elysia

PLUGIN MANUAL

karacter

introduction

SYSTEM REQUIREMENTS

Please check all information on this topic here:
https://plugin-alliance.com/en/systemrequirements.html

ACTIVATION

Details about the activation process can be found in the Plugin Alliance Activation Manual, located in the same folder as this PDF, or online:
https://files.plugin-alliance.com/products/activation_manual.pdf

TECHNICAL SUPPORT

Please contact Plugin Alliance for help:
https://plugin-alliance.com/en/support.html

LET'S GET IT ON!

The karacter plugin is a box full of vibrant colors for your DAW. It covers a complete spectrum including mastering-grade saturation, tube-inspired distortion and glorious destruction, creating manifold highly desirable styles of tonal coloration...

Note: The analog rack version of the karacter offers CV (Control Voltage) inputs for modulating some of its parameters. The DAW is even more flexible in this regard, and we greatly encourage you to experiment with this to achieve even more interesting and organic sounds.

Just apply manual automations, mod wheel tracks and so on to modulate any of the karacter's parameters and plunge into a universe of endless possibilities.

The karacter plugin offers two separate channels which can be set up for linked or unlinked stereo as well as linked or unlinked M/S operation. On a mono channel, it presents itself with a slightly different interface, showing only those parameters needed for processing a single channel.

Enhance your tracks or decimate everything – It's a matter of karacter.

introduction

TRUE EMULATION

How has the hardware karacter been 'translated' into software code? Actually the plugin is the result of a pretty long and complicated development process... The following provides just the basic idea:

Transferring a complex analog hardware into digital code is not exactly trivial, especially if the model is a completely discrete design like the karacter.

The first important task in a project like this is to fragment the electronic circuitry into separate functional blocks. These blocks are translated into software step by step after which they will be reunited to become a functional plugin.

This first result is measured very accurately and then compared to the hardware, which leads to an extensive and very detailed matching process. The work on the graphical user interface (photography, retouching, rendering) takes place at the same time.

The final stage is the calibration of the behavior of all the controllers in order to give the software the 'feel' of the real thing. Finally, the finished code is ported to different plugin interfaces (VST/AAX/RTAS/AU...) and packed into installation routines.

OVERSAMPLING

The karacter plugin benefits from higher sample rates in two ways: In the first place, it profits from a much better resolution especially for high frequency distortion which reaches very high into the spectrum.

Secondly, it reduces aliasing artifacts and therefore brings the curves of the karacter's filter stages even closer to its analog counterparts.

The karacter plugin employs the oversampling technique in order to enjoy these advantages even if lower sample rates are used. This means that the basic sample rate of a project is multiplied by a certain factor inside the plugin without the need to set the complete project to a higher frequency.

This method consumes a certain amount of CPU power, but the audible result speaks for itself. The karacter plugin uses oversampling according to the following rules:

- Project sample rate lower than 50 kHz: 4x oversampling
- Project sample rate lower than 100 kHz: 2x oversampling
- Project sample rate higher than 100 kHz: No oversampling

MOUSE WHEEL SUPPORT

You do not necessarily have to click and drag the controllers of the karacter. Instead, try making your settings with the alternative mouse wheel control without clicking on the specific controller first!

The following shortcuts provide some further comfort:

Fine mode

VST	Shift + mouse wheel
AU	Shift + mouse wheel
PT	Ctrl/Cmd + mouse wheel

Default position

VST	Ctrl/Cmd + mouse click
AU	Alt + mouse click
PT	Alt + mouse click

Linear/Circular mode

VST	Alt

controls

The Master Version of the karacter plugin offers a total of four different modes of operation:

- **Linked Stereo**
  (button 8 on, button 9 off)
- **Unlinked Stereo**
  (button 8 off, button 9 off)
- **Linked Mid/Side**
  (button 8 on, button 9 on)
- **Unlinked Mid/Side**
  (button 8 off, button 9 on)

The individual knobs and switches provide the following functions:

1. **Drive:** Determines the overall intensity of saturation, distortion or destruction. Clockwise means more.

2. **Color:** Changes the harmonics-frequency relation. Middle is flat; turn left for more dub and right for more shred.

3. **Gain:** Sets the amount of output gain. This controller can both cut (turn left) and boost (turn right) the level. Middle is flat.

4. **Mix:** Blends the direct and the processed signal in any desired relation. Left = 100% dry, right = 100% wet.

5. **Left/Right On:** Activates a channel or switches into bypass.

6. **FET Shred:** Switches from mastering-grade saturation (LED off) to tube-inspired distortion (LED on).

7. **Turbo Boost:** Provides an additional kick for truly wild distortion – FET Shred on steroids.

8. **Stereo Link:** Links both channels for processing stereo sources. The specific knobs and switches of each channel now automatically control their corresponding counterparts, too.

9. **MS Mode:** Switches from Stereo to MS processing. The left knobs and bottom switches control the Mid, the right knobs and top switches process the Side.

   Note: A click on the elysia logo will reveal the actual version of the plugin you have installed and the people behind the project.

controls

The Mix Version of the karacter plugin serves two main purposes:

- **Mono Operation**
  When you are calling the karacter plugin on a mono track, the mix version will pop up automatically. Obviously, you will only need a single set of knobs and switches for a single channel.

- **Linked Stereo Operation**
  The Mix Version of the karacter is also offered as an alternative to the Master Version on stereo tracks. The idea is to give you a clearly laid out user interface without any redundant controls for linked stereo processing.

The individual knobs and switches provide the following functions:

(1) **Drive:** Determines the overall intensity of saturation, distortion or destruction. Clockwise means more.

(2) **Color:** Changes the harmonics-frequency relation. Middle is flat; turn left for more dub and right for more shred.

(3) **Gain:** Sets the amount of output gain. This controller can both cut (turn left) and boost (turn right) the level. Middle is flat.

(4) **Mix:** Blends the direct and the processed signal in any desired relation. Left = 100% dry, right = 100% wet.

(5) **On/Off:** Activates the plugin or switches into bypass.

(6) **FET Shred:** Switches from mastering-grade saturation (LED off) to tube-inspired distortion (LED on).

(7) **Turbo Boost:** Provides an additional kick for truly wild distortion – FET Shred on steroids.

Note: A click on the elysia logo will reveal the actual version of the plugin you have installed and the people behind the project.

controls

The **Plugin Settings Toolbar** on top of the user interface and the **Plugin Alliance Toolbar** at the bottom provide additional functionality for your plugin:

1 **Bypass**
Bypasses the plugin completely.

2 **Undo/Redo**
Offers up to 32 steps of parameter history.

3 **ABCD Presets**
Selects one of four banks of parameter settings. *Note:* Calling these banks can be automated in your DAW, which is very convenient and powerful!

4 **Copy**
Copies the actual settings of the user interface to the clipboard.

5 **Paste**
Pastes the settings from the clipboard to another preset bank.

6 **Reset**
Discards all user settings (only in the preset bank actually shown when resetting) and returns to the initial factory setting.

7 **$ Icon (when applicable)**
If you have purchased your plugin using the Plugin Alliance Installment Payments option, the $ icon links to your account so you can make a payment on your lease-license.

8 **Key Icon**
Opens the plugin activation dialog.

9 **? Icon**
Opens a context dialog for accessing the plugin's help documentation, online product page, or any available updates.

modes

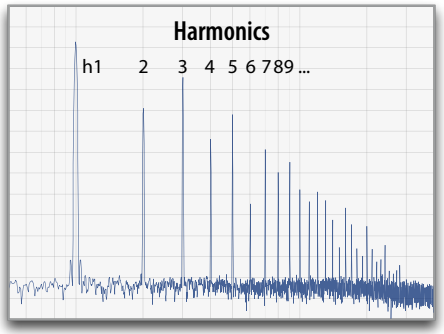
In its Saturation mode, the karacter generates gentle Total Harmonic Distortion (THD) with a soft characteristic curve, resulting in symmetrical clipping. Your sound gets fatter but stays intact – the perfect color for busses, stems and complete mixes.

The karacter can add unobtrusive coloration and thickness to your music by applying subtle (or less subtle) amounts of symmetrical clipping. This mode has a rather gentle characteristic curve and focuses on the uneven harmonics (h3, h5, …).

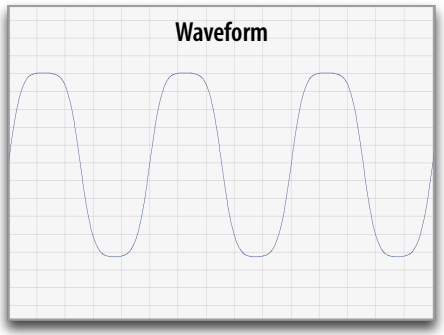
With careful (low) settings of the Drive controller, the karacter can also be used as a special kind of limiter to enhance the loudness of a track: Gentle saturation tames the peaks without sounding distorted and the Gain controller raises the overall level without generating higher peaks than before.

Note: You can always use the Mix controller to blend any desired amount of saturation with your original dry path for even further signal integrity.

The following diagram shows the harmonic spectrum of a sine wave in Saturation mode:



And this shows how the sine wave is shaped by the karacter:



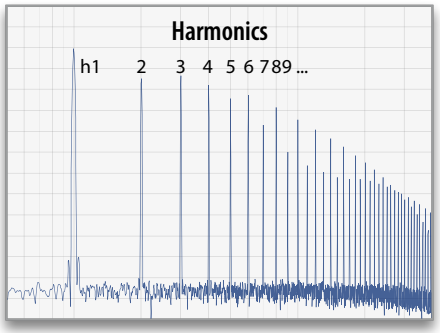
In FET Shred mode, the karacter becomes a different animal... its clipping changes from a symmetrical to an asymmetrical characteristic, which pleasingly reminds of the style a driven tube amp would sound like. More even harmonics (h2, h4, …) come into play, and what has been saturation before is now turned into truly musical distortion.

In the analog world, this mode of the karacter uses Field Emitting Transistors to achieve its effects. These electronic components behave very similar to tubes in many aspects (e.g. total harmonic factor, characteristic curve), and the complete circuitry around the FETs has been designed to behave like a real tube amp, too.

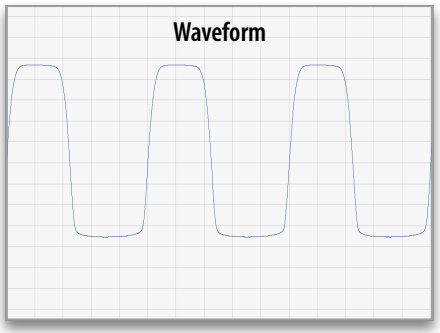
So, will the FET Shred mode work well for guitars, basses, or any other instrument sounding great when played through a tube amp in the analog domain? Absolutely! And there is more, as the extended gain range in FET Shred mode offers exciting tweaks for all kinds of sonic experiments.

Note: Make sure to make extensive use of the Color controller in this mode!

The following diagram shows the harmonic spectrum of a sine wave in FET Shred mode:



And this shows how the sine wave is shaped by the karacter:



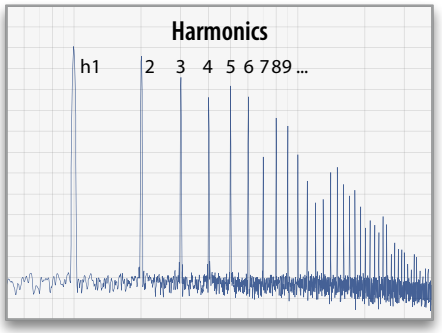
modes

Now, this is pushing the envelope... Turbo Boost puts FET Shred on steroids! So, this is not a completely different mode of distortion, but it shifts the operating point of the FET Shred topology instead. The result is a signal structure which is even more asymmetrical than before: The positive and negative half-cycles are completely different from each other now.

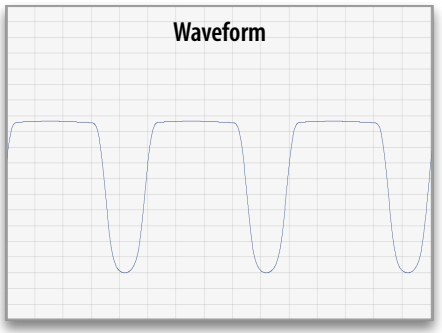
The effect will become most obvious at higher settings of the Drive controller, and when the plugin is fed with higher levels right from the start. The resulting sounds can become quite extreme – just what you have been looking for when dealing with industrial styles, mangling samples, brutal guitar sounds and much more...

Note: Other than on the hardware, you do not need to activate the FET Shred mode first to get access to the Turbo Boost. Treating this as if it was a fully independent third mode makes switching just a little bit more convenient with the plugin.

The following diagram shows the harmonic spectrum of a sine wave in Turbo Boost mode:



And this shows how the sine wave is shaped by the karacter:



modes

M/S technology is commonly known as a variant of stereo miking. This technique uses a microphone with cardioid pattern for the middle signal (M) and another one with bi-directional pattern with an offset of 90° for the side signal (S).

The main advantage of this technology is its mono compatibility. FM radio stations use M/S technology for transmitting stereo signals exactly for this reason.

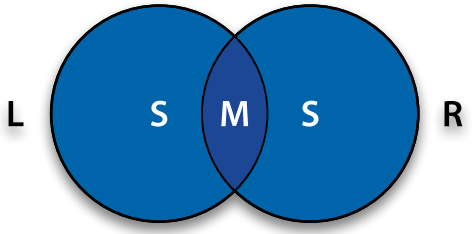
To create M/S signals, the left and right channel of the stereo sum are added to generate the mid (M), whereas the side (S) is created by subtracting the right from the left channel:
M = L+R
S = L-R

To decode an M/S signal back into stereo again, M is added to S for the left channel and S is subtracted from M for the right channel:
L = M+S
R = M-S

The integration of an M/S encoder and decoder into an audio processor generates new potentials that classic stereo devices can hardly offer. One of the main advantages is the possibility to process the middle and side signals separately. This way you can make the center sound more solid without corrupting the original stereo spectrum, for example.

The most interesting option here is the unlinked M/S mode, as it gives you the possibility to process the mid and the side signals completely independent from each other (remember left becomes mid channel and right becomes side channel).

You can apply a high amount of saturation to the mid and leave the side completely untouched, or the other way round, or anything in between... Furthermore, different settings of the gain controllers can be used to create subtle or significant changes within the stereo spectrum.



TECHNICAL SUPPORT

Please contact Plugin Alliance for help:
https://plugin-alliance.com/en/support.html

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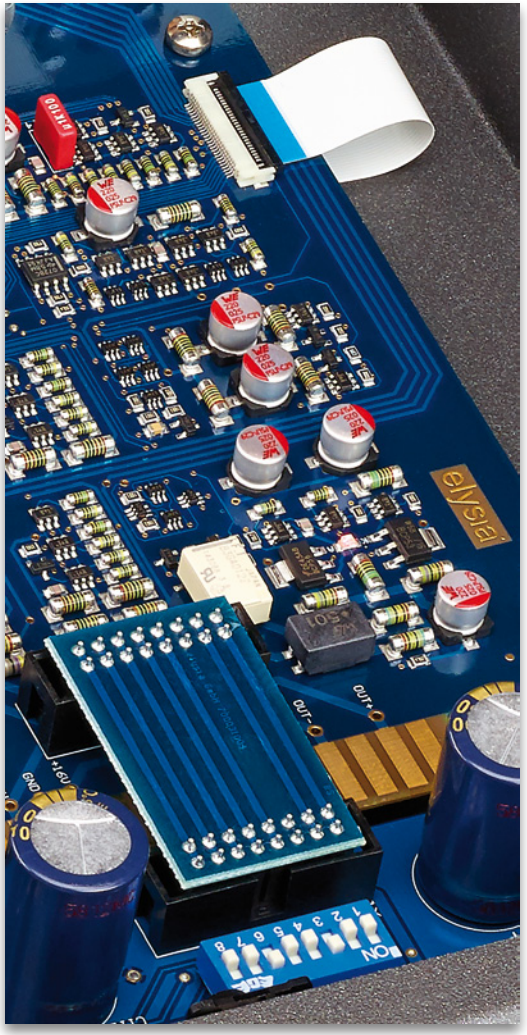

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