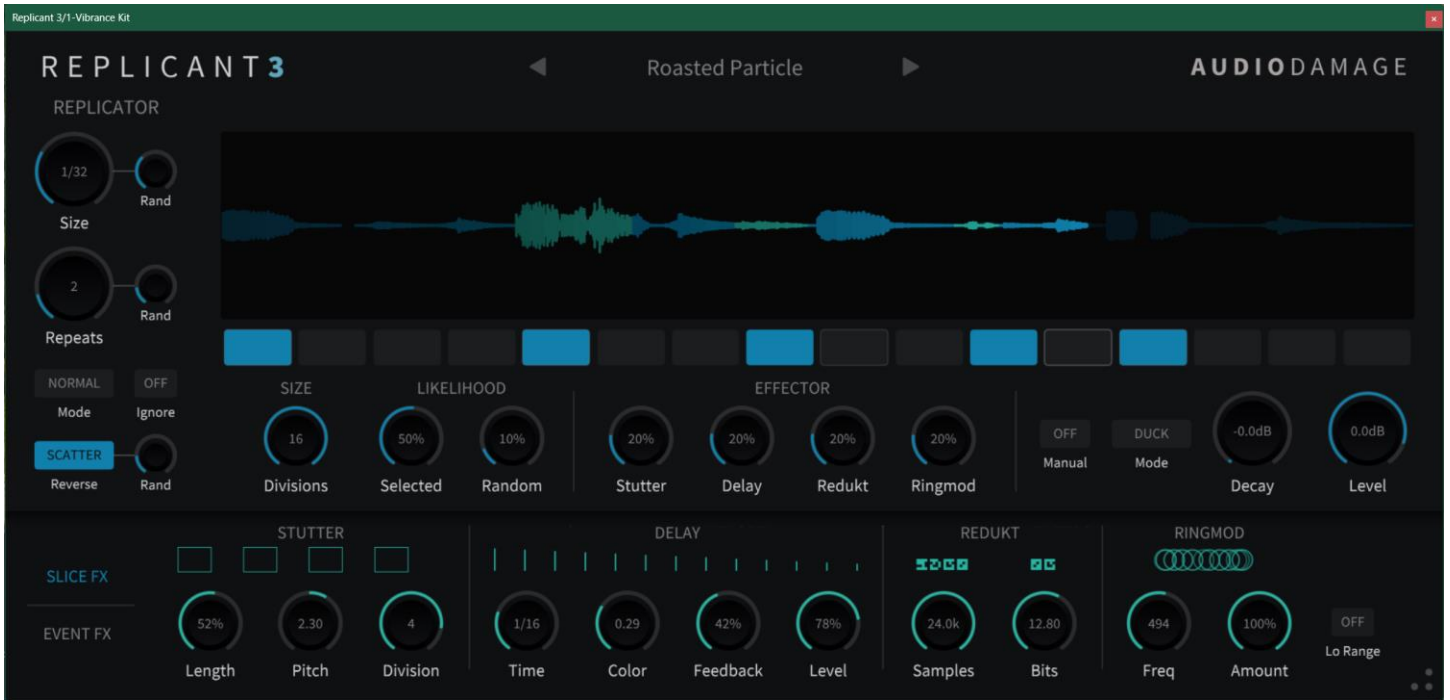


# Replicant User's Guide

Audio Damage, Inc.

Release 3.0



2 March 2023

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# Introduction

Thank you for purchasing Audio Damage's Replicant, our delay-based plugin for slicing, dicing, and looping your drum loops and other rhythmic audio. Replicant creates everything from simple delay and panning effects to stutters, automated filter sweeps and unpredictable random audio mangling.

You're probably much more interested in playing with Replicant than reading about it, but there are some subtleties of its operation which bear written explanation. This manual assumes you are familiar with at least the basics of using audio plugins and digital audio workstation (DAW) software or other software which hosts plugins. This manual provides explanations of all of Replicant's controls, how they operate and interact, and how you can use a hardware MIDI controller to control Replicant.

## New in Version 3.0

Realizing that a good deal of Replicant's code was written fifteen years ago(!), we rewrote almost everything to create version 3.0. With sparkling-fresh new code we added the following features:

- **A New User Interface:** a modern, contemporary appearance including a dynamic waveform display of the audio passing through. With brief regret, we dropped the circle of trigger buttons in favor of a simple linear display which is both easier to navigate and ties the room together with the waveform display.
- **Time-signature independence:** previous versions of Replicant always divided the measure into sixteen slices. This is fine for music written in a 4/4 or similar time signature but doesn't work well with waltzes and other music in odd signatures<sup>1</sup>. Replicant 3 can divide the measure by any number from three to sixteen, and permits dotted-note- and n-tuple-note-length slices. Together these features can accommodate a wide range of rhythms.
- **Slice Envelope:** a simple but versatile attack-hold-release envelope can lightly smooth Replicant's hard-edged slices, create fade-in and fade-out effects, and even provide cross-fading on sustained input signals.
- **Ring modulator:** we've added an amplitude modulation effect, commonly known as a ring modulator. This effect can trigger randomly with adjustable probability or on every repetition.
- **Delay:** because we dearly love delays, Replicant now has a tempo-synced delay, also with adjustable probability.
- **Sample-rate reduction:** in addition to bit-depth reduction, Replicant now has sample-rate reduction for more lo-fi chewy goodness.
- **Better filters:** we adopted newer virtual-analog modeling techniques for the filters. Also, the graphics more accurately represent the frequency responses of the filters.

## System Requirements

The following table summarizes the operating system requirements and formats provided for Replicant:

Operating System	Minimum Version	Formats
macOS	10.11	AudioUnit, VST3, CLAP and AAX, 64-bit; Intel and Apple M1
Windows	8.1 x64	VST3, CLAP and AAX, 64-bit
Ubuntu	18 x64	VST3, CLAP, LV2, 64-bit

To use Replicant, you'll need a 64-bit host application such as Ableton Live, Bitwig Studio, Apple Logic, Avid ProTools, etc<sup>2</sup>. We assume that you are familiar with using plugins with your host. If you have general questions about installing and using plugins with your host, please refer to its documentation.

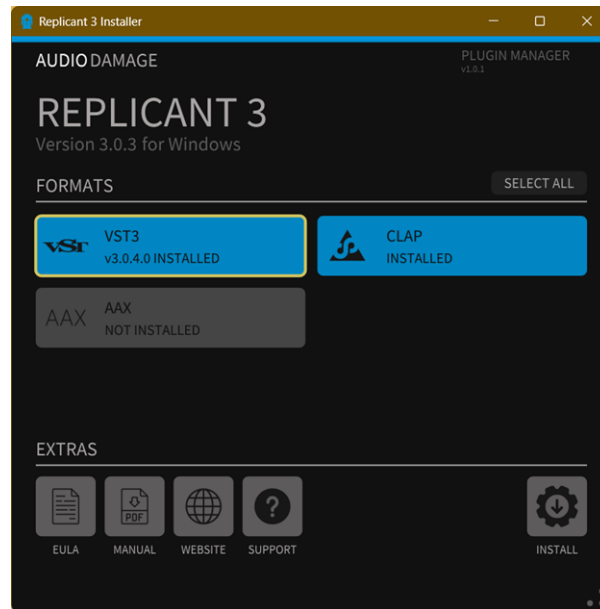
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<sup>1</sup> Okay, not many people write waltzes these days. However, see <https://www.hellosimply.com/blog/piano-culture/odd-time-signature-examples-musicians-love/> for a list of a number of well-known songs written in signatures other than 4/4.

<sup>2</sup> Product names and plugin format names are copyrighted by their respective owners.

# Installation

Replicant uses our custom plugin manager application for installation. Launch it as usual on your operating system of choice and you'll be presented with a window like this:



Near the top of the window, beneath the large words **REPLICANT 3**, you'll see the version number of the software which the installer can install. This is distinct from the version of the plugin manager itself, which is shown in the upper right and usually not of much interest.

Under the heading **FORMATS** are large buttons corresponding to the plugin formats which can be installed: AAX, CLAP, LV2 and/or VST3, depending on the operating system. If the plugin is already present on your system in one or more formats, the corresponding button is drawn in blue. When possible, the version number of the existing plugin is also shown.

Click a button to select the format for installation. A yellow outline appears around the button to indicate that its format will be installed. In the above screenshot, VST3 and CLAP are installed, AAX is not installed, and VST3 is selected for installation. The older instance of the VST3 plugin will be overwritten by the version contained in the plugin manager.

Clicking a button a second time removes the yellow outline and the corresponding format will not be installed. Clicking the **SELECT ALL** button selects all available formats for installation.

No changes to your system's storage device take place until you click the **INSTALL** button near the lower-right corner of the window. Click that button and you'll receive a visual confirmation that the formats you've selected have been installed. (Yes, it happens quickly.) If you hold down the shift key on your keyboard, the **INSTALL** button's label switches to **UNINSTALL**, and clicking it will remove the selected formats from your system.

Once you're installed and/or removed the formats you need, simply close the application in the usual manner for your operating system. You're done.

You'll find some handy buttons under the **EXTRAS** heading, all of which are pretty self-explanatory:

**EULA** – presents the End-User License Agreement for our products. By clicking the **INSTALL** button you're implicitly agreeing to these terms, but we expect that you'll find them reasonable should you take the time to read them.

**MANUAL** – opens the current version of the user manual, in PDF form, in your web browser.

**WEBSITE** – opens the product's web page in your browser.

**SUPPORT** – displays information for contacting us, either via our Discord presence or through email.

## Demonstration Version

We encourage you to download and try the demonstration version of Replicant before purchasing it. The demo version of Replicant is the same as the regular version, but has the following limitations:

- Presets cannot be saved, nor can parameter values or other settings. This includes the information usually stored by your host DAW. If you save a DAW session with an instance of the demo version of Replicant, Replicant will revert to its default state when you reload the session.
- Replicant will cease to generate audio at all 20 minutes after you add it to your DAW session. You can remove it and add it again, but it will revert to its default state.

## Operation

Replicant is essentially a tempo-based delay effect. The primary feature that distinguishes Replicant from standard delays is its notion of *beat triggers*, or simply *triggers*. Replicant divides each measure into three to sixteen slices; each slice has a trigger. If a slice's trigger fires, Replicant loops and repeats some amount of audio of that slice. (In contrast, a standard delay loops and repeats all of the audio which passes through it.) Replicant has controls which determine how long the repeated audio segment is and how many times it is repeated. Replicant also has controls for filtering, panning, reversing and distorting the looped audio, creating rhythmic timbres not present in the original signal. Replicant can automatically create random variations of its own actions.

Replicant can be used in a mono, stereo, or mono-to-stereo context. In a mono context, the panning controls have no effect. In a stereo context, no summing of the input channels happens, and the panning effects are created by adjusting the levels of the two output signals with respect to each other (rather like the balance knob found on most stereos). In a mono-to-stereo context the panning effects move the mono output signal back and forth between the two output channels.

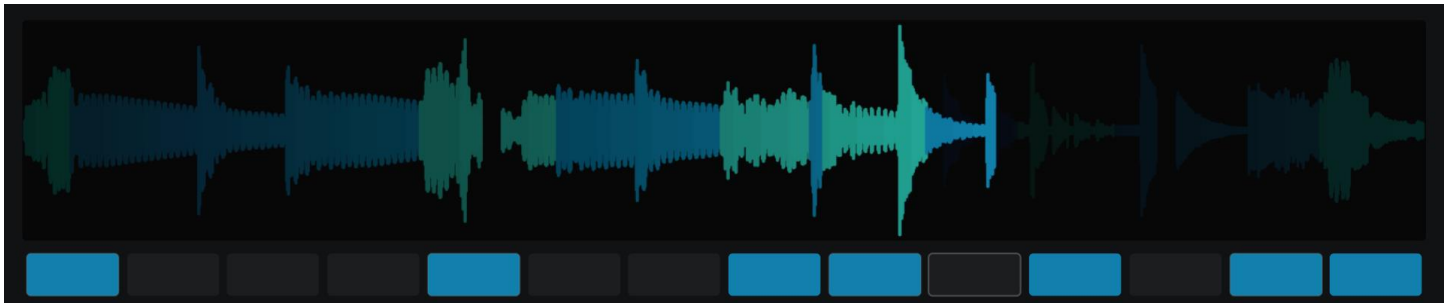
Replicant is useful as either an insert effect or a send/return effect. The **MODE** switches (described in greater detail below) allow you to choose different combinations of the unprocessed and processed signals.

## Controls

Most of Replicant's controls appear simultaneously in the upper portion of its window. There are two sets of effects controls which share the lower part of the window. Clicking the words **SLICE FX** and **EVENT FX** at the left toggles between the two sets of effects controls.

### Waveform Display

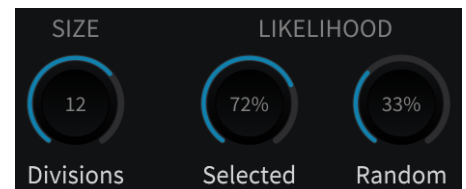
The upper half of Replicant's window displays a drawing of the audio passing through the plugin. The drawing always shows one measure's worth of audio, regardless of the current tempo. Light blue represents unprocessed audio while cyan represents processed audio.



### Trigger Sequencer

The row of buttons below the waveform display comprises the trigger sequencer. The knob labeled **SIZE** just beneath the left end of the row sets the number of buttons. Each button represents a position within a measure that Replicant's effects can be triggered. Click the buttons to toggle them on and off; light blue buttons are on and hence indicate a position within the measure that Replicant's effects will be triggered.

Since the **SIZE** knob lets you divide the measure by an arbitrary number from one to sixteen, the positions within the measure represented by the trigger buttons may or may not correspond to beats within the measure. If your music is in the 4/4 time signature, for example, setting the Divisions to seven means that only the first trigger will align with the beat. Thus, throughout this manual and in Replicant's user interface, we'll refer to the chunks that Replicant uses to divide the measure as *slices* rather than beats.



### Likelihood Knobs

The two knobs labeled Likelihood control the probability that Replicant will begin repeating the audio at a given slice.

The knob labeled **Selected** determines the likelihood that Replicant will repeat slices whose trigger switches are on. If this knob is set at 100%, Replicant will always repeat at positions whose trigger switches are on. If the knob is set to 0%, Replicant will not repeat at all (unless triggers are chosen based on the setting of the **Random** knob, described next). If the knob is set to 50%, about half of the slices chosen with the trigger switches will repeat.

The **Random** knob determines how likely it is that any of the slices in a measure will be selected for repetition, regardless of whether their trigger switches are on or off. If this knob is set to zero, Replicant will not randomly repeat any beats. If this slider is set to 100%, Replicant will repeat every beat. If this knob is set somewhere in the middle, Replicant will randomly repeat slices about half of the time, regardless of the state of the trigger switches.

In a sense, these knobs have complementary roles. Since the **Selected** knob only controls the probability of repetition of slices whose trigger switches are turned on, in general it has the effect of *reducing* the number of slices that are repeated. On the other hand, the **Random** knob affects the probability that any slices will be repeated and hence generally has the effect of *increasing* the number of repeated slices.

## Replicator

The controls in the upper left of Replicant's window determine the length of the audio segments that Replicant repeats, and how many times it repeats them.

The **Size** knob controls the length of the audio segments that Replicant repeats. Clicking and dragging upwards on the knob increases the length of the segments. The segment length can range from 1/128<sup>th</sup> of a measure to a full measure.

The **Rand** knob to the right of the **Size** knob introduces random variations of the segment length. If this knob is fully anti-clockwise it has no effect, and the segments will always be the length set by the **Size** knob. As you turn up the knob, the lengths of the segments become more varied. Note that Replicant does not change the length of a segment once it starts repeating it.

The **Repeats** knob controls how many times Replicant repeats a segment of audio. The minimum setting is zero, meaning that Replicant doesn't repeat any audio at all. However, when a trigger happens, Replicant may apply any or all of its slice effects; we'll talk more about these effects later. Dragging upwards on this control increases the number of times Replicant that repeats, with a maximum setting of 15 repetitions.

The accompanying **Rand** knob causes Replicant to randomly vary the number of times it repeats. If this knob is set at zero, it has no effect, and the number of repetitions is entirely controlled by the **Repeats** knob. As you turn the knob up, the number of times that Replicant repeats any segment of audio will become more unpredictable, although it will not play any segment more than 16 times.

It is worth mentioning that the combination of a long **Size** setting and a high **Repeats** setting will cause Replicant to churn away merrily on the same segment of audio for quite some time—as long as 16 measures.

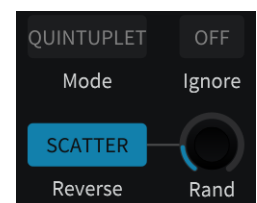
The **Ignore** switch also affects how Replicant chooses slices for repetition. This switch determines what happens if Replicant is currently repeating and a new slice is selected for repetition (either because its trigger switch is on or because it is chosen randomly because the **Random Likelihood** knob is set higher than 0%). If the **Ignore** button is engaged, Replicant ignores the new trigger and continues playing the audio it is repeating. Conversely, if the **ignore** button is off, Replicant stops playing the repeated audio it is currently playing and begins playing and repeating the newly selected slice.

Whether the **Ignore** button has any effect depends on the settings of the **Size** and **Repeats** controls. For example, if the **Size** is 1/64 and the **Repeats** is 2, then the same thing happens regardless of whether **Ignore** is on or off because Replicant will be finished playing two repetitions of 1/64<sup>th</sup> of a measure by the time it reaches the next triggered beat (since the triggers can occur at most every 1/16<sup>th</sup> of a measure).

## Direction Controls

The **Scatter** button and the nearby **Rand** knob cause Replicant to play repeated audio backwards. The **Rand** knob determines how likely it is that audio will be played backwards. If the knob is fully anti-clockwise, Replicant will never play backwards. The further that the knob is turned up, the more likely it is that Replicant will play backwards.

The **SCATTER** button let you choose one of two different backwards-playback modes. If the **SCATTER** switch is off, every repetition of a repeated slice will be played in the same direction, either forwards or backwards. The likelihood that the repetitions of a slice will be played backwards is set by the **Rand** knob. If the **SCATTER** switch is illuminated, Replicant will possibly reverse playback direction with each repetition of any repeated audio slice. The **Rand** knob sets the probability that the direction will reverse. If the knob is fully clockwise, the playback direction reverses with each repetition, so the repeated audio first plays forwards, then backwards, then forwards, etc.





## Slice Effects and Event Effects

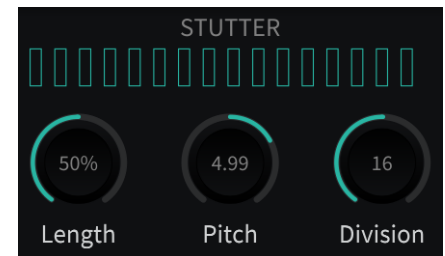
Replicant has several auxiliary effects processors divided into two groups: Slice Effects and Event Effects. Both effects change the audio when triggered but are applied in slightly different ways. Slice effects do not change as the audio slices repeat. The settings you see on Replicant's **SLICE FX** pane determine each effect's activities for every audio slice. However, the slice effects can turn on and off randomly, for each slice, as determined by the probabilities set with the knobs in the **EFFECTOR** section. By contrast, the Event effects are always applied. In the case of the Panner and Filters, their effect changes as the audio repeats, but they're always applied to every slice.

### Slice Effects

#### Stutter

The group of controls labeled Stutter further subdivide the slices of audio chosen by the Selector and Repeater controls. The resulting segments of audio are sometimes so short that they're heard as beeps, buzzes, and other pitched noises that bear little resemblance to the original signal.

The **DIVISION** knob sets the divisor, that is, the fraction of the audio chunk that will be repeated. The available values are powers of two, that is, two, four, eight, sixteen, etc. on up to 128. Since the duration of the original chunk is set by the Replicator **SIZE** knob, the final length of the repeated slice of audio is equal to the **SIZE** setting divided by the **DIVISION** SETTING. For example, if the **SIZE** is 1/8 and the **DIVISION** is four, the resulting audio slice will be equal to the duration of a 1/32 note. That slice will be played four times within that duration. As above, the Replicator **REPEATS** knob sets how many times the audio slice will be played again. Continuing the example, if **REPEATS** is five, the 1/32<sup>nd</sup>-sized slice of sound will be played 24 times: four times for the initial triggering followed by five repetitions of four.



Since the **SIZE** ranges from full measure down to a 1/128<sup>th</sup> note, and since the **DIVISION** parameter goes from 2 to 128, it follows that Replicant produces audio slices ranging in length from half a measure down to the equivalent of a 1/16384<sup>th</sup> note, if there were such a thing. The result can sound like anything from a short loop of audio to a high-pitched tone—or a tone so high that it's above the range of human hearing. For example, at a tempo of 120bpm, a 1/4096 note is only a little more than 1/10,000 of a second long. Our ears don't perceive something that happens 10,000 times per second as discrete events; instead we hear a high-pitched tone with a frequency of 10,000Hz. It is also entirely possible, depending on the signal you're running through Replicant, that there is nothing but silence within the first fraction of the audio present when the Stutter effect is triggered. This means that at some combinations of extreme settings, there's a good chance that you won't hear anything at all.

The **LENGTH** knob acts like a gate that silences part of each repetition of the audio slice. This knob can be set from 0 to 100%. At 100%, the gate is on all the time and has no effect. As you rotate the knob counter-clockwise, the gate starts to silence part of the audio slice. If the **LENGTH** knob is set to 50%, the second half of the slice is silenced each time it is played. Since the gate duration can be as short as 0%, you may not hear anything at all at low settings of the **LENGTH** knob, depending on your input material and the length of audio slices (determined by the **DIVISION** knob and the **SIZE** knob, as described previously).

The **PITCH** knob changes the pitch of the audio slice as it repeats. Each time the slice is played the rate at which it plays is increased or decreased slightly, causing its pitch to rise or fall with each repetition. If the knob is set to its center position the pitch of the audio slice is not changed. If you move the knob clockwise, the pitch rises; if you move the knob anti-clockwise, the pitch falls.

The Stutter effect doesn't necessarily happen every time Replicant repeats a segment of audio. Whether the subdivision controlled by the Stutter controls happens is determined randomly, with a probability set by the **STUTTER** knob beneath the Effector heading. If the **STUTTER** knob is set to zero, the Stutter effect never happens (and the settings of the controls are irrelevant). Turning the knob up increases the likelihood that the Stutter effect will kick in any time Replicant triggers. If you set the knob to 100%, the effect will happen every time.

## Delay

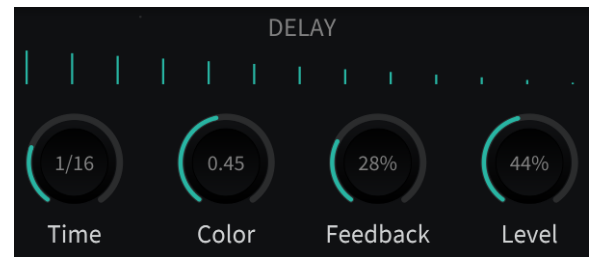
The second Slice Effect is a tempo-synced delay. Its controls should be self-explanatory, but we'll run through them nonetheless.

The **TIME** knob sets the delay time, in metrical units. Dotted and triplet note values are indicated with 'D' and 'T' respectively.

The **COLOR** knob applies filtering to the delayed signal. Its center position is neutral. Turning it clockwise filters out low frequencies, making the delayed sound brighter and thinner. Turning it anti-clockwise filters the highs, making the sound darker.

The **FEEDBACK** knob sends some of the delayed signal back to the delay's input. If this knob is at zero, you'll hear only one delayed copy of the original signal. As you turn the knob up you'll hear an increasing number of fading echoes. If you set the knob to 100% you'll hear the sound repeat more or less indefinitely.

Finally, the **LEVEL** knob controls the loudness of the delay's output.

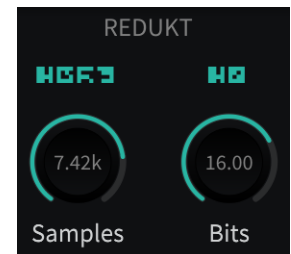


## Redukt

Redukt applies sample-rate- and bit-depth reduction to the triggered audio slice. These processes create lo-fi effects associated with older hardware samplers, hand-held electronic games, etc.

The **SAMPLES** knob reduces the sample rate of the audio. More specifically, it resamples the audio at the rate shown in the center of the knob. The resampling technique is deliberately as crude as possible, creating aliasing artifacts and other noise by design. If the knob is fully clockwise the resampler has no effect. Turn the knob anti-clockwise to lower the sampling rate, reducing the quality of the audio.

The **BITS** knob controls a bit-depth reducer applied to the looped audio. Turning this knob to the left effectively reduces the number of bits used to represent the audio signal. Note that at very low settings the bit-depth reducer can increase the amplitude of the signal substantially. Please exercise caution and use the main Level knob to compensate as needed.



## Ringmod

The Ringmod controls apply audio-rate amplitude modulation—commonly known as ring modulation—to the audio slice. Amplitude modulation works by multiplying the incoming audio with a signal from a fixed audio oscillator. The effect varies with the input signal but is usually described as clangorous or metallic.

The **FREQ** knob controls the frequency of the fixed oscillator. The frequency is shown in Hertz (cycles per second) in the center of the knob. Turning on the **LO RANGE** switch reduces the frequency of the oscillator by one tenth, so e.g. if the displayed value is 123, the actual oscillator frequency is 12.3Hz. At low frequencies the ring modulator acts more like a tremolo effect.

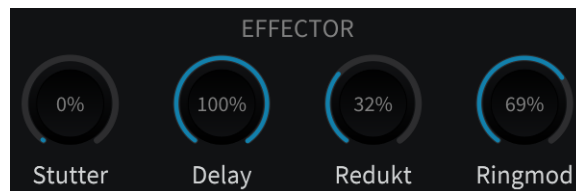
The **AMOUNT** knob increases the intensity of the ring modulation effect. At a setting of zero the ring modulator doesn't do anything. Turn the knob clockwise to turn up the effect.

## Effector Knobs

Roughly in the center of Replicant's window, the four **EFFECTOR** knobs determine how likely it is that any of the individual Slice effects are applied to each audio slice.

Note that these controls are *not* the same as level or send knobs found in other plugins and in DAW mixers. They don't control audio amplitudes at all; they control how likely it is that the slice effects spring into action.

If a knob is set at zero, the corresponding slice effect never happens. If it's set at 100%, the effect will be heard on each slice. If it's set somewhere in between the effect may or may not happen on each slice; higher values mean it's more likely to happen.



## Event Effects

Replicant applies its Event Effects any time it is triggered. The effects persist across all of the repeated slices; by contrast, the Slice Effects described in the previous section can turn off and on randomly with each slice.

## Panner

Replicant first Event Effect is an automatic panning section which moves the repeating audio back and forth in the stereo field. The auto-panner is controlled by three knobs and a switch.

The **POSITION** control sets the initial stereo placement of the looped audio. If the position is set to **CTR** (center), the audio is placed at the center of the stereo field. Turning the knob left or right moves the processed audio in the same direction.

The **SPEED** knob controls the speed at which that the auto-panner moves the looped audio. If this knob is placed at the center position, the auto-panner has no effect. If you turn this slider to the right, the looped audio moves to the right with each repetition, and moves to the left if you move the knob the other way. The further you move the knob (in either direction) the faster the auto-panner moves.

The **WIDTH** knob adjusts the overall effect of the auto-panner. Clicking and dragging the knob upwards increases the distance the audio appears to move from the center. If **WIDTH** is set to zero, the auto-panner has no effect.

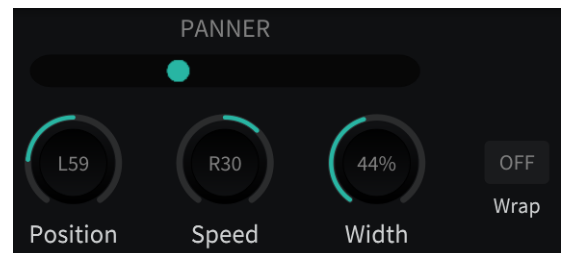
The **WRAP** buttons control how the panner operates when it reaches one side of the stereo field or the other. If the **WRAP** button is turned off, the panner changes direction when it reaches either side; that is, it bounces, or reflects, from one side to the other. This panning style is similar to a ping-pong stereo delay. If the **WRAP** button is illuminated, the panner jumps to the other side when it reaches either side and continues in the same direction.

If Replicant is inserted in a mono-in/mono-out context in your host program, the panning controls have no effect.

## Envelope

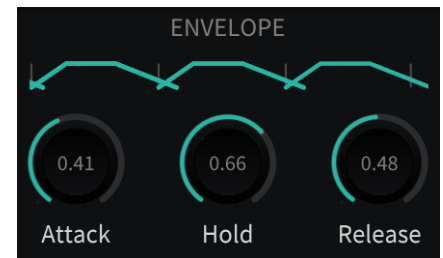
Back in 2007(!) when we created the first version of Replicant, we intended it for use specifically with drum loops and other percussive instruments. Imagine our surprise when some of our customers complained that it didn't work well with sustained sounds like pads. With version 3 we've introduced features which make it usable on a wider variety of material.

The Envelope controls impart volume ramps to the start and end of audio slices. Applying short ramps can remove undesired clicks from the audio while largely preserving the original signal. Longer ramps create fade-in and fade-out effects. Some settings cause the fades to overlap, producing largely uninterrupted repetitions from sustained source signals.



The **ATTACK** and **RELEASE** knobs control the steepness or speed of the volume ramps. Their values are shown with numbers in the range zero to one which reflect the duration of the ramp relative to the length of the audio slice. At a setting of zero the ramps are effectively turned off. An **ATTACK** setting of 0.5, for example, means that the audio will fade in for the first half of the slice.

The **Release** knob extends the duration of the slice, fading it out when it reaches the end of the time set with the Replicator **SIZE** knob and related controls. The fading audio will overlap with the beginning of the next repetition. If you set the **ATTACK** and **RELEASE** knobs to the same value, you'll get a crossfade between repeats.

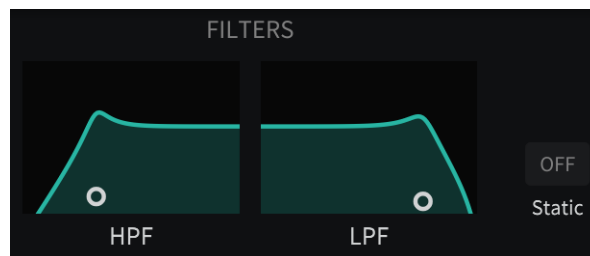


The **HOLD** knob shortens the time between the attack and release ramps. A setting of 1.0 means that the entire slice will be played (or more, if the **RELEASE** knob is set above zero). Lower settings cause the release ramp to begin before the end of the slice. For example, an **ATTACK** setting of zero, a **HOLD** setting of 0.25, and a **RELEASE** setting of 0.75 will play the first quarter of the slice unaltered, with no fade-in ramp, then fade it out over the remaining three quarters of its duration.

## Filters

Replicant has two 2-pole filters (four if used in a stereo context), one low-pass filter and one high-pass filter, labeled **LPF** and **HPF**. These filters can be adjusted to alter the timbre of the looped audio. For instance, you can use the low-pass filter to create a darker sound, or the high-pass filter to create a thinner sound.

The graph-like filter controls set the corner frequencies and resonance values of the corresponding filter. Dragging the white circle left and right changes the filter's frequency and dragging it up and down changes the resonance. Since the filters have complementary frequency responses, the controls in some sense operate opposite from one another. A low-pass filter attenuates signals above its cutoff frequency, passing lower-frequency signals; whereas a high-pass filter attenuates signals below its cutoff frequency, passing higher-frequency signals. As you move the **LPF** control's circle to the right, the corner frequency of the low-pass filter increases, allowing more of the signal to pass. On the other hand, as you move the **HPF** control's circle to the right, the corner frequency of the high-pass filter increases, allowing *less* of the signal to pass. The low-pass filter has a frequency range of 40 to 20,000Hz and the high-pass filter has a range of 10 to 10,000Hz.



These filters are connected in series, i.e., the looped audio signal passes first through the low-pass filter and then through the high-pass filter. If you set the frequency of the low-pass filter to less than the frequency of the high-pass filter, you'll hear little or no output signal.

Moving the white circles vertically changes the resonance of the filters. Increasing the resonance of a filter causes it to accentuate the frequency components of a signal near the filter's corner frequency. This makes the filter sound more apparent and at high values creates a whistling sound.

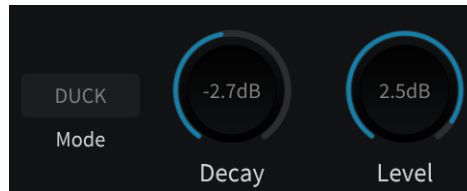
When the **STATIC** button is turned on, the filters operate at the frequencies you set with their controls. When the button is not engaged, the filters are automatically modulated or swept as the looped audio repeats. The first time the audio is played back the filters are set to their highest and lowest frequency settings, respectively (i.e. the low-pass filter is set to 20kHz and the high-pass filter is set to 10Hz), and the audio is passed without alteration by the filters. On subsequent repetitions of the looped audio the filter frequencies are moved toward the frequencies set with the filter controls. On the last repetition of the audio the filter frequencies reach the values set by the controls. In other words, the filters open fully for the first repetition of the audio, and close to the frequencies set by the controls as the audio repeats. This can be used to impart a changing timbre to the repeated audio to make it more distinct from the original.

## Output Controls

The controls in this section affect how the repeated audio is mixed with the incoming audio. There is also a bit-reduction control and buttons for randomizing Replicant's parameters.

### Level Controls

The **LEVEL** knob controls the volume (loudness) of the looped and filtered audio signal. Turning this knob up makes the processed signal get louder. It has a range of -40dB (quite a lot of attenuation) to +6dB (a modest amount of boost). You can use this slider to compensate for the loudness changes created by the resonant filters and/or the bit-depth reducer. This control does not affect the unprocessed signal.

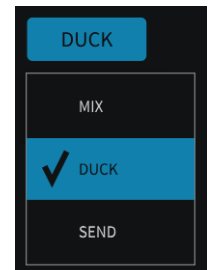


The **DECAY** knob determines how much, if any, the looped audio diminishes in loudness each time it is played. If the **DECAY** knob is turned all the way anti-clockwise, the looped audio is played back with the same loudness with each repetition. If you turn the knob up the looped audio becomes quieter each time it repeats. At the maximum position the audio usually fades out altogether before you hear the last repetition. You can use this control to make Replicant sound more like a traditional delay effect. This control has a range of 0dB (no decay) to -6dB per repetition.

### Mixing Mode

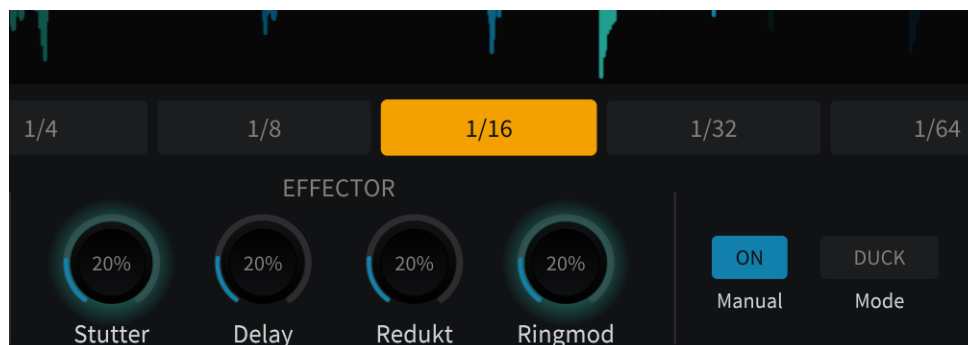
The **MODE** pop-up menu chooses different signal-mixing configurations. The different configurations control how Replicant mixes the processed signal with the incoming signal to form its output and are appropriate for the different ways in which a plugin can be inserted in the signal paths in your host software.

- The **MIX** mode mixes the input signal with the output signal in equal amounts. This mode is appropriate when you're using Replicant as an insert effect on one channel of your host software's mixer, and you want to hear both the original signal and the processed signal mixed together.
- The **DUCK** mode silences the input signal when it is playing back looped audio, and passes the input signal without alteration otherwise. This mode is useful when you're using Replicant as an insert effect, and you want to hear the original signal and the processed signal but not both at once.
- The **SEND** mode does not pass any of the unprocessed input signal to Replicant's output. You hear only the looped audio. This mode is useful when you're using Replicant as a send effect in your host's mixer, sending one or more channels to it and mixing its output with the other signals present in the mixer.



## Manual and MIDI Triggering

If you turn on the Manual switch located to the right of the **EFFECTOR** knobs, a set of manual trigger buttons replaces the usual trigger sequencer switches. Clicking any of these buttons immediately triggers Replicant, with a slice size corresponding to the label on the button. The repeats happen for as long as you hold the button down.



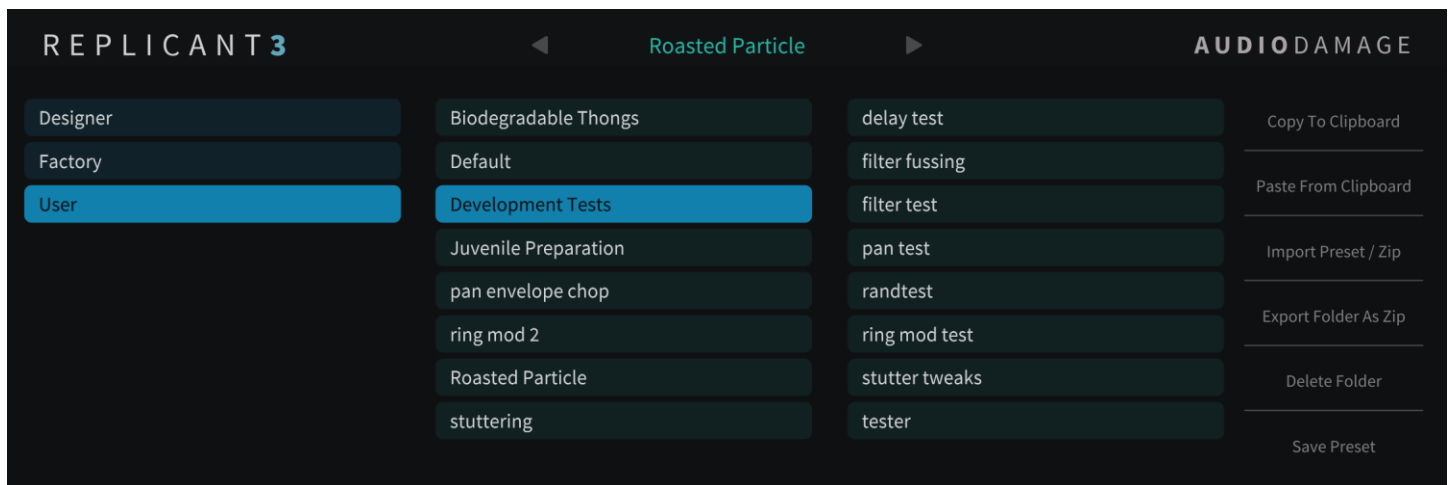
Replicant's triggering also responds to MIDI note messages. Replicant recognizes MIDI notes C3 through C4. Higher notes trigger shorter events; C3 triggers an event with a duration of 1/1, D3 triggers an event with a duration of 1/2 and so on.

Replicant will keep repeating as long as you hold down the MIDI key. MIDI triggering overrides Replicant's own triggering but is affected by the various randomization controls.

## Presets

Replicant includes a number of presets to serve as a demonstration of its capabilities and inspirations for your own creations. To access the presets, click the name of the current preset at the top of the window to open the preset browser. Click the name again to dismiss the preset browser.

The browser displays presets within two lists of folders. The leftmost list shows the folders within Replicant's preset collection, grouped in two categories: Factory and User. Clicking any of these folders reveals its contents in the next list. These folders can contain sub-folders of their own; clicking any of these displays their contents—the presets—in the rightmost list. Clicking on a preset name loads the settings into Replicant. Double-clicking a preset name loads the preset and dismisses the preset browser.



After clicking on any of the lists, you can move up and down in the list with the corresponding arrow keys on your keyboard. You can also go through all the presets in all the folders by clicking the left and right pointers on either side of the preset name at the top center of Replicant's window.

Loading a preset irretrievably erases Replicant's current settings, so if you have created a sound that you want to use again, save it as a new preset before loading another preset. To save your own presets, click the **SAVE PRESET** button at the right edge of the window. Replicant will prompt you to enter a name for the preset with a standard system file dialog box.

The folders and presets in the browser correspond to folders and files within Replicant's own folder on your storage device (i.e. your computer's hard drive or SSD). This folder is located at `C:\ProgramData\Audio Damage\Replicant3\` on Windows, and `~/Music/Audio Damage/Replicant3/` on macOS. Theoretically you can save your presets anywhere you like, but for them to show up in Replicant's User list they must be placed in the User folder within Replicant's folder. Also, to avoid possible collisions during future updates, do not store your presets within the Factory folder.

Any folders you create within the User folder will show up as folders in the User list. You can create sub-folders within the User folder, but not folders within those sub-folders.

You can delete presets from the lists by clicking their name and then clicking the **Delete Preset** button. Replicant will give you a chance to confirm this action or cancel it. If you confirm, the preset/folder will be removed from your storage system and is gone for good.

If you save a preset with the special name "Default" in the User folder, new instances of Replicant will load it automatically when you add it to your DAW session. You can use a default preset file to give you the same starting point with Replicant whenever you use it.

## Importing and Exporting Presets

Preset files are plain-text XML files so that you can exchange them online in forums, copy them between a Windows computer and a Macintosh, email them to your friends, etc.

The **Copy To Clipboard** and **Paste From Clipboard** buttons copy Replicant's current settings to the system clipboard and paste settings from the clipboard. You can use the copy and paste commands to transfer settings between two instances of Replicant or paste the settings into an email message or text editor. When copied to the clipboard, presets are presented in the same XML text as used in preset files.

The **Import Preset / Zip** button provides a way to add presets to Replicant without manually moving them into the appropriate folders in your file system. Clicking this button produces a file-browser window wherein you can select either a single preset file or a .zip file containing one or more presets. After you select the file, Replicant copies the preset(s) into whichever folder you have selected in Replicant's preset list, unzipping the file first if necessary.

Depending on whether you've selected a preset or Folder, the **Export Single Preset** or **Export Folder As Zip** button performs the complementary functions of the **Import** button. First select either a preset or a folder in Replicant's list, then click the export button. A file-save window appears; choose a location in your file system, give the file a name, and click Save. If you have chosen a folder in Replicant's preset list, the plugin places it and all of the presets it contains in a .zip file.

## Save Options

Clicking the **Save Preset** button invokes a dialog box with a couple of helpful features. As the text therein describes, you can create a folder within the destination folder (whose name is given at the top of the dialog box) by adding the folder's name to the beginning of the preset's name, separate by a slash mark. Bear in mind that the User folder accommodates only one level of sub-folders: you can create folders inside the User folder, but not folders within those folders.



Clicking the **Random Name** button replaces the preset's name with a pair of words chosen at random from two lists. While the resulting names won't have any connection with what the plugin is doing, you may find this button useful for coming up with alternatives to routine names like "My Preset 12".

## And Finally...

Thanks again for purchasing Replicant. We make every effort to ensure your satisfaction with our products, and want you to be happy with your purchase. Please write [support@audiodamage.com](mailto:support@audiodamage.com) if you have any questions or comments.