HEAVYOCITY
RAW INSPIRATION®

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1 Prepare to PUNISH!

Thank you for purchasing PUNISH, the first in a new line of plug-in effects from HEAVYOCITY.

From subtle warmth to extreme drive and compression, PUNISH injects character and edge to any mix or instrument track. Modelled after our custom analog signal chains, PUNISH gives you control over Compression, Saturation, Transient Shaper, EQ, and Limiting. At the heart of it all is the global Punish Knob. Simply set your ranges, and use the one knob to dial in the devastation.

1.1 System Requirements

Plug-in formats:

- AAX Native, VST2, VST3, and Audio Unit (AU)
- All available in both 32-bit and 64-bit

Qualified DAW & Format Combinations:

- Ableton Live 9: VST2 32 & 64 Bit
- Cubase 8: VST2 32 & 64 Bit, VST3 32 & 64 Bit
- Logic Pro X: AU 64 Bit
- Pro Tools 12: AAX 64 Bit
- Pro Tools 10.3.5: AAX 32 Bit

Note that this list is not exclusive. PUNISH will run in other DAWs if they support any of the formats listed in the previous section.

System requirements:

- Mac OS X 10.8 or later, Windows 7 or later
- For Pro Tools users: version 10.3.5 or later
- Internet connection is required for activation

Other requirements:

- iLok.com account (USB dongle not required)

2 Getting Started

PUNISH is a plug-in effect, so in order to use it you will need a host program.

When you load the effect, you should see the PUNISH interface (depending on the settings of the host program).

2.1 Presets

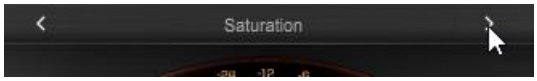
To get you started quickly, PUNISH comes with a number of categorized presets created by industry professionals.

Browsing Presets

There are 2 ways to browse and load presets in PUNISH:

1. Click on the text in the center of the top bar, this will open a menu from which you may select any of the available presets.

2. Click on the arrow buttons to the left and right of this menu to cycle through the presets one by one.



Presets are split into two main sections:

- **HEAVYOCITY** – these are factory presets that are installed with the plug-in. They are read-only and cannot be overwritten.
- **USER** – these are preset files that you have saved.

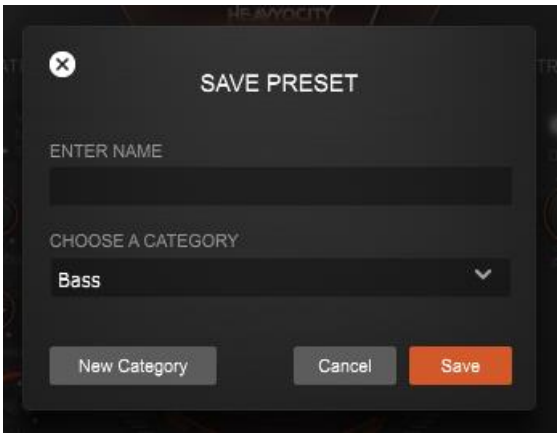
Within these main sections, presets are further split into categories, which should help you find the preset you need to get the sound you want.

Saving Presets

To the right of the controls for loading presets, you'll find two buttons for saving presets:

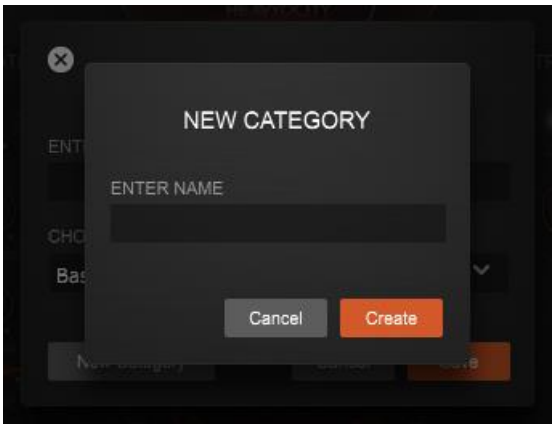
- **Save** – if the loaded preset is a user preset, this button will overwrite that preset with the current settings. If the loaded preset is a factory preset, then this button will function in the same manner as the **Save as...** button.
- **Save As...** – opens a window that allows you to specify a name and category for the saved preset.

When you use the **Save as...** option (or the **Save** option when customizing a factory preset), a window opens allowing you to name and categorize the preset. It will look something like this...



The category in the **CHOOSE A CATEGORY** menu will be that of the preset you customized to create the saved preset.

If you want to add a new category, click the **New Category** button and the following window will appear:



Enter a name into the **ENTER NAME** area and click **Create** to create a new category with the specified name.

You will then return to the **SAVE PRESET** window, where you can name the preset and save it. The **CHOOSE A CATEGORY** menu will automatically be set to the new category.

When the new preset is saved, it will appear in the USER section of the preset menu in the selected category.

In the above image, the new preset is called **My Preset**, and was saved in the new category called **My Category**.

TIP: When you save a preset in one instance of PUNISH, it will automatically be available for all active instances. This is very useful if you need to copy settings from one instance to another.

Preset Location

User presets are located in the following directory:

…/<User>/Documents/Heavyocity/Punish/Presets

Presets are saved as .patch files.

You can copy patch files from this location to share with other PUNISH users.

Note that while you can also re-arrange and delete patch files directly in the folder structure, changes are not automatically represented in the presets menu. A restart of your DAW is required.

2.2 Knob Default Values

Every knob in PUNISH has a default value assigned to it. At any point you can set a knob to its default value by holding the [Alt] key (Windows) or [Option] key (Mac) while clicking on the knob.

3 The Punish Knob

While the individual effects in PUNISH are all of a high standard, the real power of the plug-in comes from the Punish Knob.

The Punish Knob allows you to control multiple parameters with a single control. So if you wanted subtle warmth in a verse, and then a more aggressive setting in the chorus, you can blend between the settings with a single control.

The Punish Knob acts like a large macro control. All other knobs are tied to it, but you can specify the amount of influence it has over them.

As an example, if you load the factory preset **An Introduction** > **Compressor**, you will see red range indicators around the compression controls showing how much the Punish Knob will modulate these parameters.

The small black line in the red indicator shows you the current value of the parameter.

3.1 Assigning Parameters to the Punish Knob

To change the amount of control the Punish Knob has over each parameter, click on the **Edit** button to the lower right corner of the Punish Knob.

When Edit Mode is active, the parameters knobs no longer change the value of the parameter, but instead control the modulation range of the Punish Knob for that control.

As you can see, when Edit Mode is active, the range indicators become white rather than red. This way you can see which mode you are in with a quick glance.

Once you have specified the settings you want, click on the **Edit** button again to exit Edit Mode.

Note that the Punish Knob and the audio processing still work as normal even when in Edit Mode, so you can still check your settings as you tweak the Punish Knob modulation amounts.

4 Effects

PUNISH includes 5 effects, which will be described in detail in the following sections.

Each effect has an on/off LED switch that also acts as an overload indicator.

- An effect is on when the on/off LED is glowing white.
- When the LED glows red it means that the signal is overloading at the output of the effect.

While peaks can sometimes be desirable, if the signal is getting too hot at the output of the plug-in, then these LEDs can help you find the part of the chain where the problem begins.

4.1 Compressor

A compressor is an effect that controls the volume of a signal automatically based on the input level of the signal. In some cases this effect can be used to control the level of a signal to avoid wide dynamic ranges, but in other cases it can be used creatively to alter the shape of a sound.

While the specifics change, the general workings of all compressors are the same:

The compressor monitors the level of a signal, and if this level goes beyond a certain threshold the compressor will start to attenuate the input signal according to a ratio setting. Attack and Release controls can set the "reaction time" of the compressor.

The compressor algorithms used by PUNISH are modelled after boutique, analogue compressors. 3 modes are available, each with a different character.

The PUNISH compressor has the following controls:

- **Mode**:
  - **Console** – smooth Class A style buss compressor
  - **Modern** – an aggressive, fat sound with a classic "knee"
  - **Classic** – warm, vintage FET limiting amplifier
- **Threshold** – sets the threshold level, above which the compressor will start to process the audio.
- **Ratio** – sets the compression ratio. If the ratio is, for example, 2:1, an input level of 6dB over the threshold will result in a 3dB over the threshold level at the output.
- **Attack** – sets the time it takes for the compressor to react to signals as they pass the threshold level.
- **Release** – sets the time it takes for the compressor to react to signals as they return under the threshold.
- **S/C HPF** – controls the cutoff frequency of a highpass filter that is applied to the sidechain of the compressor (the sidechain is what the input level sensor listens to; the filter is not actually applied to the processed audio). This makes the compressor less sensitive to low frequency signals, as they tend to have more power than high frequency signals.
- **Output** – controls the output volume of the processed audio.
- **Mix** – controls the dry/wet mix of the input signal (dry) and the processed signal (wet).

Tips and Notes

- It is possible to route an external sidechain signal into the compressor, so you could, for example, pump a bass sound with a kick drum. This is done by using the sidechain features in you DAW.
- Setting the **Mix** knob to a roughly 50/50 setting is a shortcut to a technique known as parallel compression.
- The meter above the Punish Knob shows the gain reduction applied by the compressor.

4.2 Saturation

Saturation effects emulate the sound of sending a signal into an analogue device at too high a level. Where digital systems would simply clip the signal, analogue systems react to them in a non-linear fashion.

Saturation in subtle amounts can add richness to the sound due to the added harmonic distortion. Some devices are also praised for the warmth they can impart on a sound. At higher levels, saturation becomes full-blown distortion, like that used on guitars in what the hip kids call rock and roll music.

The type of saturation that PUNISH emulates is that of analogue pre-amp circuits. Overdriving a pre-amp in a console is a classic technique for adding character and edge to a sound.

The PUNISH saturator has the following controls:

- **Mode**:
  - **Vintage** – old broadcast format style mic-pre/eq signal overload
  - **Modern** – modern boutique pre-amp for meaty, chunky, and sharp harmonic saturation
  - **Tube** – warm, full-bodied, fat tube saturation
- **Drive** – controls the level of the input signal, i.e. how much the signal is overdriving the device.
- **Threshold** – sets the threshold level at which the saturation will start.
- **HPF** – controls the frequency of a high pass filter than affects the signal being fed into the saturator. The low frequencies will go through the effect unsaturated.
- **Lo Makeup** – controls the level of the unsaturated low frequencies. Note that this control will have no impact on the sound if the HPF control is set to its lowest value.
- **LPF** – controls the cutoff frequency of a low pass filter that can be used to tone down any harshness introduced by the saturator.
- **Output** – controls the output level of the effect.

Tips and Notes

- For maximum distortion, turn the **Drive** knob up and the **Threshold** knob down.
- Bass frequencies can sometimes overpower other sounds going through the saturator, use the **HPF** and **Lo Makeup** controls to get the right tonal balance.

4.3 Transients

A transient shaper, much like a compressor, controls the volume of a signal based on its level. However, a transient shaper concerns itself with the envelope of the sound, rather than the absolute level of the sound. Because of this, a transient shaper can break the sound into two parts: the initial transient (also known as the attack); and the sustain (or tail). The effect then allows you to control the output level of each of these parts independently.

The PUNISH transient effect has the following controls:

- **Attack** – controls the volume level of the percussive attack of the sound.
- **Hold** – sets the length of time of the attack section.
- **Sustain** – controls the volume level of the sustain/tail of the sound.
- **Output** – controls the output level of the effect.

Tips and Notes

- The Transient effect is more sensitive to different inputs than most of the other effects in PUNISH. It won't have much use on a vocal track, but it will have a large impact on pianos or guitars.

4.4 Equalizer

An equalizer (or EQ) is used to shape the timbre of a sound. It does this by splitting the sound into bands of frequencies and giving you control over the level of these bands. This way you can, for example, make a sound brighter by only increasing the volume of a band of high frequencies.

The PUNISH equalizer has the following controls:

- **Routing**:
  - **Pre** – the EQ will be routed before the other effects, so the input signal will be processed by it before any other effect.
  - **Post** – the EQ will be routed after the other effects (except the limiter), so it will process the audio after it has passed through the Compressor, Saturator, and Transient effects.
- **Lo Gain** – the gain applied to the low frequency band.
- **Lo Freq.** – the center frequency of the low frequency band.
- **Hi Gain** – the gain applied to the high frequency band.
- **Hi Freq.** – the center frequency of the high frequency band.

Tips and Notes

- Setting the **Routing** of the EQ to **Pre** can have a big impact on the way the other effects process the input signal.
- Setting the **Routing** of the EQ to **Post** is good for fixing the timbre of the sound after it has been processed.

4.5 Limiter

A limiter is, in essence, the same as a compressor. But, where the compressor uses a ratio to attenuate the signal, a limiter will not let the signal exceed the threshold level at all. This is why a limiter is sometimes called a brick wall limiter (since the audio level cannot exceed the wall set by the limiter).

The PUNISH limiter has the following controls:

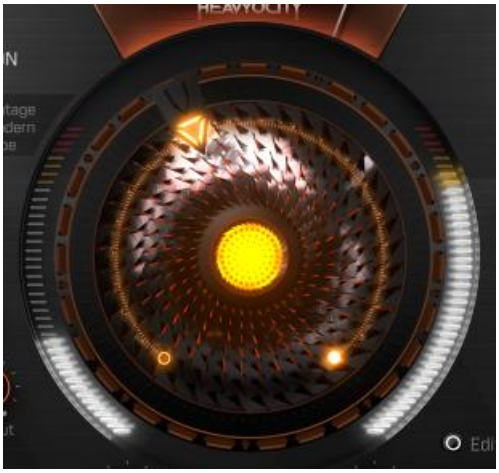
- **Soft** – controls the softness of the limiter, so that rather than being in a state of on or off, it will apply the limiting in a more continuous manner.
- **Release** – controls the release time, similar to the release time of the compressor effect.

5 Output

Below the Punish Knob are three controls that control the signal levels at the very start and end of the PUNISH effects chain.

- **In** – controls the level of the signal before it enters any of the PUNISH effects (including the **Mix** knob).
- **Mix** – controls the dry/wet mix between the input signal (dry) and the processed signal (wet).
- **Out** – controls the final output level of the signal as it leaves the plug-in.

Note that the level meters to the left and right of the Punish Knob show you the levels of the input signal (left) and the output signal (right).



The above example shows a low input level, but a high output level.

6 Troubleshooting and Support

While a lot of effort has gone into making sure PUNISH runs well in all systems, there are certain problems that occur that are sometimes out of our control.

If you have any issues with PUNISH, first check the "Release Notes" text file that was installed with the plug-in. You'll find it in the same directory as this manual.

We try our best to keep this file up to date, but if you are encountering an issue that cannot be resolved after checking the Release Notes, you can contact Heavyocity support by e-mailing support@heavyocity.com

Be sure to include as much information as possible, including at least the following:

- Your name
- The name of the product in question
- The serial number of the product
- Your inquiry/problem
- Your system specification (Processor, OS, RAM, host program, etc.)