CHOY SUBSTRACTOR

INSTRUCTIONAL MANUAL







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1. INTRODUCTION: WHAT IS CHOP SUEY?

CHOP SUEY is a kick drum-sampler and -synthesizer with a unique layering workflow, that enables you to create your own kick drums with up to 3 components in a linear, temporal sequence: transient, body and tail. With its huge library of samples of these three components, CHOP SUEY enables almost infinite possible combinations of modern and classic kick drums - easily, quickly and intuitively.

The technique of sample-based kick drum layering comes from professional studio practice and is the basis for many successful productions - with CHOP SUEY, this workflow is now available for the first time in the form of a specialized plug-in.

CHOP SUEY offers detailed control over the decisive parameters of a powerful kick drum. These parameters can be edited using sample-accurate envelopes with surgical precision. The sound character can be changed significantly: whether subtle or extreme, is in your hand - there are no limits to creativity and a kick drum designed with CHOP SUEY will work well in the club.

Its intuitive drag-and-drop functions for sample import / export make CHOP SUEY a smooth-running sample editor for full visual and parametric control over your kick samples. With its extensive preset library, CHOP SUEY offers the full range of fat kicks for all electronic genres.





2. SYSTEM AND INSTALLATION

2.1 SYSTEMREQUIREMENTS

MAC OS: 10.15 Catalina and higher. Macs with an M1 processor are natively supported. Windows 7 and higher.

2.2 INSTALLATION & ACTIVATION

2.2.1 INSTALLATION UNDER MICROSOFT WINDOWS

Double-click the CHOP SUEY.exe file and follow the instructions in the installer. The VST3 plug-in folder preset in the DAW or the one selected by the user can be set as the installation path under "Select Destination Location".

After the installation, the plug-in is available in your DAW under "SINEE" as "CHOP SUEY" in the VST3 format.

2.2.2 INSTALLATION UNDER MAC OS

Double-click the CHOP SUEY.pkg file and follow the instructions in the installer. After the installation, the plug-in is available in your DAW under "SINEE" as "CHOP SUEY" — depending on the DAW, both as AU and VST3.





2.2.3 ACTIVATION

After installation, the plug-in initially runs in trial mode with some restrictions:

- Patches cannot be saved.
- The finished kick cannot be exported as .WAV using drag and drop.
- Every three minutes, the plugin generates noise for about 20 seconds.

When you have bought the plugin, you can click the "ACTIVATE" button and then follow the instructions. The plug-in is then activated, and the above restrictions are lifted.

If there is a new version of CHOP SUEY, you can simply download it and start the installer for this version. Your presets and your activation remain unaffected — you don't have to reactivate the plugin.

With the purchase of 'CHOP SUEY' you support our work — this allows us to develop further plugins, thank you very much!



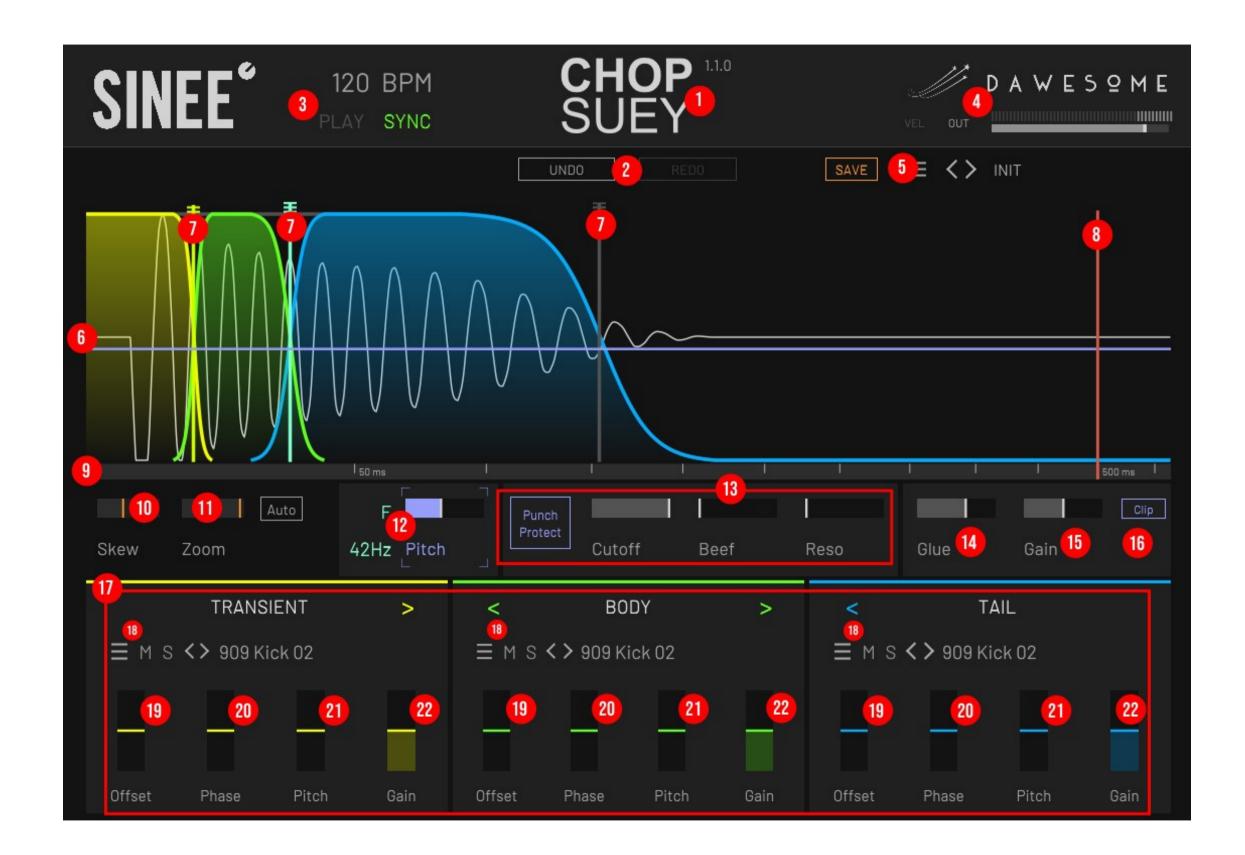


3. OVERVIEW

- In order to export a finished kick drum, you can grab the CHOP SUEY symbol (1) in the top center using drag-and-drop and save it as a finished rendered sample.
- All parameters can be fine-tuned by holding down the CTRL or CMD key.
- CHOP SUEY always plays the kick in full length, no matter how long the note is. If the kick overlaps with the next kick, the first kick is faded out (very) quickly. You can see a red line (8) in the waveform window (6), which marks the start of the next kick at 4/4. It is advisable to design the kick in such a way that it does not overlap with the following kick at your song tempo otherwise the transient can be disturbed by the overlap.
- The reworked UI design was done by Sven Stumm Interaction Design. We are very grateful and love it a lot! Feedback & ideas from our community are incredibly welcome and we give our best, to consider all constructive criticism for the ongoing, further developments of Chop Suey.







- 1. "CHOP SUEY"
- 2. "Undo" and "Redo"
- 3. Tempo/Sync
- 4. Volume/ "Out"
- 5. "Save" & "Presets"-Section:
- 6. The Waveform-Interface
- 7. The Crossfade-Sliders
- 8. Markers of the next beat (1/4)
- 9. Timeline
- 10. Skew
- 11. Zoom
- 12. "Pitch" Section
- 13. Analog Lowpass Filter Section with "Punch Protect", "Cutoff", "Beef" and "Resonance"
- 14. "Glue"
- 15. "Gain"
- 16. "Clip"-Button
- 17. "Transient", "Body" and "Tail" Section
- 18. The respective drop-down menu of the "Transient", "Body" and "Tail"-sections
- 19. Offset
- 20. Phase
- 21. Pitch
- 22. Gain





1. "CHOP SUEY"

Allows the export of the finished kick drum via drag'n'drop as a .WAV file.

2. "UNDO" AND "REDO"

Undoes the last work step or repeats the work step that has been undone.

3. TEMPO/SYNC

"BPM": Shows the current plugin-internal tempo.

"Play": Plays the kick as a 4/4 loop at the selected tempo.

"Sync On/Off": Activates the synchronization of the plug-in tempo with the DAW.

4. VOLUME/"OUT":

Master Out Controller: Adjusts the output signal of the plug-in. Double click for a default value of -12dbfs.

Output Level: Shows the volume of the output signal of the plugin. The display turns red when the output signal exceeds Odb.

"Vel": Activates the MIDI velocity modulation in CHOP SUEY. When the button is activated, CHOP SUEYs volume reacts dynamically to the MIDI input velocity. If the button is deactivated, the MIDI velocity is ignored.



CHOP SUEY

5. SAVE & PRESET - SECTION:

"Save": Saves/updates the selected or created preset. The symbol is orange if the patch contains changes that have not yet been saved.

Otherwise the symbol is shown in white.

THE "SAVE & PRESET" - DROPDOWN - MENU:

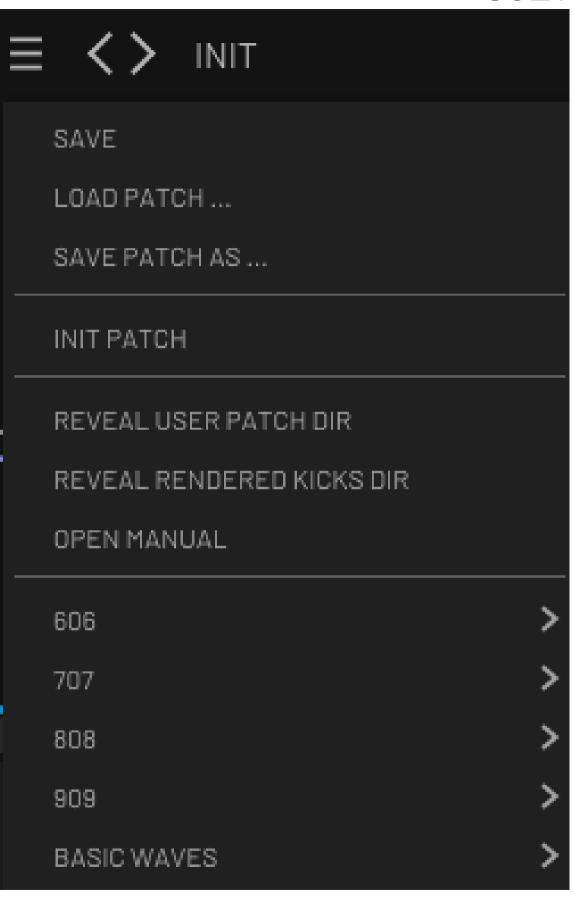
"Load Patch": Opens the preset memory.

"SAVE PATCH AS": Allows for renaming or saving presets for the first time.

"init patch": Initiates the plugin with the default settings. Loads the INIT preset, including the INIT samples. To just set the parameters to their default settings and keep your own loaded samples, see "Init Transient / Body / Tail" below.

"Reveal User Patch Dir": Shows the path in which the user presets are saved.

Under Windows this opens an Explorer window, under Mac OS a Finder with the corresponding directory is opened.







"Reveal Rendered Kicks Dir":

Shows the path of the folder selected by the user for rendered kicks.

Good to know: If you drag rendered kicks directly into the DAW, the behavior is slightly different - depending on the implementation in your DAW. Some DAWs can move the rendered wav directly into the project folder. In this case, CHOP SUEY will not keep a copy. Other DAWs create a copy of the wave in the project folder - in this case the kick rendered by CHOP SUEY remains in the corresponding folder.

"Open manual": Never Mind;)

Factory Presets ("606", "707", (...), "HEAVY", ETC): The set of presets CHOP SUEY comes equipped with.



"User": The presets created by the user.

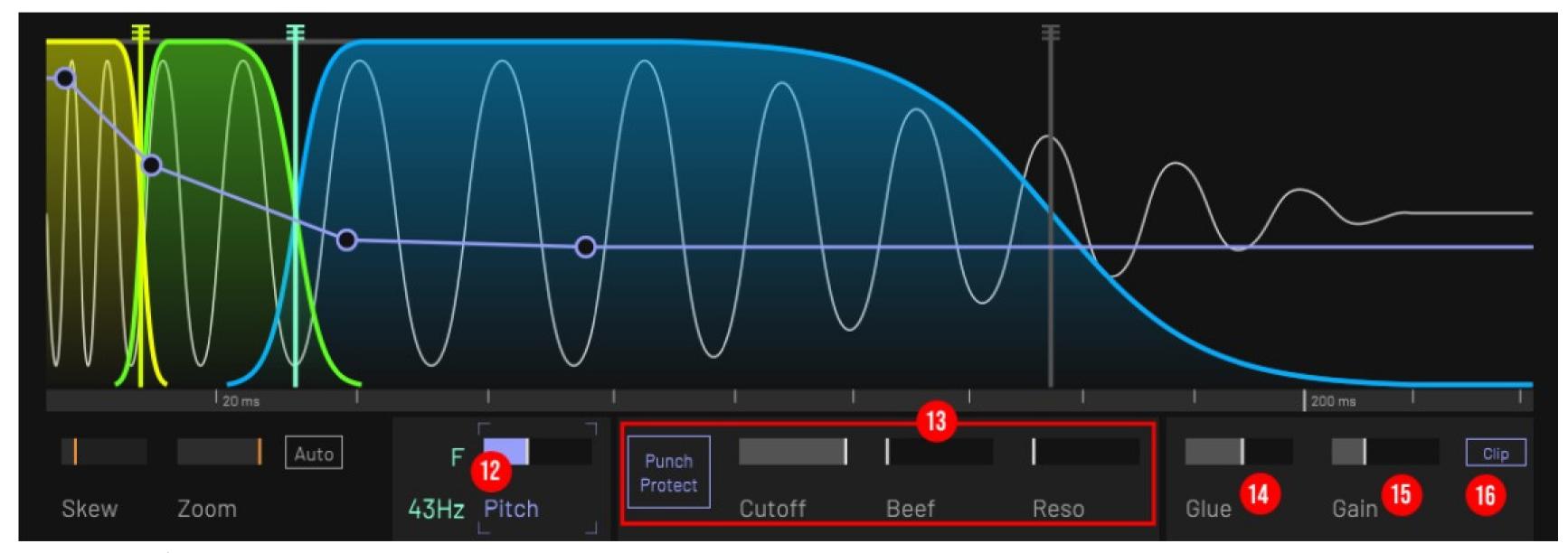
Arrow buttons: Allows you to navigate through the presets.





6. THE WAVEFORM - INTERFACE:

Divided in **Transient**, **Body** and **Tail**. In the waveform interface of the plug-in, the envelopes of Pitch (12), Cutoff (13), Resonance (13), Beef (13), Glue (14) and Gain (15) are displayed, if these are selected by clicking on the respective parameters. With a double click, you can add any number of anchor points with which gradients can be drawn. The displayed waveform corresponds exactly to the real-time rendering of the sample as it would appear during export.







7. THE CROSSFADE - SLIDERS:

The crossfade slider shifts the division of transient, body and tail sideways.

The steepness of the crossfade curves is adjusted by pulling the sliders heads up and down.

The crossfade curve on the far right (in dark gray) limits the length of the sample and serves as a fade-out.

8. MARKER OF THE NEXT BEAT:

The red line symbolizes the next beat (quarter note) at the selected tempo.

This serves as a guide when choosing the right length of a kick drum.

9. TIMELINE:

Shows the passage of time in milliseconds. Is compressed by "Skew", with a relative enlargement of the transient area. With a held mouseclick on the timeline, an up- and down-motion enables to zoom in and out on the waveform. A sideways motion enables "skewing" in and out on the transient area. A double-click auto-zooms in or out on the full length of the current waveform.





10. "SKEW":

Compresses the time axis, increases the relative zoom to the transient area of the waveform interface. This is shown visually in the time axis: the small lines always stand for the same time interval, as with a ruler. When the skew is activated, these are visually shown further apart in the area of the transient and narrower in the tail area.

Pro Tip: The transient is of crucial importance for the sound of a kick drum - but only affects the first few milliseconds and is therefore difficult to edit with classic tools. In CHOP SUEY, the transient can be visually broadened using "Skew" - and can then be finely edited.

11. "ZOOM":

Enables you to zoom in on the waveform. Focuses on the transient area.

"Auto": Automatically displays the waveform of the sample in full length.

Good to know: The easiest thing to do, is to set "Skew" to maximum and then press "Auto". That way you have the entire kick in the overview and are still able to edit the transient precisely.





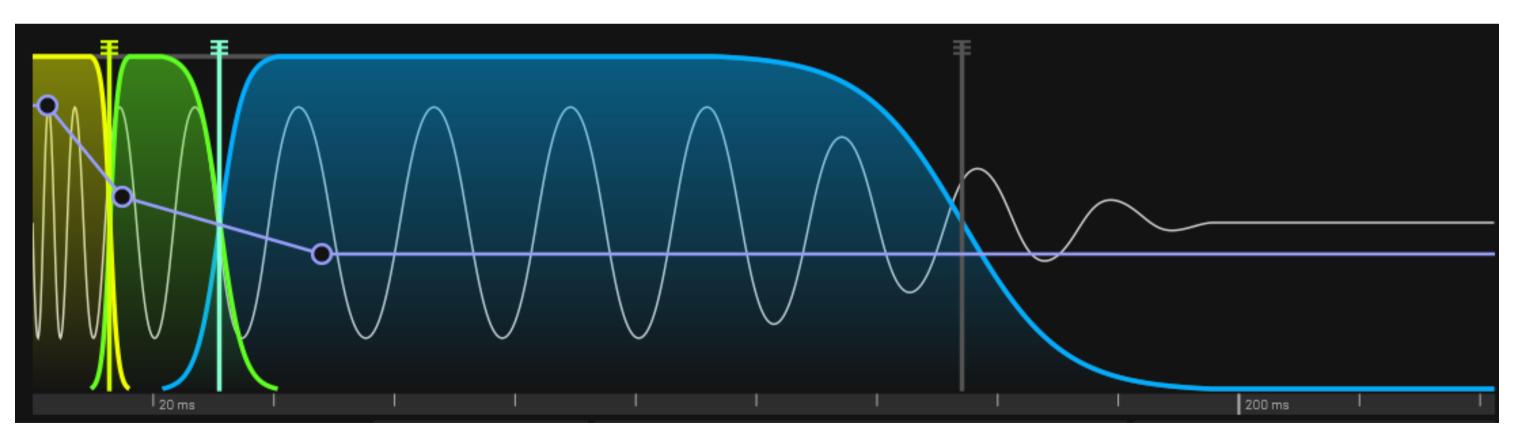
12. "PITCH"-SECTION:

Pitch - Display: Shows the fundamental frequency and the corresponding note of the sample.

Good to know: The pitch of a kick in the transient can be determined theoretically, but has little to do with the perception of the actual pitch. The pitch detection in CHOP SUEY is therefore always based on the last 100 ms of the kick drum. With a kick it is limited to the tonal "body" / "tail" area.
"**Pitch":** The pitch control allows you to adjust the pitch of the loaded sample. Can be modulated as an envelope in the waveform interface.

The pitch control can be fine-tuned holding down the Ctrl / CMD key.

Pro Tip: Many Kicks have a clear pitch curve: You start with a very high pitch, which very quickly drops to the actual pitch. Depending on the length and course of this curve, there are very different sounding transients. Used correctly, it can also add punch to a kick - it's often worth playing with this curve.







13. ANALOG LOWPASS FILTER SECTION:

CHOP SUEY contains a lowpass that simulates an analog filter with resonance. This filter is specially optimized for the requirements of a kick drum - for example, the filter reacts very quickly to changes in the cutoff frequency - so very typical, electronic kick drums can be created.

"Punch protect": Protects the low frequencies that are important for the "punch" of a kick drum from the analog lowpass filter. For this purpose, the signal is divided into two bands: The bass range (below approx. 150 Hz) remains unaffected by the effect of the filter, while the range above 150 Hz passes through the filter.

Good to know: Splitting the signal like this also changes the phase of the sample. If you want pure and unchanged playback of a loaded sample, make sure that Punch Protect is deactivated or the filter cutoff remains at 100%. Punch Protect is only active when the filter cutoff is below 100%.

"Cutoff": The filter cutoff of the resonating analog lowpass filter. Can be modulated as an envelope in the waveform interface. If the filter cutoff is set to 100%, the filter is skipped, i.e. Punch Protect, Beef and Resonance also have no effect.

Good to know: You can activate the filter by setting the cutoff to 99% or clicking an anchor point into the envelope - the filter is then active and the cutoff is still at a frequency beyond 20khz.

"Resonance": Adjusts the intensity of the resonance of the analog lowpass filter. Can be modulated as an envelope in the waveform interface.

"Resonance" is only active when the filter cutoff is below 100%. Since Version 1.1, "Resonance" can be used to trigger self-oscillation of the low-pass filter. This enables Chop Suey for kick-synthesis in the style of analog drum-synthesis. Read more on page 23.

"BEEF": Adds saturation to the signal in the feedback path of the analog lowpass filter. Only works if the filter cutoff value is less than 100%. Can be modulated as an envelope in the waveform interface.





14. "GLUE":

Adds warmth and punch to the signal in the form of an analog modeled distortion. Can be modulated as an envelope in the waveform interface.

15. "GAIN":

Allows you to adjust and modulate the signal strength of the kick. Can be modulated as an envelope in the waveform interface.

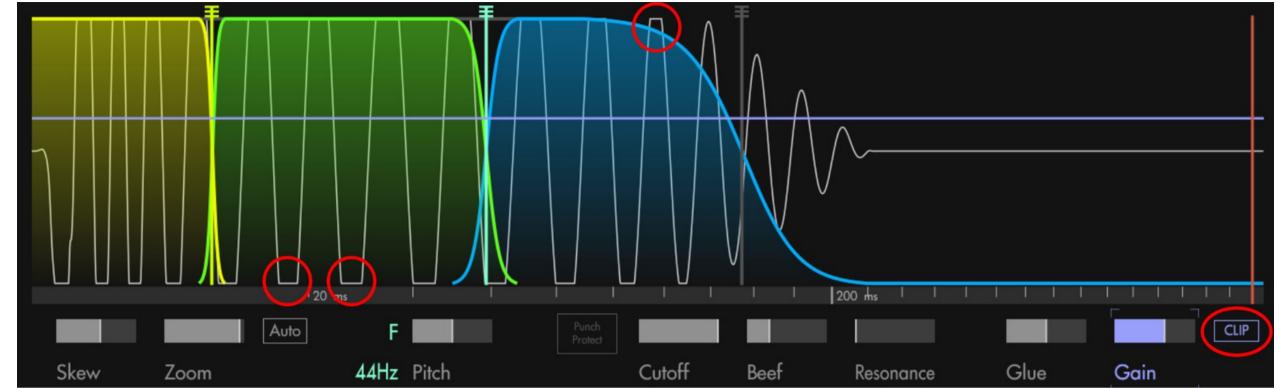
Caution! In the signal chain there is a clipper after gain (which can, however, be deactivated). Therefore, "Gain" does not act as a pure output volume control, but as a creative tool, with which you can control the entire kick or even individual waves into the clipping - that creates fat punch exactly where you want it. The pure output signal of the plugin can be regulated via the "Out" control in the upper right area of the user interface (see 4. Signal flow).

16. "CLIP":

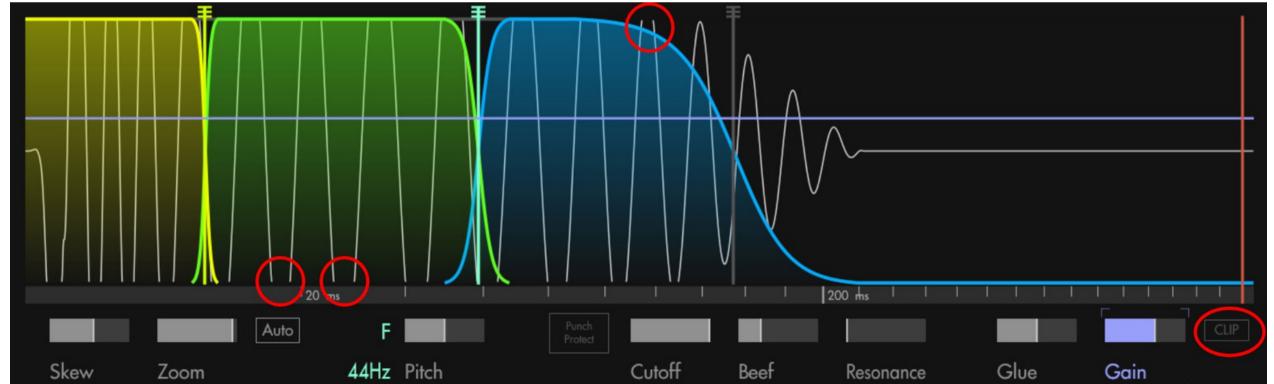
The hard-clipping of the waveform activated by the "Clip" button is visually recognizable (a) on the basis of angular compression of the waveform at the upper and lower limit when the level of the sample exceeds 0 db. This effect is audible as a significant distortion of the signal - good for fat kicks with a strong punch.







a)
"Clip" activated: Waveform is being
compressed and distortion becomes
audible.



b)

"Clip" deactivated: waveform is NOT compressed, the signal stays unimpaired, but exceeds the threshold of Odb. Attention! This might lead to signal-spikes in the chain after the plugin.







17. "TRANSIENT", "BODY" AND "TAIL" - SECTIONS:

"Transient": This section allows the selection, modification, and manipulation of the transient samples and influences the "Transient" area of the waveform interface. Audio samples can also be loaded here using drag and drop. **Pro Tip:** The "Transient" are the first few milliseconds of a kick drum. It has an important influence on the sound character of the kick. It is often rich in overtones and usually contains very high frequency components - but only for a minimal period.

"Body": Enables the selection, modification and manipulation of the "Body" samples and influences the "Body" area of the waveform interface.

Pro tip: The body of a kick determines the punch and penetration of a kick.

"Tail": Enables the selection, modification, and manipulation of the "Tail" samples and influences the "Tail" area of the waveform interface.

Pro tip: The kick fades away in the tail area - this can happen quickly or slowly, depending on the style. Most tails contain few overtones and are similar to a (deep) sine wave. The tail is especially important for perceiving the pitch of the kick.

External samples can be loaded into the respective areas (transient, body and tail) of the waveform interface via drag'n'drop.

There are some **double arrows** in the plugin. These can be used to use the same sample in different slots:

A click on the double arrow next to "Transient" loads the sample loaded or stored in "Transient" into the "Body" section of the plug-in.

A click on the two double arrows to the right and left of "Body" loads the sample loaded or stored in "Body" into the "Transient" or "Tail" section of the plug-in. A click on the double arrow to the left of "Tail" loads the sample loaded or stored in "Tail" into the "Body" section of the plug-in.

Good to know: If you click on the name of the sample, all samples that are in the same directory are displayed and the next sample can be selected quickly and easily.





18. THE RESPECTIVE DROP-DOWN MENU OF THE "TRANSIENT", "BODY" AND "TAIL" SECTIONS:

"Open File": Gives access to the samples in the selected Transient / Body / Tail folder, or enables samples to be loaded via the Explorer / Finder. Alternatively, you can select samples using drag and drop or click on the name of the sample to select another sample from the same directory.

"Init Transient/Body/Tail": Sets all four controls of the respective area to standard settings. But keeps the loaded sample.

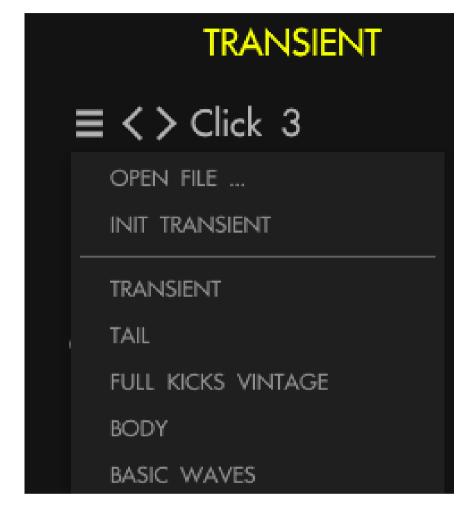
"Reset Folder History": Deletes all folders added by the user and resets the folder overview to the default settings.

"Transient", "Body", "Tail": Opens the "Transient"/"Body"/"Tail"-Folder.

"Full Kicks Vintage": Opens the samples folder with retro drum machine samples. Including: TR-606, TR-707, TR-808, TR-909 and LinnDrum LM-1 and LM-2. These are full kick samples and not dedicated "transient", "body" or "tail" samples. Like all other kick samples, the vintage kicks can easily be loaded into the individual component areas.

"Basic Waves": Opens the "Basic Waves"-folder with the 4 basic waveforms: Sine, Triangle, Saw and Square - wave.

Arrow buttons: Allows you to navigate through the samples. A click on the name of the selected sample also opens the respective sample folder.



19. "OFFSET"

Allows you to shift the start point of the waveform so that the sample starts sooner or later.

20. "PHASE"

Shifts the phase of the loaded sample - mainly to adapt to the following/preceding sections.

21. "PITCH"

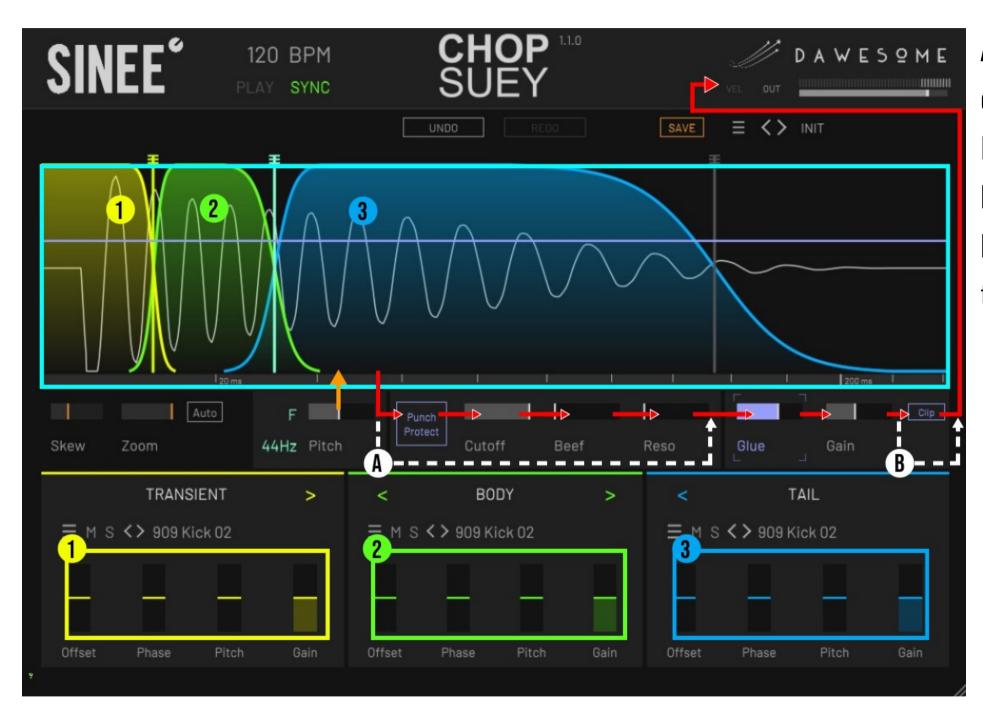
Allows you to change the pitch of the loaded sample.

22. "GAIN"

Adjusts the playback volume of the loaded sample.



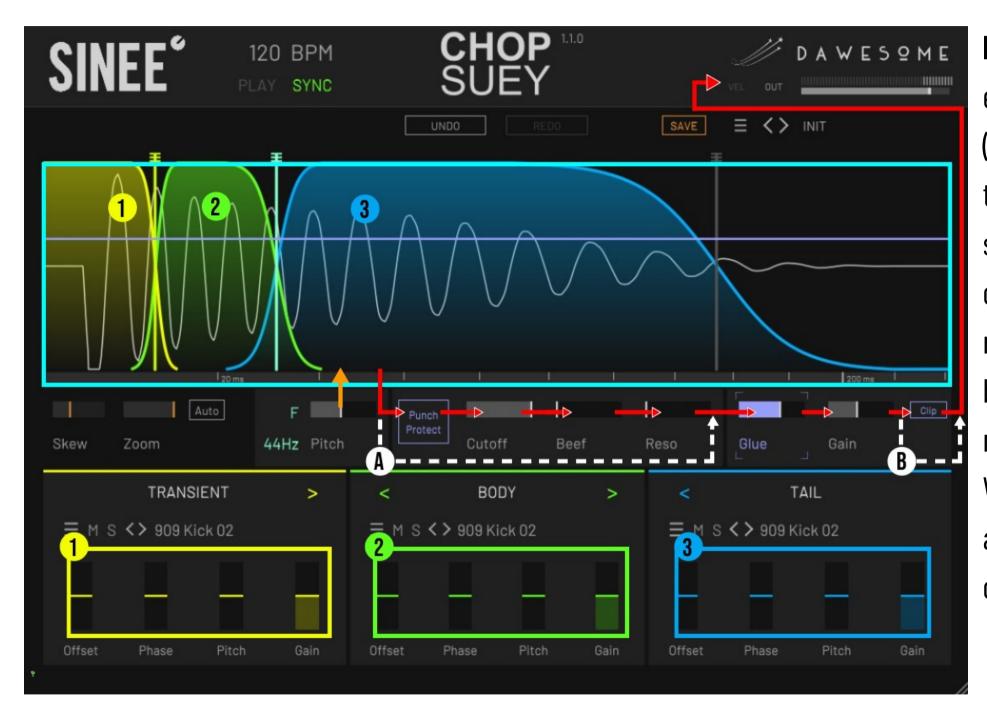
4. SIGNALFLOW



A: The filter chain (Punch Protect, Cutoff, Beef and Resonance) is disabled when "Cutoff" is set to 100% with no anchor point selected. If Punch Protect is activated, the filter section splits the signal into a high and a low band (crossover frequency ~ 150Hz). Only the high band is sent through the filter, the low band and thus the "punch" of the kick drum remain unaffected.







B: Clip button: If the clip button is activated, the Hard Clipper ensures before the output that all peaks above the OdB-threshold (represented visually internally by the upper and lower boundary of the waveform Interface) are cut off. This clipping becomes audible as severe distortion. Gain controls the input volume of the signal to be clipped. If the clip button is deactivated, any level peaks above Odb remain unaffected. With the output control (4) the output volume can be reduced and thus it can be avoided that peaks exceeding Odb do not cause distortion in the further signal chain outside the plug-in. When the "Clip" button is deactivated, the "Gain" control no longer has a sound-coloring effect and is virtually obsolete as a second output control.



5. WORKFLOW-TIPPS

Rough guide value for the length of the respective kick components:

"Transient": Start Oms, End 10-20ms.

"Body": start 10-20 ms, end 50-100 ms.

"Tail": Start 50-100ms, End: Defined by the outer crossfade slider.

The correct, phase-pure merging of the 3 components is adjusted using the "Offset", "Phase" and "Pitch" controls. In the best case, you work your way forward from the "transient" to the "tail" from left to right, ie first you see that the "transient" flows smoothly into the "body". Then that the "body" passes into the "tail" section. Care should be taken to ensure that the volume in all three sections is approximately the same.

CHOP SUEY allows you to create long and short kick drums. The length of the tail can be set in detail with the adjustable "gain" envelope and the freely adjustable anchor points (double-click on the envelope). It is also possible to create a bass groove by using the anchor points and fine-tuning the tail. Bass one shots, subs and rumbles are also suitable as a tail.

Even if CHOP SUEY is equipped with an extensive library of samples and presets, its conception should encourage much more to load your own samples via drag-and-drop. The goal here can be to create fusions of your own drum samples and export them for further use via drag-and-drop. CHOP SUEY is more of a kick drum editor than a preset instrument. Is z. B. also the fusion of the individual components of the kick drums of popular vintage drum machines. Why not create the vintage super kick, e.g. B. from the transients of the LinnDrum LM-2, the body of the TR-909 and the tail of the TR-808 kick drums?

Since version 1.1, the effect of the filters "resonance" has been amplified to the point where it sets off a self-oscillation in the filter, enabling for kickdrum synthesis in the style of analog drum synthesizers. For this purpose, choose a transient and set both the "body" and "tail" sections' gain to 0. Move the "cutoff"-controller to a very low frequency (around 40-50 hz), choosing the fundamental frequency of your kick. Proceed with carefully (!) turning up the "resonance"-controller, close to its maximum. The self-oscillation of the filter then 'synthesizes' body and tail for you. With the "cutoff"-envelope, you can now draw the pitch-envelope of your kick. The kickdrum can further be edited with "Beef", "Glue" and "Gain", exported and imported back into the plugin. Make sure to load the INIT-preset before importing your kickdrum back in, to ensure unimpaired playback of your sample.



6. ABOUT US

Peter V / DAWSOME

Two hearts have always been beating in my chest: on the one hand, I love music - I play the bassoon and contrabassoon and make music with DAWs, samplers and synthesizers. On the other hand, I love mathematics and am passionate about developing software. A good two years ago I brought these two things together and founded Dawesome - with the aim of developing innovative plugins that are above all inspiring and intuitive. CHOP SUEY is my second plug-in and was created together with Björn Torwellen - an ideal collaboration in which our different experiences complement each other perfectly. My first plug-in, Abyss, is a visual synthesizer - different sounds are represented by colors - it's easy, fast and, above all, it's fun!

Björn Torwellen / SINEE

The SINEE Studios from Cologne stand for passionate music production. Since 2018 we have been campaigning for the wishes and goals of the community, preparing knowledge and many years of experience in video format and making them accessible to a broad mass. Our portfolio ranges from online courses to high-quality sounds & samples and live streams. In this way, we at SINEE combine knowledge transfer with an entertainment program for a young and interested target group. With our new CHOP SUEY plug-in, we are fulfilling our wish for an intuitive kick drum sampler that also implements the workflow of our successful "Ultimate Kick Drum Guide" in a software solution.

Best regards,

Peter & Björn

