D2 compressor was developed by **de la Mancha**
It is a VST compressor for Microsoft Windows.

:: Introduction

D2 compressor is an all-rounder compressor with an easy to use interface. It demonstrates the compressor algorithms of its big brothers, *bathtub* and *sidearm*, while keeping the interface simple for quickly dialling in some common settings. D2 can be heavy or subtle, razor quick or gentle, clean or dirty and is happy as an insert or buss compressor.

If you are more of a tweaker, you might want to try the demos of *bathtub* and *sidearm* compressors.
www.delamancha.co.uk/bathtub.htm
www.delamancha.co.uk/sidearm.htm

bathtub offers a flexible dual compressor set up, while *sidearm* features a very tweakable sidechain path. Both have internal and external sidechains, RMS or peak, mid/side and L/R, parallel compression and comprehensive metering.

D2 compressor is inspired by the design of the hardware C2 compressor from Smart Research, but is not intended as an emulation or exact replica. You can find out more about the C2 at the Smart Research website www.smartresearch.co.uk

:: Features

- Stereo compressor with gain reduction meter
- True stereo, each channel is compressed independently
- Threshold down to –40dB
- Ratio 1.5:1 to infinity
- Attack from 0-30 ms
- Release from 5ms to 2.4s
- Make-up gain to 20dB
- VU meter shows actual and peak levels of gain reduction
- Dirt option gives added distortion and enhancement
- All control parameters named and mapped to midi CC

:: Installation

To install D2, you should copy the D2.dll file from the zip into your VST directory and install in your host as you would any other VST effect.

To uninstall, simply delete the D2.dll file and the D2 folder.

:: Compression basics

A compressor is a form of automatic volume control. It is the equivalent of someone listening to music and turning the volume down for the bits that get too loud. Of course, a machine or plug-in is much quicker to react and more repeatable.

Compression works by detecting the loudness of the signal, and trying to keep it below a certain limit, called the threshold. If the audio is below the threshold, the compressor does nothing. If it is above the threshold, it turns the volume down until the input goes back below the threshold. This reduces the dynamic range (the

difference between the quietest and loudest bits) which can be useful for things like vocals, where the performance might vary in volume over the song, or as a sound design effect to make drums more powerful.

The ratio determines how much the compressor reduces the peaks back down towards the threshold. A gentle ratio will only reduce the peak partially towards the threshold, where a greater ratio will reduce the audio much closer to the threshold.
A ratio of 2:1 will reduce a peak of 2dB over threshold to 1dB over the threshold
A ratio of 10:1 will reduce the same 2dB peak down to only 0.2dB over threshold

The attack determines how quickly the compressor reacts to reduce volume, the release determines how long it takes to stop compressing after the audio returns below the threshold. A short attack is used to clamp down on peaks immediately, longer attack will let transients through before clamping down. Short releases can be used for pumping or rhythmic effect, longer releases make the compressor more subtle.

The make-up gain is used to raise the overall output back up, to compensate for the compression of the peaks.

:: Controls

Only Threshold and Make-Up are continuous knobs, the others snap to specific settings

Threshold (0 to –40dB)
This is the limit above which the compressor is triggered. D2 will try to keep the audio below this threshold, although the attack and ratio settings will determine how strongly it will manage this, and so some peaks may go over the threshold. It can help to start the threshold at 0dB and reduce it slowly until you can see the meter starts to show the compressor is acting on the signal.

Ratio (1.5 to L)
1.5:1 is the gentlest ratio, which is more subtle but will allow audio to go over the threshold
L is the setting for limiting, and is effectively a ratio of infinity, preventing any audio going over the threshold

Attack (0 to 30ms)
From snappy quick clampdowns, to gentler attacks that let the transient through

Release (5ms to 2.4s)
Super quick to slooooow release times

Make-up (0-20dB)
Use the make up to compensate for the threshold setting reducing the overall volume.

Dirt (on/off)
When on, it's adds some dirty mojo enhancement to the output. Lovely/Bad depending on your taste.

Meters
The meter shows the amount of gain reduction in dB, which is by how much the compressor is reducing the volume. If the meter doesn't move from the right hand side, it means nothing is happening. If the meter is glued to the left hand side, it means the audio is in constant compression by more than 40dB and probably sounds awful. Either way, you need to tweak the threshold knob so that needle is bouncing back n forth a little more.
The needle shows the instantaneous value, the purple swipe shows the highest peak value

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:: Credits

Thanks to Jeff McClintock for creating SynthEdit and to the 3rd party SE module developers, without which this plug-in wouldn't exist.

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Links	
bathtub	http://www.delamancha.co.uk/bathtub.htm
sidearm	http://www.delamancha.co.uk/sidearm.htm
SynthEdit	http://www.synthedit.com/
Dave Haupt Modules	http://www.dehaupt.com/SynthEdit/semodules.htm
Chris Kerry Modules	http://www.chriskerry.f9.co.uk/
Christian Budde	http://www.savioursofsoul.de/Christian/
Smart Research	http://www.smartresearch.co.uk/

:: About the Developer

de la Mancha lives, eats, dreams and breathes VST plugins, seeking to bring randomization and modulation to the masses. He is also a producer of odd-skool breakbeat, downtempo glitchy beats and other assorted bleeps and noises. You can find his music at www.papadodo.co.uk www.3x0.co.uk and www.mono-log.co.uk

Sign up for the newsletter if you want to be kept in touch about plug-in releases and updates:
www.delamancha.co.uk/contact.htm