

# DDMF NoLimits Manual

Thank you for using DDMF NoLimits lookahead limiter! The interface has been designed such that most things are probably self-explanatory. Nevertheless we recommend to look at this manual at least once... □



## Installation:

**WINDOWS VST:** Save the 32 bit and/or the 64 bit dll file in your standard VST plugin folder (e.g. C:\Program Files\Steinberg\VSTplugins) and restart your VST host (if you want to use both 32 bit and 64 bit versions of the plugin, please save them in different subfolders. LinComp will now be available as an insert or send plugin.

**WINDOWS RTAS:** Save the .dpm-file and the .rsr-file in the Digidesign plugin folder (C:\Program Files (x86)\Common Files\Digidesign\DAE\Plug-Ins or C:\Program Files\Common Files\Digidesign\DAE\Plug-Ins). The effect should now appear in Protool's plugin selector.

**MAC VST/AU:** the AU and the VST version come in 32 bit and 64 bit, which however reside in the same bundle. For the AU, save the .component bundle in the standard Audio Unit folder (usually

/Library/Audio/Plugins/Components). For the VST, save the .vst bundle in /Library/Audio/Plugins/VST. If necessary, perform a rescan of your plugins. ColourEQ should appear as a VST or Audio Unit in your host application.

MAC RTAS: please save the .dpm-bundle in the standard Digidesign plugins folder (Library/Application Support/Digidesign/Plugins). After restarting Protools, the plugin will be available.

### Usage:

A limiter keeps the audio signal below a certain threshold by automatically bringing the level down when this threshold would be exceeded by your material. The nice thing is that you gain “headroom” that way: if you keep everything below, say, -3 dB, you can afterwards increase your overall level by 3 dB without going above 0 dB (which would cause digital clipping during rendering to .wav, .mp3, ... files). The NoLimits limiter lets you do both things in one step: turning the “Thr”-knob to decrease the threshold from -0.1 dB down to a minimum of -20 dB while at the same time having the “AutoGain” button pressed will automatically make use of the new headroom: the signal will get noticeably louder. This can be a “dangerous” way of using a limiter, though, since the human ears will usually find louder levels more pleasing. As during the process of gain reduction the audio signal will be more and more squashed (and even distorted, at extreme threshold settings), it is often advisable to switch off AutoGain and first turn the threshold knob until you reach a point where the negative effects become obvious. Then, push back a little and only THEN use AutoGain. This way you judge the effect of the limiter at constant sound levels, as your audience will do as well.

The left voltage meter (with “GR” written on it) will show you how much the gain of the signal has to be reduced at any given time to stay below the chosen threshold. The “Peak” voltage meter shows the peak amplitude of your audio signal AFTER being processed by the plugin. Finally, the “RMS left” and “RMS right” labels indicate the current root mean square signal in the left and the right channel, respectively. Again, a word of caution is in order: these days the tendency is to make everything as loud as possible, often severely compromising the dynamics. Usually it is sufficient to reach single digit RMS levels in order to be competitive in terms of loudness. Once you reach -9 dB or higher please listen carefully whether that extra decibel is really necessary!

NoLimits can be used in simple or advanced mode. By clicking the “Advanced” button you can switch between the two modes. In advanced mode, additional knobs are available to fine-tune the limiting algorithm: the look-ahead time window can be changed, as well as the attack and the release time. Finally, the output ceiling can be adjusted as well.

The look-ahead time determines how far “in the future” NoLimits can detect transient peaks. Shorter times can lead to higher loudness but ultimately also to higher distortion. Apart from transient-detection, NoLimits consists of an almost-brickwall compressor that reacts slower than the transient-detection stage to avoid distortion for smoother changing signals. The attack and release times of this compressor stage can be adjusted with the “Attack” and “Release” knob. Shorter attack times lead to less loudness and less distortion, with the release time it's precisely the other way round. Play with attack, release and threshold until you've found a setting that's loud enough while still sonically pleasing.

With NoLimits you have the option to dither your signal after the limiting process. This is necessary if the limiter is the last element in your effect chain (as it is usually the case when

mastering) and you want to render to a format that has lower bit depth than the 32 bit that NoLimits is using internally. Often your host application will have a dithering option as well, but just to be on the safe side, a state-of-the-art dithering algorithm has been included in NoLimits.

*Demo restrictions: about every 30 seconds the audio level drops for a second.*

Questions/feedback: please contact [support@ddmf.eu](mailto:support@ddmf.eu)