octaver. What we just said about the Octafuzz under 'Hard Distortion' applies here as well.
17	<i>Old Phaser</i>	Another model of a phaser pedal, but a much older one.

18	<i>Overdrive</i>	Much like the distortion, phaser and flanger pedals, this pedal also does what the name implies.
19	<i>Phase and Flange</i>	An ensemble effect. Use this if you want to use a chorus without using a chorus.
20	<i>Phaser</i>	And yes, this is indeed a phaser pedal.
21	<i>Phaser Sweep</i>	Very much a special effect, this ever-rising phaser is great for breakdowns and "what the hell is this??" moments.
22	<i>Resonance</i>	This resonator turns even the edgiest guitar parts into fluffy clouds of sound.
23	<i>Reversinator</i>	Buy a tape machine, rehearse to play your guitar part in reverse, setup the tape recording in reverse, and finally set it back to normal. Or use this mode.
24	<i>Rotary</i>	Classic "guitar plugged into rotary speaker" sound.
25	<i>Small Room</i>	Before actual room reverbs were invented, people imitated them with short slapback echos.
26	<i>Spring Splatter</i>	If the spring reverb didn't sound old enough for you, try this even older, slightly out of order spring variant.
27	<i>Tremolo</i>	Much like the distortion, phaser, flanger and overdrive pedals, this pedal also does what the name implies.
28	<i>Warm Drive</i>	We love this one. It's kind of a hybrid between a clean booster and soft overdrive. The term "warm" is hopelessly overused, but here it truly does apply.

29	<i>Warm Spring</i>	If you wanted a spring reverb, but the other ones were too springy and splattery for you, try this one.
30	<i>Warp Delay</i>	A self-oscillating delay with variable time controls, for those classic "delay dive bombs". For maximum Hendrix vibes, combine this with the "Woodstock" Finisher mode.

Finisher



Finisher Section

The *Finisher* is a new section that adds even more guitar-optimized effects to your *Virtual Guitarist*. It was introduced with *Virtual Guitarist Carbon* in late 2019 and became so popular that we made it into its own product line and we will integrate it into all of our instruments over time!

Finisher is a super powerful custom effect array, with no less than 20 individual effect processors, macro-controlled by a single selector and control knob. Within the two categories *FX* and *Ambience* you will find many effects from EQs to multiband compressors to distortion, delay, chorus, phaser, flanger, and reverb to a convolution unit (providing impulse responses of cabinets and more), to more experimental stuff.

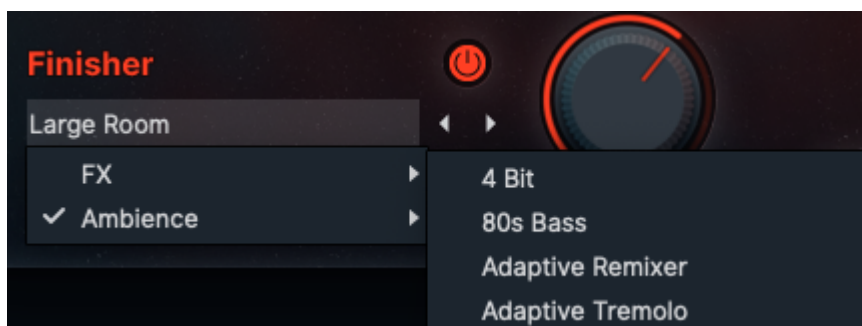
It lends the raw guitar sound all kinds of finish, from subtle character changes to standard effects such as delay, reverb or modulations to crazy grain clouds that render the original sound unrecognizable.

The Finisher section is the way to go for creative sound–design. It comes with over 60 modes, specifically created for *Virtual Guitarist IRON 2*. Every preset sets up the 20 individual processors in a new way and connects them to the *Amount* knob.

Best of all: the *Finisher* is optimized to be played live. Using the *Finisher* knob you can create amazing morphing sounds.

And it couldn't be simpler:

Finisher Drop–Down Menu



Drop–down Menu

To select a *Finisher* mode preset:

- Click on the preset name to open the full list, or
- Click the arrows next to the knob to step through the list

FX Mode Reference

#	Mode	Description
1	<i>4 Bit</i>	Instantly remix your guitar part into evil noise.
2	<i>80s Bass</i>	An animated octaver and some more aggressive processing to turn your guitar into an old school synth bass.
3	<i>Adaptive Remixer</i>	And while we are talking about adaptive effects, here is a beat-cutting effect that responds in the same way.
4	<i>Adaptive Tremolo</i>	And of course you also need a tremolo that alters its speed based on the input. When adjusted correctly, it goes "weweweweeeweeeweeeweeeee". Nice.
5	<i>Adaptive Wah</i>	A post-amp touch wah. But because wahs sound a bit weird behind the amp, this is actually closer to a synth filter to be honest.
6	<i>Bitrate Sequencer</i>	Sequenced bitreduction is always a great remixing tool.
7	<i>Colorizer</i>	This mode takes the current frequency spectrum and turns it on its head. Think of it as the sound engineers variant of "and now to something completely different".
8	<i>Compressor</i>	In contrast to the biting compressor pedal, this is a smoother, more studio-ish post amp compressor.
9	<i>Demonizer</i>	Imagine an artist saying "I want something that's

		reeeeeally extreme and aggressive". That would be the moment where you try this mode.
10	<i>Dual Rotary Chorus</i>	We created a quasi chorus effect out of two rotary speakers. It's nerdy. But it's fun. And it's yet another color option for chorus guitars.
11	<i>Industrializer</i>	During development, this was called "groovy industry". Because, yes, it's kind of an industrial mode. But also super groovy. We find that a nicely ironic and unheard of combination.
12	<i>LoFi</i>	A LoFi patch with a lot of bite.
13	<i>Manual Filter</i>	A post-amp manual filter. Because it makes a huge difference whether you do your filtering pre or post amp. Both variants sound super nice, so we think you should have both.
14	<i>Modulator</i>	A modulator that dynamically alters its modulation rate based on the audio input. Nicely unpredictable!
15	<i>Pan to Growl</i>	Set this to slow speeds for traditional autopanning, or high speeds for evil growling.
16	<i>Parallel Reamping</i>	Imagine you took a recorded, already amped guitar, and patch this out to yet another 2 guitar amps. That's what this does. But of course you can also just feed a DI signal into it.
17	<i>Phaser and Delay</i>	This phaser also dynamically responds to its input, giving you a nice alternative to the traditional LFO approach.
18	<i>Pop Delay</i>	A standard pop delay. Again, it does make a big difference whether you use such effects pre or post amp, so we find you should have both options.

19	<i>Pop Guitar</i>	A decent, very responsible effect combo for pop guitars.
20	<i>Remix Reverb</i>	Turn your guitar into a remixed synthpad kind of thing. It sounds like a lot of things, but not a guitar anymore.
21	<i>Reverb and Delay</i>	An agreeable combo of reverbs and delays for instant pop appeal.
22	<i>Reverb and Delay 2</i>	Another combo of reverbs and delays, this time reminiscent of famous clean goth and wave guitars.
23	<i>Saturize</i>	A popular technique is to print your guitars on saturated tape for some extra grit. This mode does exactly that.
24	<i>Space Reverb</i>	Similar goal, different approach.
25	<i>Stutter Destruction</i>	Try this if the other remix modes did not sound remixed enough.
26	<i>Stutter Symphony</i>	It's a symphony of audio stutters. We really don't know how else to describe this.
27	<i>Tech Sequence</i>	Try this if the other remix modes did not sound remixed enough, including the one where we said "Try this if the other remix modes did not sound remixed enough".
28	<i>Warm Octave Cloud</i>	A warm blanket of filtered pitch shifting.
29	<i>Warm Reamp</i>	A warm reamping mode, but again with the added twist that it dynamically responds to the audio input.
30	<i>Woodstock</i>	Clearly our favorite mode. It's noisy. It produces actual internal feedback. It's super unpredictable. And that is the whole point.

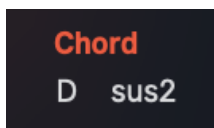
Ambience Mode Reference

#	Mode	Description
1	<i>60s Rotary</i>	Instant 60s vibe, we like to think.
2	<i>Cathedral Reverb</i>	A large cathedral-type reverb. Great for goth stuff!
3	<i>Concert Room</i>	A high-quality concert room.
4	<i>Delay 1/16</i>	In your catalog of common delay times, you'll find this hectic 1/16 delay.
5	<i>Delay 1/4</i>	In your catalog of common delay times, you'll find this not so hectic 1/4 delay.
6	<i>Delay 1/4 T</i>	In your catalog of common delay times, you'll find this triplet 1/4 delay.
7	<i>Delay 1/8</i>	In your catalog of common delay times, you'll find this semi-hectic 1/8 delay.
8	<i>Delay 1/8 Dot</i>	In your catalog of common delay times, you'll find this 1/8 dotted delay.
9	<i>Echo Farm</i>	Lots and lots of old echos.
10	<i>Feedback</i>	This simply adds internal feedback. So the result will very much depend on your chosen amp and preamp pedal.
11	<i>Freeze Pad</i>	If you want to annoy your keyboard player with the classic "I can do synth pads, too!" move.

12	<i>Gated Reverb</i>	Gated reverbs are actually rarely used on guitars. We found that all the more reason to include one... Who knows.
13	<i>Ice Cave</i>	An icy, bright and somewhat cold reverb.
14	<i>Large Room</i>	Yes, this room is somewhat large.
15	<i>Medium Room</i>	No, this room is not quite as large.
16	<i>Modulated Reverb</i>	Using the secret trick of a particular famous 80s reverb classic, this mode smuggles some modulation into the reverb tail.
17	<i>Mystic Delays</i>	If you do indeed want a delay, but it should somehow sound more, well, alien.
18	<i>Niceness Reverb</i>	It's " <i>the niceness</i> " reverb. It does therefore add niceness. And reverb. Or nice reverb. It depends.
19	<i>PingPong 1/4</i>	In your catalog of common delay times, you'll find this 1/4 PingPong delay.
20	<i>PingPong 1/4 T</i>	In your catalog of common delay times, you'll find this triplet 1/4 PingPong delay.
21	<i>PingPong 1/8</i>	In your catalog of common delay times, you'll find this 1/8 PingPong delay.
22	<i>PingPong 1/8 Dot</i>	In your catalog of common delay times, you'll find this 1/8 dotted PingPong delay.
23	<i>Resonator</i>	The post-amp optimized variant of the fluffy blanket mode we mentioned earlier.
24	<i>Reverb and Phaser</i>	It's hard to find the exact moment when this became a thing, but some time during the 80s, this combo became a must-have trope.

25	<i>Reverse Delays</i>	Reverse delays are awesome. Try reverse delays. Like, try them whenever you try delays at all.
26	<i>Rotary Room</i>	A rotary in a room. You'd never have guessed!
27	<i>Rotten Spring</i>	Much like the extra rotten spring in the preamp pedal section, this is the stereo variant that you'd use in the finished recording.
28	<i>Slap Back Delay</i>	Instant 50s vibe, we like to think.
29	<i>Splatter Spring</i>	This mode concludes our symphony of spring reverb options.
30	<i>Spring Reverb</i>	Another spring reverb option. No such thing as too many spring reverb options.
31	<i>Warm Reverb</i>	If you think "I don't need any fancy rocket science, just a bit of reverb would be fine", this is your mode.
32	<i>Warm Room</i>	A warm room reverb is always a popular option for just a touch of subtle sweetening.

Chord Recognition



The chord recognition with its artificial intelligence is basically the brain of *VG IRON 2*. Without having a song key selected, you are able to input your own chords. *IRON 2* will then interpret those chords and choose a proper rock guitar voicing for you, so that you don't have to worry about the right order of the notes. As there are many possibilities of how a chord can be played on a guitar, this is really what makes the unique *IRON* rock guitarist character of this plugin.

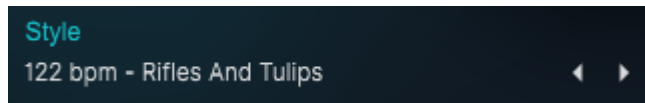
VG IRON 2 can recognize up to four notes at a time:

# of Notes Played Simultaneously	Chord Interpretation
1	Powerchord (root, fifth, octave)
2	Interval (+min2 up to +maj14)
3	Simple chord voicing
4	Full barre guitar chord

Player Mode

Style Selector

Here you choose a *Style* – the selection of phrases accessible via the *Style Phrases* range on the keyboard.



Style Selector

A *Style* in *Virtual Guitarist IRON 2* is a collection of phrases that you “ask” your guitar player to play. Styles are the “rhythmic vocabulary” of *Virtual Guitarist IRON 2*, which is why we have included over 30 of them.

You can select styles by either clicking the arrows of the *Style Selector* to skip to the previous/next style, or by clicking the name of the current *Style* to bring up the full list.

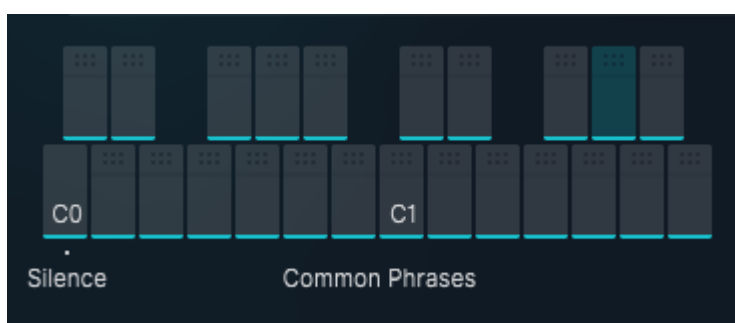
- 76 bpm - Meat Stew
- 86 bpm - Wall Of Death
- 90 bpm - Back In Blue
- 90 bpm - Where Is The Manual?
- 102 bpm - Be My Girl
- 104 bpm - Gorilla Radio
- 114 bpm - Six One One
- 116 bpm - HopScotch
- 118 bpm - Grandma Betty
- 120 bpm - Never Never Land
- 120 bpm - Arm Pit
- 122 bpm - Bottom Up
- 122 bpm - Rifles And Tulips
- 128 bpm - Walking Backwards
- 130 bpm - Song3
- 136 bpm - Three Two One
- 140 bpm - Fleas
- ✓ 146 bpm - Freedom
- 150 bpm - Black Tulip
- 156 bpm - Jokes On You
- 158 bpm - Dove For Two
- 160 bpm - Goo Bighters
- 164 bpm - Free Wheeling
- 172 bpm - Unknown
- 174 bpm - Screwed Driver
- 178 bpm - Skate Or Die
- 184 bpm - Talented Billy
- 186 bpm - Peas In Brain
- 194 bpm - The What?
- 194 bpm - Burns Quite Well

Style List

Every *Style* is a set of eleven phrases. You can select them from the *Style Phrases* area of the Interactive or MIDI keyboard.

In many Styles, Phrases are ordered by intensity from left to right (low to high). Start at C2 and work your way up to hear for yourself!

Common Phrases



Common Phrases

The lower left of the MIDI keyboard (C0 – B1) is reserved for a collection of so-called *Common Phrases*. These phrases are “hard-wired” and won’t change regardless of the *Style* you select. *Common Phrases* are more generic and versatile, so they can be applied in conjunction with various *Style Phrases* and it will always sound good!

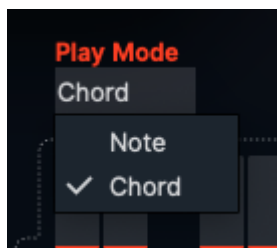
Note: Virtual Guitarist IRON 2 lets you switch phrases in real-time without interrupting the performance. That’s a great way to create dynamic and interesting phrasings of your own by quickly switching phrase keys.

Special Keys

Within the Common Phrase range, certain keys have special functions:

- The lowest key of the *Common Phrase* range (C0) is the *Silence* key – it will keep playback running, but with an empty phrase. Use it to create temporary gaps without having to restart phrases.
- The Bb1 key plays a *Slide Down* effect, while the B1 key plays a *Pick Slide* effect. Both of these serve as great ways to start the guitarist’s performance! Note that these keys still act as *Phrases* – once selected, you must then press a key from the *Play Range* area in order to hear the effect.

Play Mode



<p>Play Mode: Chord</p>	<p>This is the easiest mode. Use this mode if you want <i>IRON 2</i> to automatically interpret chords from your input and play them back to you in different styles and phrases.</p>
<p>Play Mode: Note</p>	<p>Use this mode if you want <i>IRON 2</i> to strum phrases for you while you voice it and select the notes on your own.</p>

Reference of Common Phrases

Key	Description
B1	Pick Slide
A#1 Bb1	Slide Down
A1	Off-Beat 1/8
G#1 Ab1	Build-Up Muted 1/8
G1	Muted 1/16
F#1 Gb1	Muted 1/16 Riding
F1	Muted 1/8
E1	Half-Muted 1/8
D#1 Eb2	Build-Up Open 1/8
D1	Open 1/8
C#1 Db1	Muted 1/8 Open
C1	Muted 1/4
B0	Half-Mute 1/4
A#0 Bb0	Chord Rhythm 1/16
A0	Open 1/4
G#0 Ab0	Generic Chord Rhythm
G0	Open Stops 1/4
F#0 Gb0	Single Note Rhythm
F0	Off-Beat 2 & 4
E0	Long Chord 2 & 4

D#0 Eb0	Generic Rhythm Sustain
D0	Open 1/1
C#0 Db0	Long Chord With Fill
C0	Silence

Style Phrases



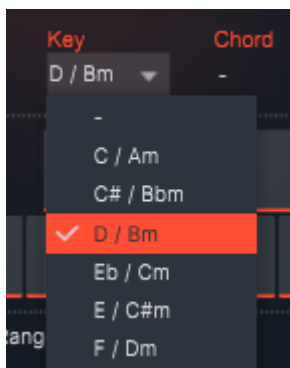
Style Phrases

Keys in the C2 – Bb2 range play phrases of the currently selected *Style*. There are 11 phrases in each of the 30 Styles, which you can freely combine with the Common Phrases.

Stop

The highest key of the Style Range – B2 – is the *Stop* key. In Latch mode, pressing this key will stop playback.

Key

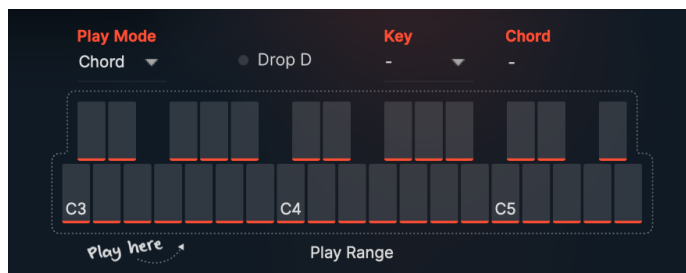


Key Selector Dropdown Menu

Select the key that your song is in from the *Key Selector* dropdown and *IRON 2* will limit your input so it only outputs chords that will sound good in the context of your song, regardless of what notes you press!

Please note that only 'power' and 'sus4' chords can be played in this mode, and you don't have the flexibility of building your own chords note-by-note. Having this limitation can be helpful, but if you wish to use the full potential of *VG IRON 2*, you don't need to limit yourself with this feature.

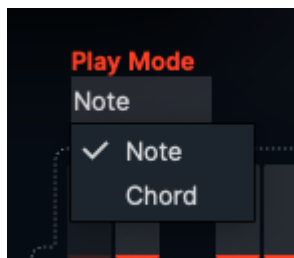
Play Range



Play Range on the Interactive Keyboard

The right section of the keyboard is the one that actually starts and stops the guitar performance and determines the notes or melodies your guitar player will play.

Play Mode: Note



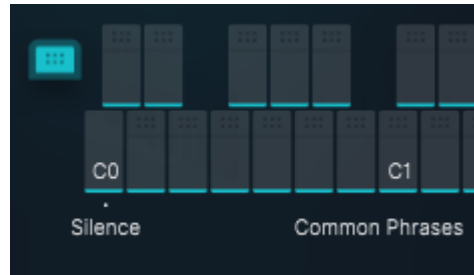
In *Player Mode* there's a new feature called *Note mode*. This mode allows you to select individual notes so you can build your own chords.

Let the *Phrases* play the rhythm while you play a single note, an interval or even full guitar chords with both hands. Keep in mind that on a real guitar each string can only play one note at a time. So if your input is not physically playable on a guitar, the plug-in may decide to omit certain notes so it sounds more realistic!

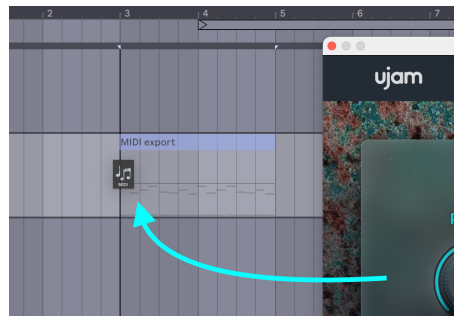
Transposing Phrases

When you transpose recorded or dropped MIDI notes from *IRON 2* in your DAW, make sure you transport only the notes in the *Play Range* section of the keyboard. Do not simply transpose the entire track altogether! Doing so will cause you to transpose the articulation and phrase selection notes, resulting in completely different playback.

MIDI Drag'n'Drop (Player Mode only)



Clicking on a drag handle ...



... and dragging it onto a position in the *IRON 2* track ...



... creates an exported MIDI copy of the phrase.

Note: This is an advanced and not necessarily easy-to-use feature. We recommend you only use it if you're ready and willing to do manual editing in your DAW!

The easiest and fastest ways to create your own phrases are by using *Player* or *Instrument Mode* to record them into your DAW.

What will usually end up in your instrument track is the MIDI notes that represent the actual notes, along with the phrase keys to go with them.

Sometimes you may really like a *Style* in *Player Mode* but want to detail-edit the notes, velocities or timing. This is where *Phrase Drag'n'Drop* will help.

You may have noticed that the keys in the *Common Phrases* and *Style Phrases* range of the interactive keyboard show little handles with six dots at the top.

- By clicking this handle and dragging it onto an instrument track in your DAW, you will create a MIDI copy of that particular phrase, pitch taken from the last notes you played in the *Play Range*.

Mixing Instrument and Player Mode

A dropped MIDI phrase will resemble what you would have recorded if you'd played this phrase in *Instrument mode*.

In fact, under the hood, *IRON 2* plays back these phrases in *Instrument Mode* while you can remain in *Player Mode* and even mix both modes in one track.

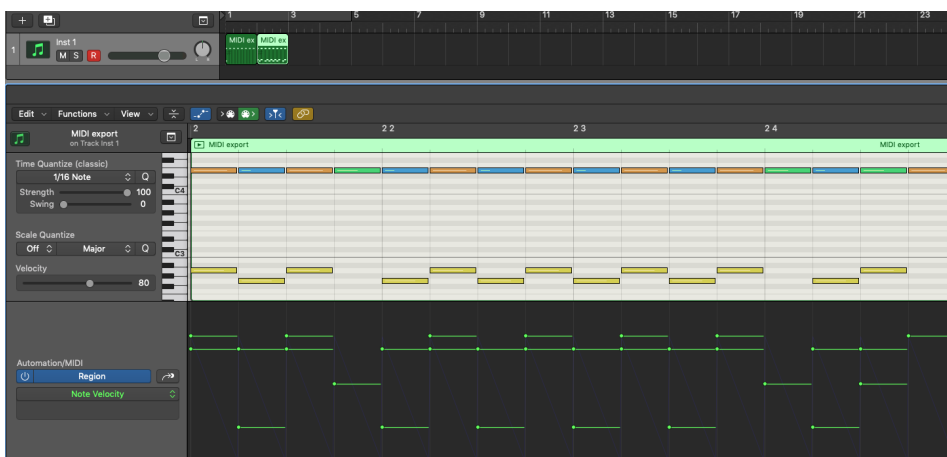
The way IRON 2 identifies dropped phrases is by the note C-2, which you will see inserted in all your dropped phrases. Make sure not to delete these note events, as that may mess up the result.

What to Do With Dropped Phrases

Here's what you can do by dragging and dropping phrases into Instrument tracks:

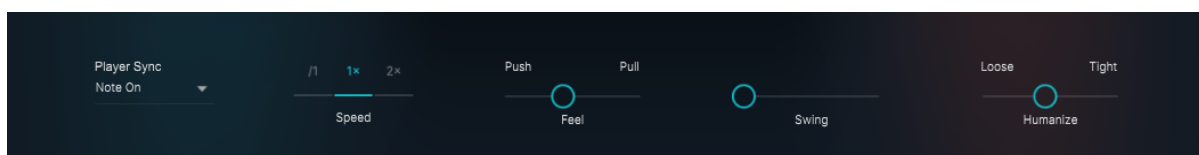
- Build a song structure by dropping multiple different phrases one after the other
- Create a melodic or harmonic structure by editing the note pitches from C3 upwards
- Change the articulations of notes by editing the black keys between Eb2 and Bb2
- Change the timing of notes by editing note positions
- Change the velocities of notes – e.g. lower them in intros, increase in verses. Velocities of the keys that are outside of the *Play Range* (e.g. *Articulation* keys) make no difference
- Use the phrase as a toolkit for building an entirely new phrase
- Use MIDI transformation in your DAW (double speed, half speed)

IMPORTANT: When you drag notes, always make sure to drag the corresponding select keys below C3, otherwise articulations might get messed up!



A typical MIDI export (here shown in Logic Pro X), with the MIDI region at the top, the note editor below showing both the notes and the select keys, as well as their velocity levels.

Micro Timing Parameters



Micro Timing Menu

- Only in Player Mode, you will find a button called *Micro Timing* on the right hand side of the middle control panel.
- Click this button to open a selection of timing parameters that you can use to adjust your *Virtual Guitarist's* performance to better suit your song.

Speed

The *Speed* switch lets you halve (0.5x) or double (2x) *Virtual Guitarist IRON 2*'s tempo relative to the song tempo.

Swing

This function, also called "Shuffle", delays the off-beats. *Virtual Guitarist IRON 2* will automatically switch the *Swing* resolution to 8th or 16th note depending on the selected *Style*

Use this control to match the timing of *Virtual Guitarist IRON 2* to a shuffled or triplet-based song. At maximum position, the off-beat will have the same timing as the last note of a triplet.

Not all phrases contain 8th or 16th note off-beats. In these cases, the Swing control has no effect.

Feel

You can tweak the feel of your guitar player's performance either towards relaxed or rushed using this control:

- As you move the slider to the left, the player will play off-beats slightly earlier, leading to a rushed or 'pushed' feel
- In the opposite direction, off-beats will be slightly delayed, creating a relaxed or 'pulled' feel

*Feel has a stronger effect when listened to against other tracks. If you're not sure what it does, try playing a drum loop along with *Virtual Guitarist IRON 2* and tweak the control. You will notice that the off-beats will play earlier or later than the off-beat drums (usually hi-hats or snares) as you turn the control.*

Latch (Player Mode)



Latch Button

When *Latch* is activated, once you press a key in the Play Range, *Virtual Guitarist IRON 2* will keep playing until you press the *Stop* key.

When *Latch* is off, *Virtual Guitarist IRON 2* only plays for however long you hold the keys in the *Play Range*. *Latch* is convenient when testing or setting up sounds, and is more practical if you build a track by manually entering notes into your MIDI track.

You can use an optional Sustain Pedal as a temporary Latch. Lifting the sustain pedal unlatches any notes that are no longer held, even if the Latch switch is still on.

Note: Latch behaves differently in Instrument Mode. Please read on!

Instrument Mode

If you are a skilled player and know how to play the typical phrasings and riffs of a guitar, then *Instrument Mode* might be for you, as it allows you to control rhythm, chords, play individual notes and use different articulations.

Actually, Instrument Mode is active in Player Mode too – it is the guitar model that gets played by the Player.

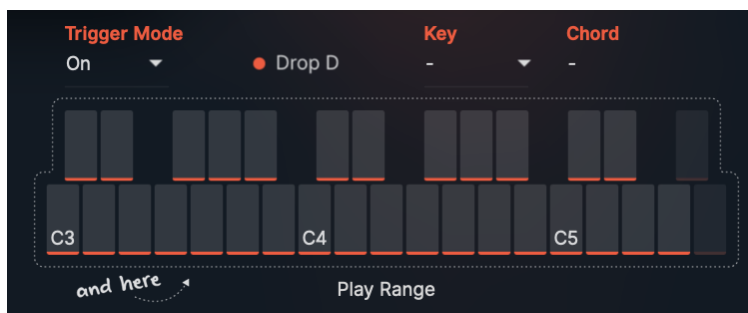
We wouldn't be surprised if playing *Virtual Guitarist IRON 2* in INSTRUMENT mode felt like your keyboard were hooked up to a mechanism playing the physical guitar.

This is because a *Virtual Guitarist* is not just a multisample, but a real model that emulates the behaviors of a physical guitar. While there's a slight amount of wanted "unrealism" in *Virtual Guitarist IRON 2*, unwanted "unrealism" of a conventional sampled guitar won't be found in *Virtual Guitarist IRON 2* – such as machine-gun effect when repeating notes, synthesized note-offs or pitching/transposition artifacts.

Playing tip: Unlike many other instruments, realistic, grooving guitar performances rely not only on the correct onset of notes, but also on their ends! A succession of long guitar notes with no pause in between is easy to play on strings, but hard on a MIDI keyboard. In these cases, try recording your guitar performance at half the original tempo – chances are this will still sound more realistic than note-length editing.

Play Range and Articulations

The first thing that is helpful to know is that you'll be using your right hand to play notes in the *Play Range* – which defines which notes you play and when – and your left hand to play notes in the *Key Switches* range to control the *Articulations*, which define how these notes get played (i.e. as dead, muted, half-muted, or sustained notes).



Play Range in Instrument Mode

The *Play Range* of the Interactive Keyboard is inspired by a regular six string rock guitar – it ranges from C3 to F5 on the virtual keyboard, but actually represents the note range D2 to F4.

The *Play Range* is where you play the guitar like any MIDI instrument, up to four-note polyphonic and velocity-sensitive.

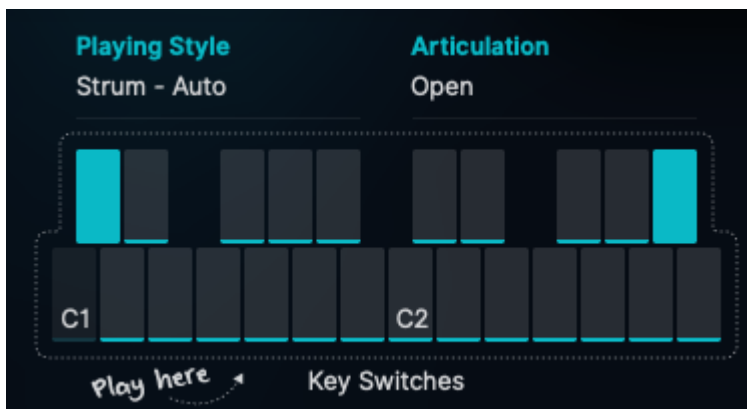
Articulation

Use the black keys from Eb2 to Bb2 to select the articulation of the guitar.

One of the most important techniques used to create rhythmic patterns is damping the strings with the thumb-ball of the right hand, varying length and harmonic content of the note. *IRON 2* offers four different articulations plus velocity sensitivity for a large expressive range:

Note	Term	Description
Eb2	<i>Dead Notes</i>	Unpitched, extremely short notes, usually used as rhythmic fillers and stops
F#2	<i>Muted</i>	Short but pitched notes
G#2	<i>Half Muted</i>	Slightly longer pitched notes
Bb2	<i>Open</i>	Undamped long sustained notes

Key Switches



Key	Articulation
B2	Strum – Auto
A#2 Bb2	Strum – Open
A2	Picking
G#2 Ab2	Strum – Half Mute
G2	Picking
F#2 Gb2	Strum – Mute
F2	Picking
E2	Picking
D#2 Eb2	Strum – Dead
D2	Picking
C#2 Db2	Release
C2	Picking
B1	Downstroke

A#1 Bb1	Stop – Downstroke
A1	Upstroke
G#1 Ab1	Stop – Upstroke
G1	Pick Slide
F#1 Gb1	Disable Articulation Strumming
F1	Slide – Up & Down
E1	Slide – Down
D#1 Eb1	Trigger Mode: On
D1	Slide – Up
C#1 Db1	Trigger Mode: Off
C1	

This is how you use it:

- In *Player Mode*, activate *Latch*. This makes it easier to test features, as the instrument will keep playing for you once you select a note or chord.
- Hold any notes in the *Play Range (Fretboard)*
- While holding notes, hit the keys in the *Articulation Range* to trigger the respective events.

Trigger Mode

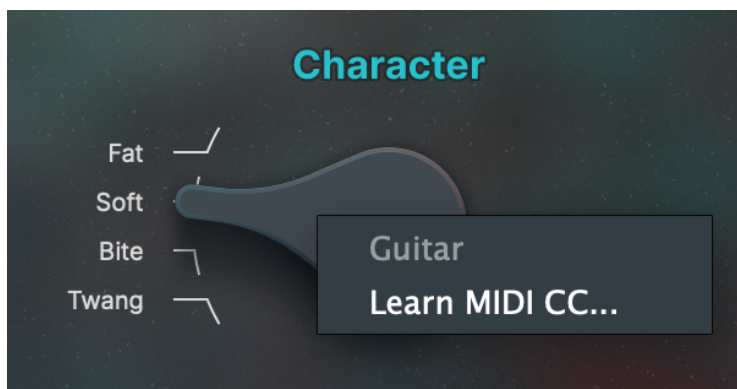


<p>Trigger Mode: ON</p>	<p>Play your own rhythm phrasing while instantly triggering chords in the Play Range on the right and use the Key Switches on the left to control strumming, chord note picking and articulation.</p>
<p>Trigger Mode: OFF</p>	<p>This mode allows you to select notes on the Fretboard on the right without instantly triggering a sound. Hold a chord and use the Key Switches on the left to control strumming, chord note picking and articulation.</p>

MIDI Learn

Using *MIDI Learn*, you can assign any *Virtual Guitarist IRON 2* control to hardware controls of MIDI keyboards or other controllers.

To assign a control, simply right-click or ctrl + click a control in *Virtual Guitarist IRON 2* to open the 'MIDI Learn' context menu of your DAW.



Automation

Almost all controls in *Virtual Guitarist IRON 2* can be automated. In combination with the phrase select keys this is a very powerful way of creating more dynamic performances. For example, automate *Finisher*, *Stomp Box* or *Drive* with faders to create dynamic transitions, or switch-automate *Amp* and *Character* to drastically change the sound throughout your song.

For instructions on how to activate Virtual Guitarist IRON 2 parameters for automation, please refer to your DAW's user guide.

I Have Questions! Where Can I Send Them?

Please [submit a request](#) to our support staff! Don't hesitate, we're eager to help you out and learn about your opinions and suggestions. Many improvements and products have been influenced by our user community.

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