

LICENSE

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Freeware license for the 'Rescue' and 'RescueAE' VST Plug-In's.

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INSTALLATION

Put the Rescue.dll as well as the RescueAE.dll file in the VST plugin folder of

your host (Please see info on page 6ff. about differences between both Plug-In's).

OVERVIEW

'Rescue' - analog style modelled signal designer

at a glance:

- introduces spatial imaging as well as sonic resolution improvements to program material
- simple yet powerful solo signal alteration: transient shaping, imaging and depth balancing
- subtle analog style signal colouration
- easy emphasizing of signal attack phases
- creates "in the face" sounds as well as subtle stereo enhancements
- stereo field operation maintains mono compatibility
- signal saturation at high peak levels
- excellent for drum group improvements
- tightens lowend

features and tech notes:

- minimum latency processing
- low cpu usage
- stereo widening preserves mono compatibility
- inherent mid/side processing
- gain and limit operates on per channel base
- switchable signal colouration
- dynamic noise model
- state of the art signal processing and modelling algorithms implemented
- plugin integration is done with Synthmaker software
- performance crucial parts are written in assembler
- 'ANALOG' section is SSE optimized (the m/s section can't)

requirements:

- Windows 98, 2000, XP, SSE support
- Tested and known to work in many VST compatible hosts

WARNING

Lower your listening volume while operating the plugin to avoid hearing damage or damage of speakers or any other equipment.

BASIC OPERATION AND ADVICE

Use this plugin as an insert effect in any stereo or mono channel of your VST host. Be aware that some of the sonic effects introduced by Rescue just work on stereo program material. However, it can be operated both as a mono or as a stereo plugin.

Tip: If you are not familiar at all with mid/side processing please refer to audio engineering resources and get used to it before using this plugin.

Assure the (yellow) On/Off switches to be in 'On' position. Dial in small amounts of the 'WIDTH' knob to apply subtle stereo widening to your audio. A mono signal or the mid audio information of a stereo signal remains untouched.

Dial in the 'PUNCH' knob to apply more punchiness to a mono signal or the mid section of a stereo signal. Alternatively use the 'GAIN' knobs in the 'MID' or 'SIDE' section to perform basic mid/side altering.

Use both to alter the audio signal to taste but remember: a little goes a long way - in most mix situations you will obtain better results by focusing on either improving the punch OR improving the stereo information of that channel.

Use the 'VOLUME' knob to adjust the overall output volume as needed.

ADVANCED USAGE

Turning the 'POWER' switch (left side) to 'OFF' disables the just applied effects but preserves the overall sonic 'fingerprint' of this plugin: Like real analog gear this plugin introduces subtle signal alteration just by inserting it right into the signal chain, e.g. frequency and phase response, noise, crosstalk et al. Further non-linearities or signal dependent alterations appear due to the dynamic processing in the mid/side sections. Depending on your monitoring situation and listening experience you can probably identify some of this rather subtle effects by carefully A/B testing at equal RMS volume levels.

Tip: Use the 'VOLUME' knob on the right side to adjust the overall output and use your VST hosts bypass switch for convenient A/B testing.

Unlike other "analog" simulations this plugin takes advantage of a dynamic noise model. You won't see any noise at the output of the plugin as long as no input occurs. Instead it will be dynamically introduced. If many Rescue instances are used in a whole mix this assures that the overall noise level doesn't mess up in an unpleasant way (especially in low volume sections). However, if you don't want this (and the other non-linear effects) to appear in your mix at all you can

simply turn it off by switching the 'ANALOG' switch to 'Off' position (yellow light of the button dims out). In addition this saves around half the (CPU) processing power needed for the whole plugin.

Assure the 'POWER' switch on the leftmost side is now set to 'ON' to perform the following mid/side processing.

Use the yellow 'MID' and 'SIDE' buttons to activate or disable the specific channel. If both are switched off no audio (and no noise) leaves the plugin. Use this switches for further signal judging purposes while adjusting the both channels as well. This way you can easily identify certain impacts applied to mid or side of the overall (stereo) signal or obtain better decisions on certain applied effect levels. Both switches do **not** work in plugin's OFF mode ('POWER' switch is OFF).

The basic signal flow after mid/side encoding is:

PUNCH -> GAIN -> LIMIT -> Clipping Indicator (for the MID section) respectively
WIDTH -> GAIN -> LIMIT -> Clipping Indicator (for the SIDE section).

Afterwards mid/side decoding applies and the signal is feed into the volume stage and output.

Given that, you are now probably able to perform some different treatments on both channels. Start for example with pretty simple gain adjustments on both channels using the 'GAIN' knobs in each section to alter the signals center or side information. Use the special 'PUNCH' and 'WIDTH' knobs to alter the gain structure just on the signal transients. Combine both as needed.

Important: If there are no transients in the audio content then no effect will happen.

On certain rhythmic and complex program material there will appear a kind of pumping effect when using 'WIDTH' or 'PUNCH' to much or in heavy combination - if so just lower the amount of 'WIDTH' or 'PUNCH' if pumping is unwanted, use limiting (see below) or try to fine tune the applied effect by using the 'RAMP' and 'DEPTH' controls right between both sections. They particularly shape the attack and release behaviour of the transient detector unit. Both are rather more subtle effects and in most situations you should leave 'RAMP' and 'DEPTH' in default position. However, lower 'RAMP' values typically performs better on acoustic material while higher values perform better on electronic. 'DEPTH' can be used to (subtly) improve depth information on certain stereo material.

Tip: Lower 'RAMP' values typically performs better on acoustic material while higher values perform better on electronic material.

Tip: Use the limit function in each section for further signal alteration by turning the 'LIMIT' knobs clockwise.

In position '0' the limiter transfer function is exactly linear and the signal passes untouched. Turning knobs clockwise introduces and now performs more and more limiting. But: depending on the level of the plugins input signal you probably won't notice any clipping and limiting at all. Use your ears for judgement and also the clipping LED's left and right beside the knobs which indicates if clipping would (normally) happen.

Note: The plugins clipping LED's are just rough and not precise indicators.

Note: Due to the plugin's 32 bit internal floating point resolution actually no real clipping occurs **inside** the plugin but after leaving the plugin's output clipping may occur in your plugin chain or host software.

So, this is mostly a further artistic or "balancing" effect (separate on each channel) and smoothes the gain structure of the overall signal for easy handling outside the plugin. Note also that the clipping indication on mid/side is a completely different thing than L/R clipping outside the plug. You may notice as well that you probably won't see any 'SIDE' clipping on regular recordings unless the side section is heavily driven. This is because in typical recordings most of the audio signals energy resides in the center (mid) and not in the side signal. Be aware that additional harmonic distortion is introduced to the signal by driving a signal hard into the limiter. This may be unwanted (e.g. on clean acoustic recordings like piano, acc. guitar etc.) or may be wanted as an special and appropriate artistic effect (e.g. on electronic instruments or for kickdrum shaping).

Finally adjust the output volume to your (and your host and plugin chain) needs using the 'VOLUME' knob.

EXAMPLES

A true acoustic stereo drumloop recording is already optimized by Rescue while using the 'PUNCH' parameter. A rather low 'RAMP' value supports the natural appearance of this effect. Due to this increased punch in the signals center the overall signal impression appears more upfront (the desired effect in this case) and opposed to that the signals room information is decreased due to the attenuation of signals side information. Compensate this (if ever wanted) by applying a little 'WIDTH' as well as 'DEPTH' or a little 'GAIN' in the width section.

Tip: Hit the limiter on drum group tracks to obtain sonic grip.

A stereo group channel needs basic improvement concerning stereo width: Raise 'WIDTH' up to '1' (depending on the transient structure of the material) and increase 'GAIN' in the opposite (mid) section just a little over the top and compensate exactly this with the limiter - so you'll additionally get a little more compact center right as you go (without any compressor usage).

Tip: Experiment with "the big knob" in one section while twiddling "the small knobs" in the other section.

Check out some presets as well to get some further inspiration of how to use Rescue as an creative effect.

However, this plugin was mostly designed to obtain subtle and smooth sound enhancements in the digital domain.

Tip: If you combine 'GAIN'/'PUNCH' or 'GAIN'/'WIDTH' then just lower or improve the amount of audible transient amount by adjusting the 'RAMP' knob.

'RescueAE' – THE BLACKFACE ANNIVERSARY EDITON

Due to the 1.2 release this package now introduces the additional 'RescueAE' Plug-In.

That new Plug-In features a slightly different signal path, some internal rework, 4x Oversampling and a brand new output limiter circuit.

The output limiter is placed right behind the output 'VOLUME' knob so you can additionally drive or reduce the amount of limiting to occur in the output stage.

This is completely new and not available in the normal version.

Both, limiter and 'VOLUME' knob, are disabled when switching 'POWER' off. This way the 'RescueAE' versions signal path behaves slightly different compared to 'Rescue' where the 'VOLUME' knob stays always active even when powering off the Plug-In.

The release parameter of the limiter is fixed to 300ms and there is just one option available: Engage or not. However, the release parameter is available internally, so if your host supports GUI-less operation of a VST fx or automation then you can still access the release time of the limiter (ranging then from 10ms up to 1sec).

The (soft-) limiters in the 'MID/SIDE' section of the AE version are now 4-times oversampled for a much smoother audio experience even on acoustic material.

The oversampling filters are optimized for minimum latency and CPU usage but therefore are not linear in phase. So please keep in mind that this is a coloring device and does not act transparent to the sound.

And now some last tips ...

FURTHER TIPS & TRICKS

- Level your audio input to the plugin to around 0dbFS to perform easy and best inside the plug.
- Use <ctrl> + click on a knob or switch to restore default position.
- Use <shift> + click on a knob to fine adjust values.
- Some Knobs snaps gently into default position if moved slowly over it!!
- If L/R positioning information behaves strange in your stereo recording it might be better/necessary to fix this in front of any mid/side operations in general.
- If really heavy signal alteration is actually necessary on your material it might be better/necessary to first improve the overall signal chain quality (e.g. in a lower quality recording situation).
- If you notice a drop in volume of lower frequencies while inserting Rescue then your signal is not mono compatible in the lower frequency range.
- You can use Rescue as a DC filter just by inserting ('ANALOG' must be on).
- And always remember: garbage in, garbage out ;-)

CREDITS

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