

DiscoDSP NightShine v1.1

Users Guide

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Audio code by Juan Antonio Argüelles Rius
GUI by Jorge Raúl Reales González
Technical support: arguru@discodsp.com

Installation

Double click setup program icon and follow the instructions.

Note: Demo Version doesn't allow preset saving or any kind of automation.

Specifications

General

NightShine is based on [Alesis 3630 peak compressor](#) specs.

Platform	VST (Windows)
Inputs	2
Outputs	2
Precision	32-bit floating point
Allowed sample rates	Any supported (host dependency)

Dynamics processor

Number of bands	1
Threshold	-40.0 dB to 0.0dB
Ratio	1.0:1 to 20.0:1
Attack	0.1 ms to 200 ms
Release	50 ms to 3 seconds
Output	-20 dB to 20 dB (make up)
Threshold range	-inf dB. to 0.0dB, exponential curve.
Gain depth	0% to 100%
Switches	Automake-up, softclip and limiter
Monitor	Input, Gain, Output and Text display + Additional depth control for gain scale.

GUI

Display	Vintage look, with some 3D raytraced parts.
Controls	Attack, Release, Make-up, Ratio, Threshold, Depth and Auto Make-up, Limit and Soft-Clip.
Indicators	Indicator VU Meters showing Input level, Gain level and Output level.

How NightShine works

Threshold (-40dB to 0.0dB)

Sets the level above which signals will be compressed or limited.

Ratio (1.0:1 - 20.0:1 / [limiter mode: infinite:1])

Sets the compression slope, which determines how the output signal will change in relation to the input signal once the input signal exceeds the threshold. The first digit indicates how many dB of input change will cause a 1 dB output change. The higher the ratio, the greater the compression, and the more "squeezed" the sound.

Examples: With a setting of 2:1, a 2 dB input change for signals above the threshold results in a 1 dB output change. With a setting of 1:1, a 1 dB input change results in a 1dB output change (i.e., there is no change to the signal dynamics).

Turning on limit switcher means ratio of infinite:1, so the output level remains virtually constant regardless of input level changes.

Attack (0.1 ms to 200 ms)

This control sets how fast the compressor gain envelope reacts to changes in input level. The longer the attack time, the more of a signal's dynamics are "let through" before the limiting action kicks in. With slower attack times, the limiter responds more to average signal level. This produces a smoother sound that tends to retain dynamic character, but the tradeoff is that the compressor cannot react as rapidly to sudden level shifts.

Examples: Setting a longer attack time with guitar allows more of the pick attack to come through. A longer attack time with kick drum lets through more of the beater "thock." For recording, you may want to trade off response time for smoothness. When used to prevent loudspeaker or power amp clipping, a fast attack time is desirable.

Release (50 ms to 3 seconds)

This control determines how long it takes for the limiter to return to unity gain after going into limiting. With short release times, the limiter tracks every little change in level, producing a potentially uneven or "rippling" effect that decreases dynamics but increases the average output level. Longer release times tend to "squash" the signal more, producing less overall output but retaining more of the signal's dynamics.

Excessive release times can be used as an effect. In the 60s using lots of limiting with long release time on drums was a popular recording technique.

Output (-20 to +20 dB)

The process of reducing dynamics lowers the signal's overall level. Use this control to compensate by adding output gain.

Example: Limiting a signal by 6 dB will make the signal seem approximately 6 dB softer. Compensate by using this control to increase the level.

The 'Auto' (Make Up) switch when turning on applies the approximately compensation needed.

Depth (0 - 100%)

It's used to scale the compression calculated gain, with 0% works like common compressor, with 100% every time the signal raises threshold, the compressor will envelope will attempt to mute audio.

Soft saturation switch

Waveshaper that shapes audio output and results in a more smooth curve rather than hard clipping.

Monitoring

At the left-bottom side of the User Interface we have 3 vumeters showing the input level (IN), compressor gain (GA) and output level (OU).

- Input level (IN) shows the incoming signal level, it's light blue when signal is under threshold level, turns orange when is above threshold level and red when it clips.
- Gain level (GA) shows gain level. This is useful to see measure the compressor 'activity', take careful, the less movement in this bar means that your compressor settings are currently working more as just simple gain than dynamic processing.
- Output level (OU) shows the processed audio level, turns into red when clip. The plugin DSP is mainly divided in 3 parts, spectral enhancer, multiband compressor and the limiter, but you don't have to worry about a endless parameter list, since most all are controlled by the plugin itself.

Version History

Version 1.1

- Enhanced Depth algorithm.
- Several GUI enhancements.

Version 1.0

- Initial Release.
Thanks to Krzysztof Foltman for his help.

Contact

Technical support, coder: arguru@discodsp.com

GFX, web design: raul@discodsp.com

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