

# DUCK

## The Duckmentation



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## Introduction

Duck is an effect plug-in for your DAW (Digital Audio Workstation).

### What does it do?

Applies a volume envelope to the track it is inserted on. This can be played at different speeds and, either, loops in time to your track or is retriggered from an external source, a MIDI note or another audio track.

### What is it for?

The most common use for Duck is to get that modern ‘sidechain compression’ sound where the volume of other instruments is reduced to allow the key rhythmic elements through: typically the kick.

There are also many other creative uses including:

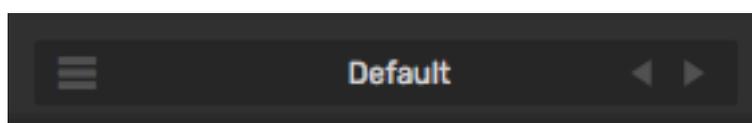
- Give clarity by ducking audio tracks based on your peaks
- Give chords and pads dynamic rhythm or tremolo
- Add variety to drum tracks with envelope shaping
- Enhance the rhythm of your track with the use of polyrhythms
- Generate new rhythms from any sound
- Trigger dynamic changes from MIDI instruments

## Getting started

Select a stereo track or bus in your DAW which has some audio playing (we suggest something with a long sustain, like some synth pads, as a good starting point). Next, load Duck as an insert plug-in on that track.

The default preset will cause a dynamic reduction at the start of each beat, this sort of rhythm works well with a four to the floor drum kick, commonly found in dance music. However, to explore further the capabilities of Duck, we suggest you look into the user presets.

Presets are loaded via the text bar at the top of the plug-in. The bar displays the current preset name (which will say “Default” if none has been loaded). Click this bar to see a list of the available presets, and select one to load it.



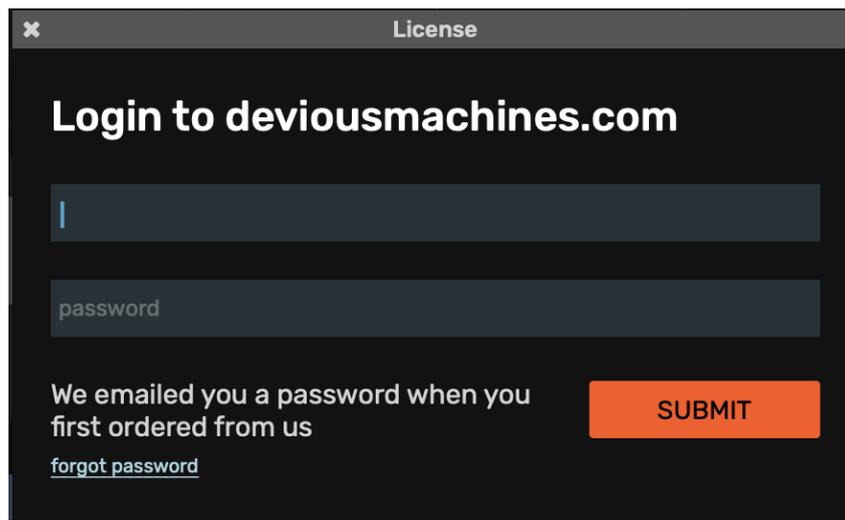
You can also use the two arrow buttons to the right of the preset name to step through the available presets, one by one.

## Demo mode

If it is not activated (licensed), then Duck will run in demo mode for 14 days. When in demo mode, the word DEMO will be displayed in faint letters over the centre of the plug-in, and it will emit infrequent bursts of noise. These limitations can be removed by entering a valid licence (see the Plug-in Activation section below).

## Plug-in activation (Licensing)

You can purchase a licence at any time by going to the menu (next to the Devious Machines logo) and clicking **Buy Now**. Once you've purchased a licence for Duck, open the 'licence' window in the plugin and go to 'LOGIN'. Finally, enter your account details that were sent to you when you made your order. This will automatically licence the plugin for you.



The screenshot shows a window titled "License" with a close button (x) in the top left corner. The main heading is "Login to deviousmachines.com". Below the heading are two input fields: the first is empty, and the second is labeled "password". Below the input fields, there is a message: "We emailed you a password when you first ordered from us" and a link "forgot password". To the right of the message is an orange "SUBMIT" button.

### *Problems activating your licence?*

If you are having troubles activating your licence by logging in, please try manually entering the licence that was sent to you via email.

Review the steps how to do this here: <https://deviousmachines.com/using-licenses/>

If, after that, you are still having troubles - please contact our support: <https://deviousmachines.com/contact/>

## Delete your licence

Delete your licence by opening the licence window from the menu.

Then select **remove licence**.

This will remove the licence from the computer and make it available for usage on another system.

## Using Duck

Duck's editor is split into three main areas:



### 1. Preset and Menu Bar

Here, you can load and save presets, and access the plug-in menu.

### 2. Envelope Editor

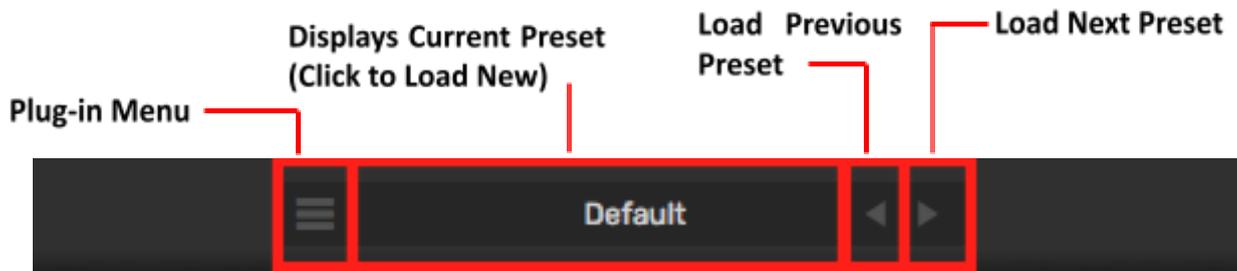
The area where you can edit the shape of which the dynamic changes will occur. There are preset envelope types. These can be edited. The audio waveform will appear here when playing.

### 3. Lower Panel

In this area, you are able to set the parameters for how Duck will affect your input signal as well as change the envelope itself.

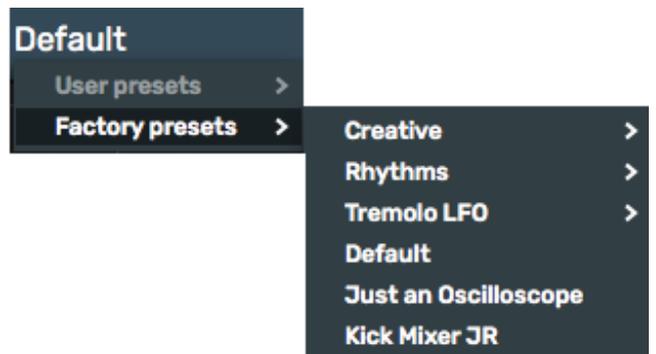
## The Preset and Menu Bar

Duck comes with a variety of factory presets. You can also save your own presets, or just the curve shape itself. Controls for loading and saving presets are at the top of the plugin window.



### Loading a preset

The central bar displays the current preset name. Click on the name to display the preset menu. Select a preset from the menu to load it.



You may also use the two arrow buttons on the preset bar to step through the available presets one-by-one.

### Saving a preset

Click the **Save preset** button contained within the menu icon. A box will be displayed, prompting you to name your preset. Type a name, and press enter. Your preset will now be stored and will now appear under **User Presets**.

### Saving curve shapes

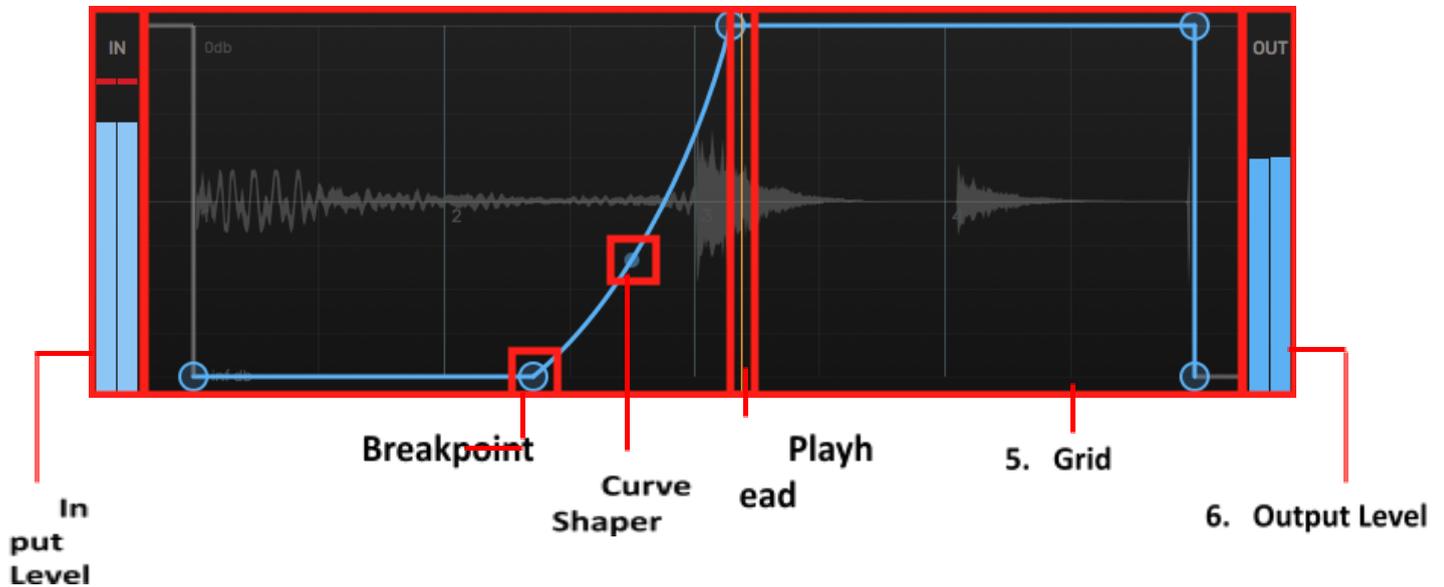
Click the **Save curve shape** button contained within the menu icon. Red boxes will appear over the preset shapes in the lower panel. Select the shape you would like to replace and find your new shape located in this slot to recall whenever required.



**Note:** To revert to the factory preset shapes you can manually remove your user shapes. Located:  
**Mac** ~/Library/Application Support/DeviousMachines/Duck/shapes  
**PC** %APPDATA%\DeviousMachines\Duck\shapes

## The Envelope Editor

The Envelope Editor controls the shape of the volume envelope.



### 1. Input Level

Meter that allows you to see the loudness of your audio coming into the plug-in

### 2. Breakpoint

A point in the envelope used to control its shape. To create a new breakpoint double click anywhere in the envelope view.

### 3. Curve Shaper

Changes the style and shape of the curve.

### 4. Playhead

Indicates position though the cycle during playback.

### 5. Grid

Guide for mapping positions as to where beats are falling. When audio is playing, you will also be able to see the waveform in this section.

## 6. Output Level

Meter that shows the loudness of the affected signal upon output. You can also adjust the gain for the output here.

### Toolbar



### Show sidechain/output on graph

These two buttons allow you to select what will show on the envelope graph. Duck will default with the output enabled. This will show the waveform of the ducked sound.

Meanwhile, the sidechain button will show any audio that is routed to the plugin. So, if you route a kick to Duck via sidechain, the waveform will appear on the plugin.

### Envelope mirroring

Flip your envelope shape horizontally or vertically. This is particularly useful for making two different Duck instances modulate at opposing times.

For example, if you want to layer the attack of one sound with the decay of another, then copy the waveform for the attack layer; paste it on to another Duck instance; finally vertically flip the envelope shape. The sound of the attack will fade out exactly as the sustain is fading up.

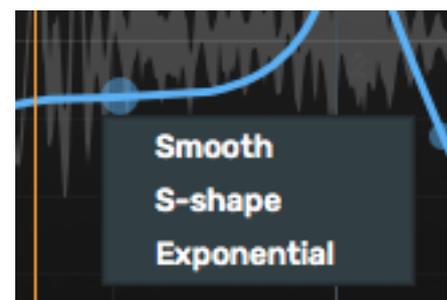
### Grid size

Change the size of the snapping grid in the envelope editor.

## Curve Shaper

There are three different curve styles available to users in designing envelopes. To change the curve style, right-click on the curve shaper.

- o **Smooth** - Rounded movement from one point to the next.
- o **S-Shape** - Two smaller curves in opposite directions from the central point.
- o **Exponential** - Similar to Smooth but with sharper movements at either end based on the shaper position.

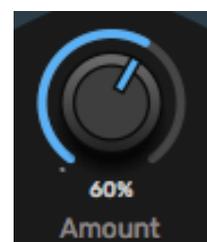


## The Lower Panel

The Lower Panel allows you to define how, and to what extent, Duck will impact the audio signal. As well as this, you can change the behaviour of the envelope itself.

### Amount Knob

Controls the strength of the effect.



At 100% the signal can be made completely silent using the volume envelope.

### Crossover Section

With Duck you can have separate amount controls for the high and low frequencies.

In order to use the split-band crossover mode, ensure that the on/off button in the filter section is on. When the filter is active the knobs will go from shaded to highlighted orange.



### Crossover

Sets the point where the low frequency band ends and the high frequency band begins.

### Low and High Amount Knobs

These are separate amount knobs for the low or high frequencies.

The amount of reduction in each band is shown by a small dot on the outer edge of the knob which moves when audio is playing.

### Solo Bands

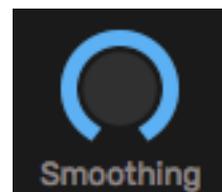
To the right of each band is a solo button. Use this to hear only what is coming through that band in order to be more precise with your filtering.

### Tips

- In order to get a feel for how the filter works, start by having one band in full effect while having the other set to zero. Then play around with the cross over to hear the results.
- Use both bands together to reduce some elements of the audio while leaving others present. For example: on a drum loop tighten high end percussion while leaving presence in the kick. Or remove the low end from a synth to allow your kick drum to shine whilst leaving the top end loud.

### Smoothing

If your envelope is causing audible clicks to the waveform because of its shape, use smoothing to round off the signal and remove artefacts.



### Curve Presets

In the upper right-hand side of the lower panel there are a series of shapes, these are your factory preset curves. When you mouse over a shape it will highlight, select a shape by clicking on it.



## Speed

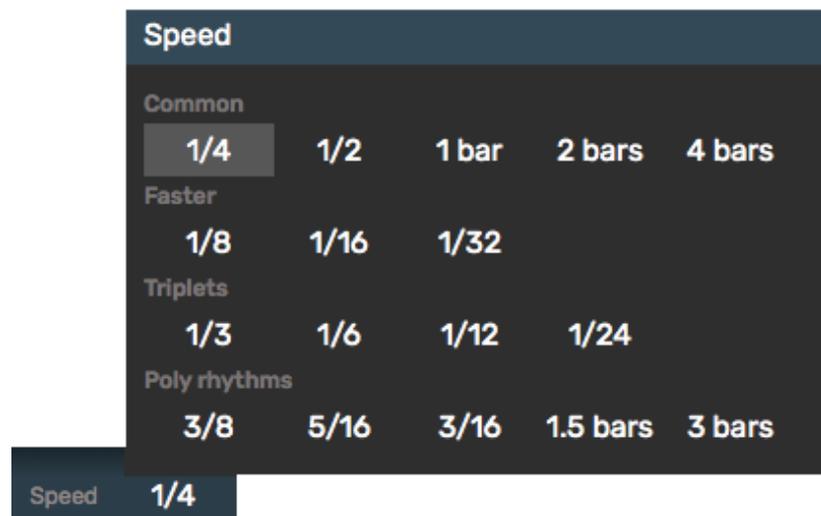
Sets the speed at which Duck plays the volume envelope. Click on the speed to change it.

There are four different types of speed in the menu:

- o **Common** - Covers commonly used speeds (1/4, 1/2, 1 bar, 2 bars, 4 bars)
- o **Faster** - Common rhythms that are faster (1/8, 1/16, 1/32)
- o **Triplets** - Different rhythms in multiples of three (1/3, 1/6, 1/12, 1/24)
- o **Poly rhythms** - Used to create complex conflicting rhythms from your time signature of choice (3/8, 5/16, 3/16, 1.5 bar, 3 bar)

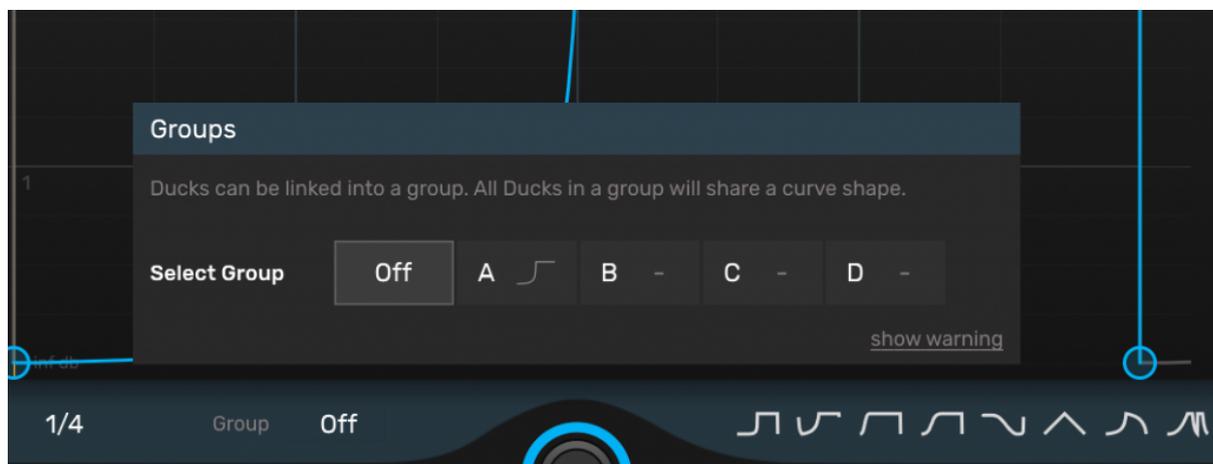
### Tip

- Layer different iterations of Duck utilising various different speed modes to create interesting and complex rhythms.



## Grouping

Grouping lets you edit the curve shape of several instances of Duck simultaneously. Curves in the same group will be exact copies of one another, any changes made to any one instance in a group will update across all instances. There are up to four groups available in any given DAW session.



For example:

- I have two instances of Duck that I want to Duck in time with a Kick with the same curve shape.
- I select the first instance, go to the '**Group**' section and select '**A**' in the pop-up menu.
- Then in my second instance I do the same process and the curve shape will change to match the first instance.
- After that, any changes I make on either instance will be copied over to the other in the group.

### Returning to the original shape

If you want to remove a Duck instance from the group and return to its original shape, you can do so by going to the group menu and selecting the '**Off**' button.

### Note

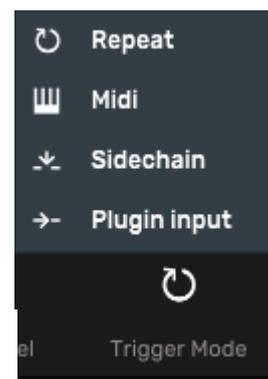
- Grouping only works if you use the same type of plugin for all instances (VST/VST3 or Audio Unit)
- Logic Pro and Reaper: groups may not work correctly if you have multiple projects open at the same time.

### Modes

Duck has three modes that cause the envelope to be triggered in different ways. Click on the trigger mode icon to select a new mode.

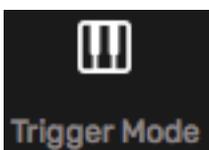
### Repeat Mode

This is the default. The envelope will cycle continuously in time with your track. This mode can be used to cause regular ducking to aid the mix or generate new rhythms out of the audio.



### MIDI Mode

The next mode is MIDI mode which allows you to trigger the envelope from an external MIDI track contained within your DAW project.



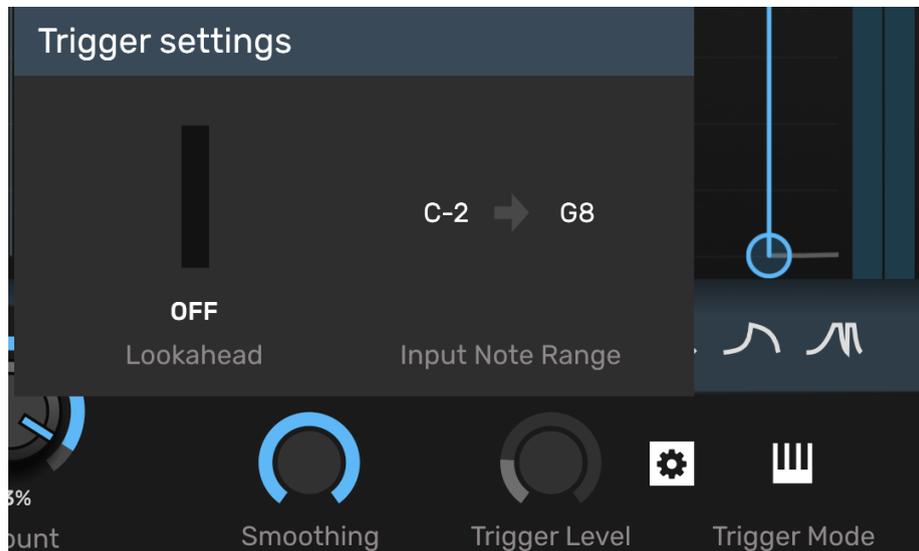
To achieve this, route a MIDI instrument track to the track containing Duck which you would like to affect. Ensure that the routing goes to the Duck plug-in, each DAW will have a different way of achieving this so be sure to check out our articles [here](#) if you are unsure.

Use this method to trigger Duck's envelope alongside a MIDI instrument (e.g. a soft-synth) or to create your own unique rhythms that change over time.

This mode is also great if you want to do a ducking effect but you are writing a broken or break-beat record with an irregular kick pattern.

### Trigger on specific MIDI notes

In MIDI mode, use MIDI note input filtering to trigger Duck only on a specific range of notes. This means that, for example, if your MIDI input is coming from a MIDI drum machine track - then you can set the range so that Duck is only triggered on the kick but not the other hits.

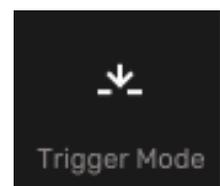


To adjust the MIDI trigger range:

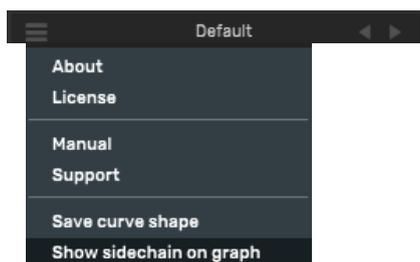
- Open the advanced settings in MIDI input mode.
- Adjust the lowest and highest notes based on your input. For example, to trigger only on C3 - change the both options to C3. To trigger on C3 and C4 - change the lowest to C3 and the highest to C4 etc.
- Slide the parameter up and down to set the range, or double click and type in the note.

### Sidechain Mode

This mode triggers the envelope from peaks in an external audio signal, thereby adopting a more traditional sidechain compression technique.



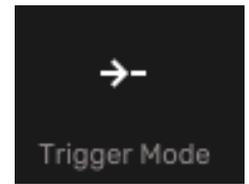
You will need to route the audio from your track of choice into Duck's sidechain input. This is achieved in different ways in each DAW, look at the information in our articles [here](#) if you are unsure.



To change the oscilloscope to show the audio from the sidechain input, go into the menu and select "Show sidechain on graph"

### Plugin Input Mode

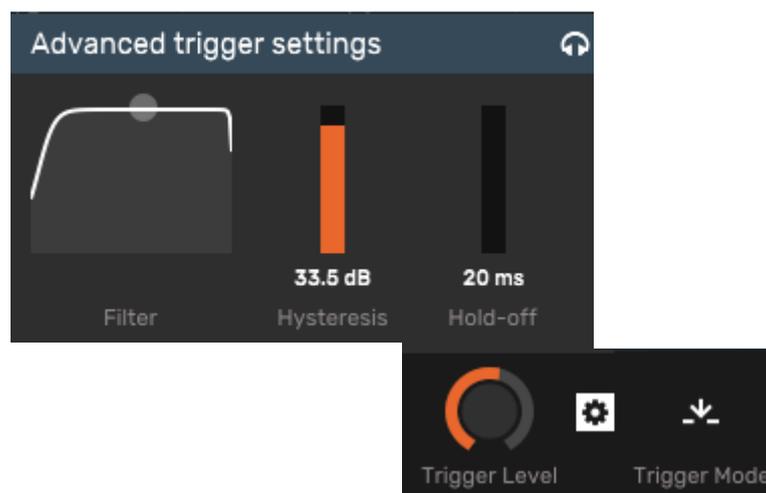
A mode that is new to version 1.0.10, Plugin Input Mode will cause Duck to react to the audio track which it is attached to. More specifically, the envelope is triggered by the peaks that are closest to the defined Trigger Level. Therefore, if the Trigger Level is set at a high decibel, the louder peaks on the track will cause the envelope to trigger. A lower Trigger Level value will have the opposite effect. So, for example, you have a drum track with a variety of different hits and velocities. Using this mode will allow you to focus on different rhythms within the overall beat.



### Tips

- We would suggest that you start by using this mode on a complex drum beat. Try switching between high and low trigger mode to hear how it effects the rhythm.
- This is a great tool to reduce a something rhythmically complex to individual rhythms. It is very easy to then automate dynamic changes to the rhythm with the Trigger Value and Amount knobs.

### Advanced Trigger Settings



When either Sidechain and Plugin Input mode is selected, the trigger level knob becomes active and a settings icon appears. The trigger knob and advanced settings allow you to control when Duck retriggers the envelope. The settings are:

- **Trigger Level** – When the input audio crosses this threshold the envelope will retrigger. A meter, in white, around the knob shows the current level of the trigger audio (after filtering).
- **Filter** - This allows you to filter the trigger audio, therefore causing only certain aspects to trigger Duck (e.g. just focusing on a kick drum)
- **Hysteresis** - Prevents the audio retriggering until the input level has fallen this much below the threshold. Use this to stop double triggering.
- **Hold-off** - Defines a time period before which the envelope can be retriggered, again useful to prevent unwanted secondary triggers.

- o **Headphone** - Use the headphones icon to audition the incoming signal from the trigger audio. Useful when setting the filter.

### *Lookahead*

In sidechain, MIDI or plugin input trigger modes, there is an additional option to adjust lookahead in the advanced trigger settings. The options are 1ms, 2ms, 5ms, 10ms or 15ms. Use lookahead to catch faster transients that are triggering Duck. If you feel that Duck is triggering slightly after your transients then play around with lookahead.

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