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Review by Bill Stunt

Massenburg DesignWorks MDWDRC2

Native Dynamic Range Controller

A dynamics plugin that hears like a human

George Massenburg is a legendary audio innovator, and the latest Massenburg DesignWorks plugin, the MDWDRC2-Native Dynamic Range Controller, is designed to offer transparent gain management aligned with how humans perceive changes in loudness. According to the company, "It will manage gain like a tireless, authoritative hand on the fader."

Watching the Detectors

The core innovation is a pair of Massenburg-designed and patented Variable Exponent Averager (VEA) detection processors working in parallel. The interactivity between the True RMS detectors and their unique control sets was designed to achieve gain management without introducing the non-linear artifacts common with compressors that respond solely to electrical peak or average values.

Mandatory Viewing

The interface is intuitively laid out and simple to use once the underlying principles of the plugin are understood. There are standard controls like threshold and ratio, but some may be unfamiliar. I would suggest the manual be mandatory, along with compelling online video tutorials featuring George himself: massenburgdesignworks.com/videos/.

Teeter-Totter

The VEA detectors are labeled Main and Peak. Main manages the overall body of the track, while peak focuses on the transients. The main threshold control sets the level where gain attenuation begins. Raising the main gain pushes lower-level audio up toward the threshold. That lower-level audio gets louder while the plugin's internal makeup gain pushes levels

above the threshold down. As the manual describes, the threshold is a rotation point like the pivot on a teeter-totter. Keeping this concept in mind is key to using the plugin effectively.

The peak detector manages transients that poke above the threshold. Its gain setting determines how the peak detector responds to the main threshold. Lowering it increases peak sensitivity and raising it does the opposite. Both detectors are constantly "handing off" to each other and combine to present a unified signal to the ratio control.

Slope and Timing

The slope of the compression transition can be refined with the soft controls—counterclockwise results in a rounder compression knee. Keep in mind that due to the rotation point principle and the plugin's inherent interactivity, changes to the knee affect the threshold.

The attack and release settings are managed with the Exponent and Timing controls. You'll most likely want to use the timing control, which sets both attack and release values. Turning the timing control clockwise increases response time and the speed of recovery. Turning counterclockwise decreases sensitivity to loudness changes and slows the recovery time.

The Exponent solely controls attack values—useful for tracks requiring a speedy response or for intentionally introducing obvious non-linearity. Both values are expressed as numbers that relate to the underlying math, but they also generate secondary indicators showing approximate times in milliseconds.

A secondary release time can be set to deal with a track with wide and rapid level changes. The Release Override can force a faster release for signal out of the bounds of the timing settings.

Again, be mindful of how changes to one parameter can affect another. The manual does a great job of explaining the interdependencies.

Visual Aids

The Main, Peak, Soft and Release Override toggles flash with incoming signals. The informative meter uses various colors to indicate the main and peak gain reduction, knee slope, etc.

There's a Look Ahead function with delay compensation adjustable by samples, and external and internal side chains. The latter inserts an ITU BS1170 loudness normalization filter.

A host of additional utility-like features are documented in the manual.

No Compromise Dynamics

The plugin design focuses on what you hear more than what you see, and nuanced timing moves get you quickly to tracks that breathe with the tempo and feel of the song.

I've been getting great results managing the gain of very dynamic acoustic guitar tracks. Pulling the main gain up to the threshold adds body to the track while delivering consistent levels with transparently managed peaks. Slowly adjusting the timing, slope and ratio results in very solid yet dynamically open tracks.

I'm not always happy with the tradeoff between punchy tracks and noticeable compression artifacts when it comes to drum bus compression. Though it can generate these non-linear (overly crushed) artifacts, I've been using the MDWDRC2 to dial in natural, open and alive drum sounds that punch effectively through a mix with no compromise. Having a detector solely focused on the peaks allows for smoother, less obvious dynamics control. The quality of these detectors, plus the extensive interactive control set, leads to astonishingly natural results.

Being Transparent

The Massenburg DesignWorks MDWDRC2-Native is by far the most transparent dynamics plugin in my folder. That's a real plus, but my main selling points are how different this plugin is from all my other compressor/limiters, along with how great it sounds—or doesn't sound.

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Price: $399
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