



# VIRTUAL DRUMMER

## Rack Extension User Guide

SOLID

HEAVY

PHAT

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# Welcome to Virtual Drummer Rack Extension



## *Virtual Drummer HEAVY*

Thanks for trying, choosing or cross-grading to Virtual Drummer Rack Extension. We hope these powerful virtual instruments will provide years of fun and great drum tracks for you!

At the heart of all Virtual Drummers is the idea that you can create professional sounding instrument tracks exactly the way you would get them from a drummer in the studio. There, you'd give them a lead sheet, adjust sound character and mix, and tell your player what kind of musical style and performance you're expecting, and a great player would deliver exactly that.

A Virtual Drummer does that too: the song parts become MIDI notes in Reason there are controls for drum kit and mix, you load styles and select parts in real-time, there are performance controls to vary the performance, and last but not least you can choose from a variety of adjustable mixing console settings.

Whatever a Virtual Drummer does, it does it extremely well, fast, and asking absolute minimal effort of you. We never sacrifice instant gratification and simplicity in favor of a more complex result!

# About the Virtual Drummer Series



Almost exactly three years after A-List Drummer by Propellerhead came to life, the time has come to retire the A-List Drummer and welcome the new-and-improved Virtual Drummer Rack Extension from UJAM! Since their launch as VST, AU, and AAX plug-ins in 2017, Virtual Drummers SOLID, HEAVY and PHAT have become best sellers within the UJAM range of virtual instruments, because they make producing great sounding custom drum tracks really easy, with a frustration-free and fast workflow and authentic and professional results.

With Virtual Drummer 2 launched in July 2019, we upgraded all drummers with the top features requested by our user community and are now bringing those upgrades to Reason. Check the next chapter for a quick overview of what we added.

## What's new in Virtual Drummer Rack Extension?

Here's a quick rundown of the new or upgraded features in Virtual Drummers:

### Improved Individual Audio Outputs



With the improved individual outputs, you can route any instrument or channel from Virtual Drummer to separate channels on Reasons mixer. This way, you can use the full multi channel mixer functionality of Reason with Virtual Drummer if you want to go deep, or just route individual signals into special effects processors.

## Instrument and Ambience Channels



In every drum Instrument Channel, you can now select between various drum instruments, and adjust the tuning and decay. This way, you can either just replace or adjust the Kick or Snare, or build entirely new kits and save them with your presets. In the Room and Overhead Channels, there's now an additional compressor as well as Hi Pass and Lo Pass Filters greatly extending the ways you can tweak those signals for the overall drum mix.

## New Styles and Presets

Virtual Drummer Rack Extension now comes with the equivalent styles, grooves and presets known from Virtual Drummer 2. With over 200 sound presets covering 60 musical styles and a total of 1380 different drum patterns that you can mix and match, we're sure you will have what you need to produce top-quality music. Upon user request, we put a particular focus on live feel, for an even stronger impression of a real drummer playing.

*Note: Version 2 Styles are marked "(2.0)" in the Style list!*

## Enhanced Mixer Section



The Mix Preset and Amount Controls of A-List Drummers – which under the hood control a 12-bus mixing console with multiple audio processors per channel and a mastering bus – have now been complemented by ...

- additional audio processing options for drums and ambience – in both the Room and Overhead channels, there's now a one-knob compressor and a Low- and a High pass filter.
- a new master section offering you one-knob saturation, a loudness maximizer, and a reverb selector.
- You'll hear all these new processing and tweaking options at work when you try the new presets.

## New UI – Better Look, Same Flow

The new design is a complete makeover from what A-List Drummer owners are used to, but although we've added lots of controls to the new Virtual Drummers, they're as easy and clear as before thanks to a new UI design that guides the eyes and looks even better. Additionally, the new Rack Extension UI fits perfectly into the mood and design of the Virtual Bassist and Beatmaker Rack Extensions, making you feel at home in the UJAM family.

## You and Us

Virtual Drummer was built by musicians for musicians. We at UJAM are a pretty diverse bunch – from DJ to Drummer to weekend producer to Oscar- awarded Hollywood composer. We build every product for ourselves, and, like you, we're all users of our Virtual Instruments – from Guitarists to Bassists to Drummers and Beatmakers.

This means that before we even start developing, a lot of thought and discussion goes into finding out what you, the user, will expect from the product, what problem it solves, which controls we can remove to make the product more inviting and simpler, which hurdles we can move out of the way.

Virtual Drummers are optimized for one clear, powerful purpose: To produce great-sounding drum tracks without distracting you from the complex endeavor that producing a song is.

We hope that Virtual Drummers transpire 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: [support@ujam.com](mailto:support@ujam.com)
- Visit our Facebook page: [facebook.com/ujaminstruments](https://facebook.com/ujaminstruments)
- Catch us on Twitter: [twitter.com/ujaminstruments](https://twitter.com/ujaminstruments)
- Follow us on Instagram: [instagram.com/ujaminstruments](https://instagram.com/ujaminstruments)

## SOLID, HEAVY and PHAT

Virtual Drummers all share an identical foundation, but the most important aspect is different between the titles: Each title has its own distinct personality in terms of musical genre and style, which is reflected in the name and look:

## SOLID



A gold-standard session drummer – comfortable playing all popular styles and moods with ease and reliability. Rock, Pop, Ballads - anything that needs a modern, polished drum sound and mix.

## HEAVY



A heavy hitter in the literal sense, punishing the drums with relentless weight and energy behind each hit – the basis for all sorts of rock, indie and grunge styles. Heavy drums, lots of punch and presence in the mixes.

# PHAT



A slick and funky Hip-hop drummer, producing grooves, fills and breaks straight from the street! The drums sound dry, performances lean on funky with human feel, and mixes add grunge, dirt and vintage feel to the sound.

## Why so few Controls?

We are all musicians and we know that the time for learning a user interface is better spent making music. Also, unlike many virtual drum instruments, we do not expect our users to bring in-depth knowledge about drum kits, microphones, and sound engineering – because let's admit it: We can't possibly know everything.

Therefore, the concept and user interface of Virtual Drummer are designed for maximum ease of use and minimum distraction. There is a lot of intelligence going on under the hood so you can focus on your music.

The user interface is also fail-proof in that no matter how you set up the controls of Virtual Drummer, the result will never be musically or technically wrong – and this is true without sacrificing any creative freedom.

You can trust in the fact that tracks produced with Virtual Drummer are realistic, professionally produced drum tracks.

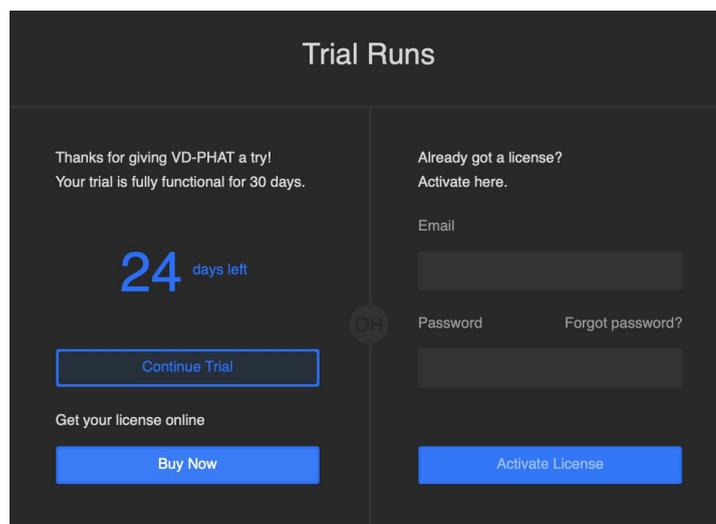
## Trial

All products in the shop are configured as trials, to initiate the download click the button “Download” in the cart.

## Trying, Buying, Authorizing

We only want you to spend money if you’re absolutely happy with Virtual Drummer. Therefore, we grant you a 30-day trial period, during which the plugin will run without any limitation. When opening Virtual Drummer during the trial period (or when clicking the Authorize button in the menu bar), you will see the following overlay which

- displays information about your trial status,
- provides a link to the shop page where you can purchase a permanent Virtual Drummer individual or bundle license, after or during the trial period,
- allows you to enter your credentials and authorize Virtual Drummer once you’ve purchased it.



*Trial Overlay*

## Controller Hardware for Virtual Drummer

Virtual Drummer requires MIDI note input for playing and recording musical performances, and optionally Pitchbend, Modulation and Sustain Pedal data for added real-time variation.

If you have a MIDI controller (keyboard or pad controller), this will be the easiest and most straightforward MIDI input method and it’s most fun as this way you control your Drummer in real-time.

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

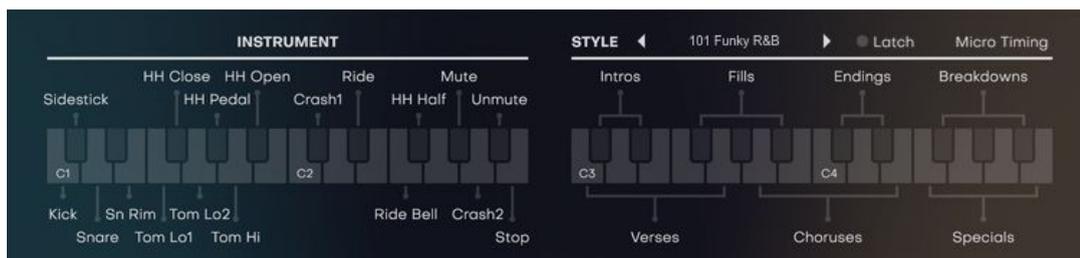
For getting to know Virtual Drummer and for testing purposes, you can also use the Interactive Keyboard in the top half of the Virtual Drummer window. This works best with the Latch function enabled.

## Start Playing!

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

Look at the top half of the Virtual Drummer window. It is dedicated to the Drummer's performance – in other words: What and how your session drummer plays.

Look at the interactive keyboard first – the left half plays individual instrument, the right half phrases and grooves.



*Interactive Keyboard*

The basic principle is simple:

- When you press the lower, dark half of keys from C3\* upwards, Virtual Drummer will start playing a phrase with the groove – conveniently named like song parts. When you release the key(s), playback will stop.
- MIDI notes below A#3 play (and display) individual drum hits.
- By turning up the Modulation wheel, you can smoothly control the intensity of the drummer's performance. This lets you create crescendos/decrescendos as well as allows you to set song parts apart from each other.

If you know these basic things and can switch presets, you know all you need to start producing with Virtual Drummer.

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

## Walkthrough

If you're pressed for time or if you already know the basic concepts behind virtual drum instruments, then this Walkthrough may be all you need for now, and you can come back later to look up more detailed explanations as you need them.

We will take a quick tour across all controls of Virtual Drummer. After this you will have a good basic understanding.

We assume you have any of the Virtual Drummers opened in Reason. Ideally you have a MIDI controller connected, otherwise use the Interactive Keyboard.

## Make a Sound and Learn About Chords and Keys

- Start Reason and open Virtual Drummer - it will load a default Style that's all you need for now – and activate the Latch button.
- Now hit key C3 on your MIDI keyboard (or on the interactive keyboard) and Virtual Drummer will start playing a Verse.
- The Interactive Keyboard plays and phrases notes when you click the lower half of each key.
- It also doubles as a display for the MIDI notes Virtual Drummer is receiving. The keyboard is divided and properly labeled with the functions of the corresponding note ranges.
- Move up the white keys to go from Verse to Chorus and other parts.

## Tell Your Player What to Play

- Now try black keys and notice how they behave differently. Intros play only once and then fall back to the previously active part, and so do Fills, while Breakdowns play while you hold them, and Endings finish off the song.
- To gradually tweak the performance, turn the Mod Wheel up and notice how the drummer gradually goes softer.
- Move the Pitch wheel up to mute the kick drum, or down to mute the snare. This is great for intermezzos and lead-ins.

## Try the Presets

- At the top of the Virtual Drummer window you can load presets. A preset is always a complete setting of Virtual Drummer, i.e. it will change the performance as well as the drum kit and mixer console setup. At this point, just go through different presets and try different Style Phrases to get an impression of the musical and sonic palette of Virtual Drummer.
- Activate the Latch button right next to the Style Bar. Now Virtual Drummer will keep playing even if you don't hold a note.
- Keep a groove playing, and go through the various drum kits on the left side. Notice how they are descriptively named from soft to hard.

## Change the Drum Kit

- Try the various level controls from Kick to Room and notice their impact on the sound of the drum kit.
- Select different drum instruments for each channel and play with the other parameters such as decay and tune. Also try the filters in the Overhead and Room channels.

## Change the Mix

- Switch the Mix Preset on the right side of Virtual Drummer. Play with the Amount control and see what difference it makes.
- Try the controls in the Master Section, such as Saturation or Maximizer.
- Finally, try the Slam Control. It's exactly what the name says: a really powerful compressor.

## Background: Styles and Phrases

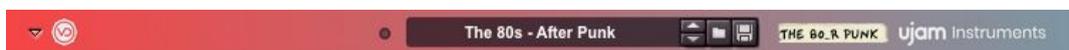
It is important to know that Virtual Drummer does neither require you to know how to play a drum kit on a keyboard, nor to think about how to emulate realistic drum techniques. It has all that built-in, simply because it is based on actual drum performances. What Virtual Drummer emulates is therefore a studio drummer who already knows how to play.

The foundation of all styles and phrases of Virtual Drummer are live performances of professional drummers. During the sessions for Virtual Drummer, hours of live performances of professional drummers were recorded to pre-recorded instrument tracks on a high-end virtual drum kit for meticulous timing and feel. Subsequently, they were optimized to match the dynamic response of the drum kits built into Virtual Drummer to re-create the groove and feel of the original performance.

But what's more: Because the actual notes, drum sounds and mixing gear are separated inside Virtual Drummer, you can play any groove with any kit, and also flexibly customize the drum track and mix to your musical taste and mix.

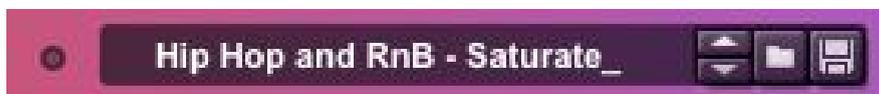
## Menu Bar

The top bar of the *Virtual Drummer* 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 Drummer* is a complete setting of the entire plug-in including Style selection and all control settings. Here's how you can switch presets:

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

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

Take your time exploring the Presets, as this is the quickest way of getting an overview of what *Virtual Drummer* can do!

If you have freshly installed Virtual Drummer, there will only be Factory Presets. User Presets will appear once you have saved your first own preset.

## Save / Save as ...

You can of course save your own Virtual Drummer presets by clicking on the floppy disk icon. You can name them and assign a category too.

The difference between the Save and Save as ... buttons:

- Save overwrites the preset with the changes you just made.
- Save as ... lets you assign a name and a category, so does not replace the current preset.

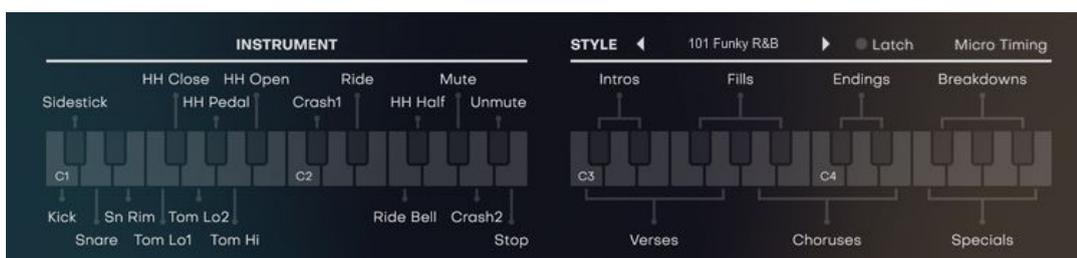
*Note: Factory Presets can only be saved using Save As ..., they cannot be overwritten.*

## Product Page, Support, Product Manual

- If you want to learn more about your Rack Extension, need to report a bug or just RTFM you need to right click on the UI. Scroll down in the overlay until you see “Visit Product Page”. Click this link to jump right to the product page. On the bottom of every product page in the shop, you’ll find a product manual and a link to Zendesk, where you can talk to our support team or ask the community of UJAM plug-in users.

## Playing Virtual Drummer

### The Interactive Keyboard



Interactive Keyboard

The Interactive Keyboard has is the heart of Virtual Drummers performances. Here you can

- Play individual drum hits (left half)
- Create entire song performances by playing Parts (right half)

### Playing Individual Drums

The left half of the Interactive Keyboard shows you which keys play which drum instrument.



Playing individual instruments is only necessary if you want to program your own drum tracks or if you want to manually add extra hits to a performance created by Virtual Drummer.

*Note: While you can test individual drum sounds on the Interactive Keyboard, these notes won't be recorded in Reason. For recording individual hits, use a MIDI controller – this has the added benefit of velocity control.*

## Mute Mode

You can temporarily exclude individual instruments from phrase playback with keys G#2 and Bb2:

- Hold key A#2 and press an instrument key to mute the instrument (exclude it from phrase playback).
- Hold key B2 and press the instrument key to unmute again.
- Note that you are still able to play the individual instrument hits while the instrument is muted. This way, you can e.g. mute the snares from phrase playback to play them manually.

## Creating Song Performances

Using the right half of the Interactive Keyboard or the corresponding MIDI notes, *Virtual Drummer* can play entire drum performances – i.e. all you need to do is tell your drummer which part to play when, and it will lay down a complete song in a specific style.

Accordingly, in *Virtual Drummer*, drum performances are organized into Styles and Parts. There are 60 styles in each *Virtual Drummer*, each covering a particular groove or rhythmic characteristic.

Styles are broken down into Song Parts: You got Intros, Verses, Choruses, Breakdowns, Fills, Endings, and bonus parts called “Special”.

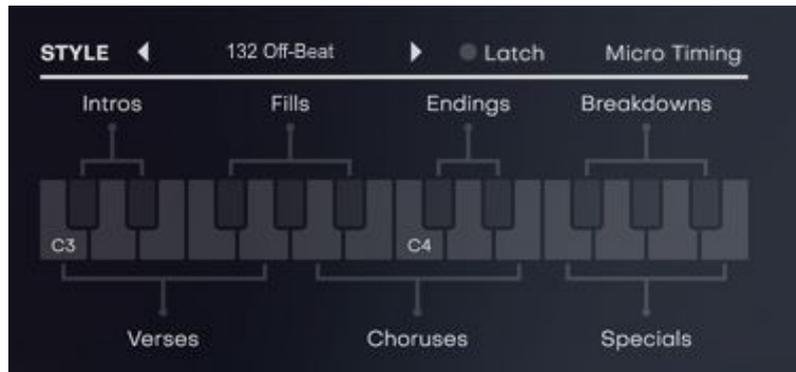
## Styles Menu



In this menu, you can select one of the 60 Styles by either clicking a name and opening the menu, or by using the arrows to step through the list.

Styles are organized by tempo (bpm) and Version 2 Styles are marked with a “ - 2.0” appendix to their name.

Each Style features 23 individual Song Parts that are displayed on the right half of the Interactive Keyboard:



*Note: Styles are not editable within Virtual Drummer.*

## Song Parts and How to Play Them

- All Parts always play in sync with Reason. This means you can jump between Song Parts freely without retriggering the Song Part. This is great for creating lively, non-repetitive drum performances.
- Of each group in the Part – Intro, Verse, Chorus and so on – there are variations, increasing in intensity as you up the keyboard. Some of those Song Parts loop, some play only once after you hit the key, while others only play while you hold a key.
- Song Parts assigned to white keys are the looping Parts – Verses, Choruses, Special. In Latch mode, they keep repeating until you hit a different key.
- Parts that start, end, or break up the song such as Intros, Fills, Breakdowns and Endings are assigned to black keys. These Parts usually play only once after you select them, or play only as long as you hold the key (in Latch mode).

White Key Part	Black Key Part	Description	How to Play
	Intro 1	Plays a short intro and continues with selected looped part.	With playback stopped, play key.
	Intro 2	Plays a longer intro and continues with selected looped part. Can be interrupted anytime by selecting a white key part.	With playback stopped, play key.
Verse 1-5		5 verse variations in ascending order of intensity.	Hit key to select. Verses keep playing until another part is selected.
	Fill 1-3		Hit key to select. While a Fill is playing, you can select the subsequent part, otherwise it will fall back to the previously selected looped part.

Chorus 1-5		5 chorus variations in ascending order of intensity.	Hit key to select. Choruses keep playing until another part is selected.
Special 1-4		Extra groove variations and "bonus" parts in ascending order of intensity.	Hit key to select. Special parts keep playing until another part is selected.
	Breakdown 1-3	Use these song parts whenever you want to temporarily vary/tone down the drum performance.	Plays immediately as long as you hold the key and falls back to previously selected part after releasing it.
	Ending 1	Plays a short ending immediately.	Hit the key at any time in the part to trigger the ending.  You may want to quantize the note after recording it.
	Ending 2	Plays a longer ending at the end of the current phrase.	Hit the key anytime, the ending will play automatically at the next possible position, playback will stop.

## Automatic Crash Cymbals

Virtual Drummer will automatically play Crash cymbals when it falls back from a Fill into a Looped Part.

Technically, the first cymbal hit (Hi-Hat or Ride) at the beginning of the part following the Fill will be replaced by a Crash Cymbal. If there is no Hi-Hat or Ride cymbal, there will be no Crash Cymbal.

*Note: You can also manually add Crash Cymbals by using the MIDI notes C#2 or A2. Make sure to quantize your Crash Cymbal events*

## Global Playback Parameters

### Latch

You find the Latch button right next to the Style menu.

If on, Virtual Drummer will keep playing even after keys are released, until either

- Latch is switched off
- the Stop button is pressed
- an Ending phrase is triggered
- or the DAW is stopped while it's playing.

*Note: A Sustain Pedal can be used as a temporary Latch (but does not affect the appearance of Latch switch). Lifting the Sustain Pedal stops the performance when no keys are held.*

## Micro Timing

Right next to the Latch button you'll find the Micro Timing button. Clicking it opens the Micro Timing Bar, offering four parameters to adjust the drummer's timing:



*Micro Timing Bar*

### Speed

This three-way switch allows you to set the drummer to half time or double time in relation to the song tempo.

### Feel

With this control you can tell *Virtual Drummer* to push or play laid back, i.e. it affects the overall timing of the drum performance. Push will gradually advance offbeats, whereas Pull will delay them.

### Swing

This knob gradually applies a shuffle feel to the drum performance by delaying the offbeats.

Depending on the selected style, 8<sup>th</sup> or 16<sup>th</sup> note offbeats will be affected. At maximum position, the offbeat will have the same timing as the last note of a triplet.

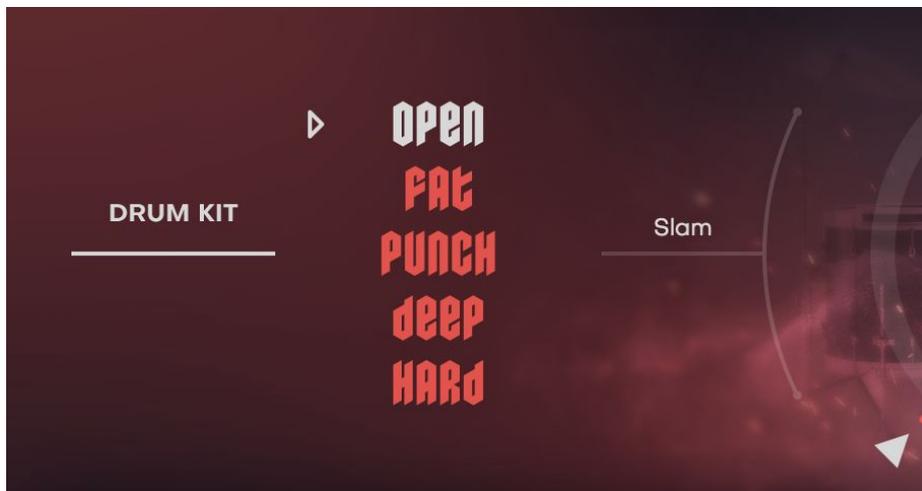
Not all phrases contain 8<sup>th</sup> or 16<sup>th</sup> note offbeats – in these cases Swing control has no effect.

### Humanize

Using this knob you can gradually quantize the drummer's performance. In the center position, the timing of drum hits will be exactly like the drummer played it when recording the performance.

In the minimum knob position, the timing will get more loose, as the subtle deviations of the drummer's performance are increased. As you turn the knob to the right, hits will get moved towards the perfect quantize grid position.

## Drumkit Section



In this section you can select a Drumkit and adjust the “Slam” – an intelligent parameter adding punch and snap to the overall sound.

## Drumkit

Choose from five different drum kits, each one representing a physical drum kit – i.e. selection of instruments (Kick, Snare, Toms...) as well as their tunings, microphone selections and settings – all adjusted to work well together as a whole.

*Note: For a detailed description of the Drumkits of your Virtual Drummer(s) please check out the Drumkit and Mix Preset Reference at the end of this document.*

## Slam

This is the virtual slider to the left of the virtual drum kit in the center of Virtual Drummer. Turn it up to gradually add “slam” (punch, snap) to the sound of your drum kit.

Technically Slam is created by multi-channel audio processing on the Instrument Channels, which distinguishes it from the Saturate or Maximizer.

## Instrument Channels



*Instrument Channel*

For each instrument (Kick, Snare,..) or group of instruments (Toms, Rides, Crashes) within Virtual Drummer there is an instrument channel that lets you adjust volume and other parameters individually.

*Note: Like all other parameters, Instrument Channel Settings will get overwritten when you load a new Preset. If you want to keep them, please save them in a Preset.*

## Selecting an Instrument Channel

To select an Instrument Channel, click the Instrument Icon.



*Instrument Icon*

The Select status will be indicated by a colored circle top right of the Instrument icon. When selected, all parameters visible in the bottom bar pertain to the selected Channel.

## Adjusting Volume

Move the tiny triangle left from the Instrument Icon to adjust the volume of that Instrument (Group).

## Selecting an Instrument Type

Click one of the letters labelled Type to select different instruments. There are up to four variations available per Instrument Channel.

## Setting Decay

By default, the Decay envelope is off (knob all the way up). Turning it counter-clockwise shortens the envelope and therefore the length of that drum instrument. Shorter decay times can make a drum sound tighter and even artificial.

## Adjusting the Tuning

You can adjust the tuning of every Instrument Channel by  $\pm 7$  semitones (or 700 cents).

## Reverb

This control adjusts the individual Instrument Channels send level to the Reverb unit in the Master Section.

## M/S Buttons

You can mute/solo any instrument channel individually for editing. The solo status is indicated by a tiny yellow dot right next to the Instrument Icon, the mute status by a red dot.

## Ambience Channels



*Ambience Channel Icons*



*Ambience Channel Strip*

The two Ambience Channels in Virtual Drummer don't carry individual instruments or effects, but are actually recorded room ambience signals from the original drum kit recording sessions:

- *Overheads* are a pair of microphones hanging left and right over the head of the drummer and picking up mainly the cymbals, but also a strong bleed signal from the other drums. Therefore, don't be surprised if you turn down individual microphones and still hear the instrument. Overheads are used to create the stereo image and pick up transients as well as a coherent mix of the kit.
- *Room* comes from a pair of microphones placed at the back of the drum recording chamber, left and right behind the drum kit. This is not a Reverb, (there's an extra control for that in the Mix section) but a dense, short room signal, great for adding depth and live feel to the drum kit.

Like the Instrument Channels, Ambience Channels can be selected, adjusted in volume, soloed/muted and sent to individual outputs. On top of that, they have three built-in audio processors allowing you to shape the Ambience signal.

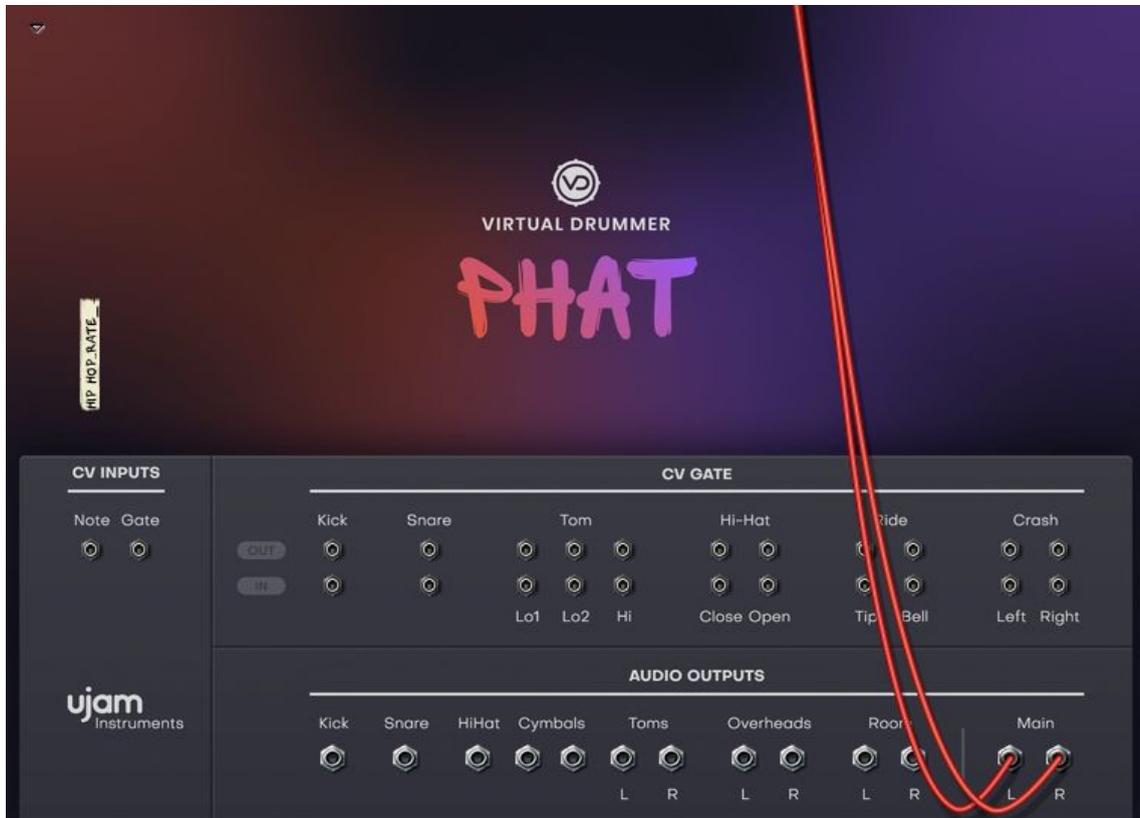
### Compressor

The Compressor lets you ... well ... compress the Overhead or Room signal, which increases the perceived density and presence of that signal even at lower levels.

### Low Pass / Hi Pass Filters

With these filters, you can gradually attenuate high frequencies (Low Pass) or low frequencies (Hi Pass) in the Ambience channels. This is useful to clean certain frequency ranges from too much Ambience, making the dry signals stick out more, or for creative purposes, e.g. by turning Overheads fully up but cut some high frequencies for a trippy synthetic effect.

## Individual Outputs



There are individual audio outputs for the drum instruments and busses inside Virtual Drummer, as well as Main audio outputs for the complete mix.

- There are mono outputs for individual instruments at the top and stereo outputs for busses at the bottom.  
Use these outputs to route individual channels into external audio devices for separate processing, bypassing the built-in Mixing Console of Virtual Drummer.
- When you connect an individual audio output, that particular channel is taken off the sum output of Virtual Drummer, before it goes into the Mix section.  
This can affect the dynamics of the stereo sum (e.g. by taking the Kick off the Slam compressor).
- When you have connected all individual audio outputs, the stereo sum of Virtual Drummer will still carry the Reverb signal so you can use this as a separate Reverb bus.  
You can select different rooms by selecting Mix presets in the Mix section. The Amount control in the Mix section will affect the Reverb sound, while Slam will not.
- To the right are the Main audio stereo outputs.  
When you create a new Virtual Drummer device, these outputs are auto-routed to the first available Mix Channel in the Reason/Reason Essentials main mixer.

## Mix Presets



This section is designed to provide you with the maximum control over the sound with a minimum set of controls – but don't be fooled: under the hood, you're programming a fully-featured mixing console with channel strips, busses and insert processors.

Each Mix Preset is a total recall setting for the internal mixing console. The Presets are selected and named specifically for the genre of your Virtual Drummer.

*Note: For a detailed description of the Mix Presets of your Virtual Drummer(s) please check out the Drum Kit and Mix Preset Reference at the end of this document.*

### Amount Knob

This is the virtual slider to the right of the virtual drum kit in the center of Virtual Drummer.

When it's all the way down, switching Mix Presets will have no effect on the output of your Virtual Drummer. Turn it up to gradually “dial in” the Mix Presets.

*What happens is that technically hundreds of individual hidden controls on Instrument, Ambience and Master busses gradually turn from their default setting towards the setting of the Mix Preset.*

### Master Section

The Master section introduced in Virtual Drummer Rack Extension gives you more detailed control over the global mix. It lets you choose a Reverb preset and adjust Reverb Level, it features a Saturate processor as well as a Maximizer, and the Volume slider now sports a Level Meter.



## Reverb

On top of the actually recorded Overhead and Room signals, Virtual Drummer also features a Reverb section letting you add convolution reverb, individually adjustable per Instrument Channel.

### Reverb Knob

The Reverb knob lets you adjust the master level for the reverb bus. It is independent from Amount control, so you're free e.g. to have a fully unprocessed kit with the large studio room from the Soft Mix preset.

### Reverb Preset

Either click on the Reverb name or use the arrows to change the Reverb program.

- By default, every Mixer Console preset also includes a reverb preset to make sure the room ambiance matches the purpose.
- In addition, Virtual Drummer offers four standard, self-explanatory reverb programs.

*Note: Keep in mind that changing the Mix Preset will overwrite your Reverb Type selection*

## Saturate

The Saturate Processor adds harmonic distortion to the master signal of Virtual Drummer, affecting the dynamic behaviour as well as the overall dirtiness of the signal. In lower settings, Saturate creates a nice little lo-fi edge, whereas in higher settings of the control the sound will become pumping and distorted – which sometimes is exactly what you want.

## Maximizer

The Maximizer is a popular audio processor that maximizes the perceived volume of a signal without actually raising it. Higher maximizer settings result in the drums cutting through a mix even at lower levels, helping you avoid internal distortion in Virtual Drummer because of too-high volume levels.

*Note: Always make sure to experiment with these for the right balance of Maximizer, Saturate and Volume settings in order to match the rest of your production.*

## Volume



Use the volume knob to adjust the audio output volume of Virtual Drummer for maintaining an optimal input level into the mixer or subsequent audio processors.

The Level Meter helps you avoid internal clipping – which is quite important because it's easy to overdrive the Master output which can lead to ugly digital distortion.

## Drum Kit and Mix Preset Reference

The following paragraphs give you detailed descriptions of the Drumkits and Mix Presets in the various Virtual Drummers.

### Drum Kits

#### SOLID

Kit	Description	Use...
Soft	Warm, soft kit, ranging from very low to mid dynamics (soft to medium hits)	... whenever you need subtle drums that don't dominate the song and where the drummer never hits hard.
Deep	Deep, full drum kit, providing a strong foundation.	... particularly in grooving acoustic music, but generally anywhere where you need the drum kit to provide bottom end and foundation.
Natural	The most natural, generic kit.	... for a wide range of styles, because it's a great starting point and very versatile. If you're unsure, start with Natural kit.
Tight	Small, tight kit, with a light, punchy snare.	... in Funk, Hip Hop, R'n'B and generally when you need the kit to support the groove with lots of punchy transients and without sounding too deep or hard.
Hard	Very punchy kit, hit extra hard, lots of attack transients	... in Rock and Modern Rock. Pretty much the opposite of Soft Kit – use this one when you need a kit cutting through with a strong foundation and

		lots of punch.
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## PHAT

Kit	Description	Use...
Dry	Warm, balanced and natural-sounding drum kit with a deep snare.	... as your go-to kit for natural, unprocessed- sounding material.
Fresh	Open-sounding kit with more room, a small open kick and a snare that glues in nicely.	... to make drums shine in sparse, uncluttered arrangements with not too many tracks.
Deep	Low-tuned, ultra-fat kit with an almost electronic- sounding kick and a snare with lots of low end.	... for 70s and generally retro dance material, but also modern pop and rock – whenever you need deep drums.
Hip	Hard-knocking sound, tuned a little higher with a resonant kick, light, almost electronic-sounding hats.	... for modern dance styles. Works perfectly with low synth basses/subs.
Fat	Natural kit with a low- thrusting kick and a fat-yet- tight snare.	... anything 4-on-the-floor and generally pop, rock and dance that needs a fat kit.

## HEAVY

Kit	Description	Use...
Open	Very natural and open-sounding kit, warm and fat, with unobtrusive snare and big toms.	... for general-purpose pop, rock and acoustic power drums.
Fat	Kit with huge force, a powerful snare and a fat, deep kick.	... for more rock-oriented material that needs a strong kick foundation and a snare that cuts through.
Punch	Tight and very punchy kit with the snare tuned high and accent on the kick, slightly more processed.	... wherever you want the drums to stick out or hold up against walls of guitars.
Deep	Low-tuned, resonant kit, played medium-hard.	... if you're after a more old-fashioned drum sound.

Hard	The hard rock kit, with a punchy rock snare and a present kick drum.	... for hard rock to metal, where subtlety would get in the way
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## Mix Presets

The combination of six Mix Presets, a Room control, Overheads control, a Reverb knob, and a Volume button gives you extremely versatile control over the drum sound without requiring any sound engineering skills.

Selecting one of the six Mix Presets will change hundreds of parameters of Virtual Drummer's mixing console 'under the hood'. Again, the preset names should be quite telling. Experiment with the Intensity slider to the left of the Mixing Console presets for a heavily processed (high setting) or subtly altered (low setting) sound.

## SOLID

Character	Description	Use for...	Room
Smooth	Tamed in the mid range, with subtle upper range. Only subtle dynamic treatment.	Acoustic, natural sounding mixes, e.g. in Songwriter, Indie or Country music.	Large studio recording room
Edge	"Rehearsal Room" sound – raw, powerful mids, medium compression, wall reflections.	Creating drums that bite, e.g. in Garage, Punk, EDM.	Drum booth with tiled walls
Retro	Tape machine and analog console kind of sound, perfect for the 70's and earlier.	Aging the sound of the drum kit, e.g. for 60s/70s impression.	Old drum booth with stone/wooden walls
Big	Sound of a big stage, subtle dynamics and EQ for a more present sound.	The typical sonic image of 80s, soft rock and ballads.	Empty rock concert hall
Power	Strong dynamic processing for extra punch, EQ-ing for presence.	All kinds of Rock.	Recording Room of a small studio
Crush	Exaggerated compression, medium EQ-ing and subtle distortion.	A crushed, "low bit-rate drum loop" sound for Punk, Sound Design, Experimental, EDM.	Concrete room

## PHAT

Character	Description	Use for...	Room
Close	Removes mid-range, adds lows and highs and generally makes the kit sound like it gets pulled closer to the microphones.	... drying out the sound of the drum kit for a super-dry, "attacky" sound.	Dampened studio recording room
Broad	Significantly beefs up kick and snare, and adds punch to the overall kit.	... material that needs punchy, beefy drums, particularly 80s/90s styles.	Drum booth with tiled walls
Bright	Adds edge and punch, making the kit sound much crisper and fresher.	... to make the drum stick out even against a lot of mid-range tracks playing.	Medium hall
Punch	Adds low end and virtually shortens the drum kit without making it artificial.	... when you need additional power but still a quite natural sounding kit.	Short, reflective booth
Rattle	Adds lower mid-range and generally makes the drum kit sound like the screws got loosened.	... creating a drumloop-like, lofi character, great for drumloop-based electronic styles.	Recording Room of a small studio

## HEAVY

Character	Description	Use for...	Room
HiFi	Big in bass and treble, attenuating the mid-range for that old-school ghetto blaster sound.	... late 70s and all 80s material, when you're after a polished, not necessarily natural sound.	Large studio recording room
Raw	Adds bite and rawness to the sound by using a combination of EQ and multiband compression.	... adding a punk flavor and making the drums stick out.	Drum booth with tiled walls
Retro	Subtly removes digital fidelity and adds a flavor of tape saturation.	... creating a vintage 60s to early 70s sound.	Old drum booth with stone/wooden walls
Punch	Exactly what the name says.	... exactly what the name says.	Empty rock concert hall
Comp	Adds punch and attack to the drum kit mainly by using a carefully tweaked combination per-instrument and master compression.	... making the transients more obvious and the drum kit more present, particularly in mix with a lot of mid-carrying instruments.	Recording Room of a small studio

Crush	Over-compression galore – add punch and sustain to the overall drum sound.	... creating the exact opposite of a natural drum kit with tons of punch and edge.	Medium hall
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## CV Inputs

The global Note and Gate CV inputs give you the same control over Virtual Drummer as a MIDI keyboard does, except you can use external rack devices for sending Gate and Note CV signals.

This is what you can do:

- Sequence song parts using a step or matrix sequencer.  
The velocity of the input CV will have no effect on drum parts.
- Add individual drum hits from a drum sequencer or the CV outputs of a drum machine such as Redrum or Kong.  
The individual drum sounds react velocity-sensitive, so that accents or various velocity levels are properly played back.
- You can sequence drum parts and at the same time add individual hits using the same device, if the device is capable of sending polyphonic notes, and allows you to map notes according to Virtual Drummer's keyboard mapping, see "MIDI keyboard layout".

## CV Gate Inputs

These inputs are trigger inputs for individual drum instruments. They are velocity sensitive. Use these to play Virtual Drummer's drum instruments from an external drum sequencer or drum machine with individual Gate outputs.

## CV Gate Outputs

Reversely to the CV Gate inputs, you can use the CV Gate outputs to send CV Gate signals to external rack devices to trigger external drum sounds from Virtual Drummer, double the Kick Drum with a bass, control effects – thanks to the rack, the possibilities are limitless.

Unlike the CV Gate inputs, the outputs are not exclusive, i.e. connecting an instrument's CV Gate output will not mute the instrument. This makes sense for many reasons: It allows you to double Virtual Drummer with external sound sources, either to create new sounds, to beef up existing ones, or to use an instrument's gate signal as a control signal without affecting Virtual Drummer's output.

If you do want to mute an instrument (e.g. replace the kick drum by a sound from Redrum), you can still turn down the corresponding Level control on the front panel of Virtual Drummer, see "Microphone levels".

## I have more questions! Where can I send them?

Please send your questions to [support@ujam.com](mailto:support@ujam.com). We will add them here eventually!