# **DMG AUDIO** AUDIO TOOLS CRAFTED WITH LOVE

## TrackComp

## Contents

1	Intro	oductio	on and a second s	4
	1.1	Syster	m Requirements	4
		1.1.1	Windows	4
		1.1.2	Mac OS	4
	1.2	Install	ation and Setup	4
		1.2.1	How to Install on Windows	4
		1.2.2	How to Install on OS X	6
2	Get	ting Sta	arted With TrackComp	8
3	A Pi	ragmat	ic Guide To Compression	9
4	Мос	lels		10
	4.1	DMG		11
		4.1.1	Controls	12
		4.1.2	About	12

4.2	E-Channel	13
	4.2.1 Controls	13
	4.2.2 About	13
4.3	G-Bus	14
	4.3.1 Controls	14
	4.3.2 About	14
4.4	76D	15
	4.4.1 Controls	15
	4.4.2 About	16
4.5	2A	16
	4.5.1 Controls	17
	4.5.2 About	17
4.6	76A	18
	4.6.1 Controls	18
	4.6.2 About	18
4.7	160	19
	4.7.1 Controls	19
	4.7.2 About	19
4.8	Zener	20
	4.8.1 Controls	20
	4.8.2 About	20
4.9	2k5	21
	4.9.1 Controls	21
	4.9.2 About	22

	5.1	Contro	ols	23
6	Oth	er UI		27
	6.1	The M	lenu Bar	27
		6.1.1	DMGAudio Logo	27
		6.1.2	Oversampling	28
		6.1.3	A/B and Copy To	28
		6.1.4	External sidechain selection	28
		6.1.5	Bypass	28
	6.2	Preset	ts	28
		6.2.1	Previous / Next	29
		6.2.2	Preset Menu / Name	29
	6.3	Resize	θ	30
7	Τιοι	ublesho	poting	31
	7.1	Get in	touch	31

## 1 Introduction

## 1.1 System Requirements

#### 1.1.1 Windows

The TrackComp plugin works with Windows Vista, 7, 8, and 10, 32bit and 64bit. VST, VST3 and AAX are supported in both 32bit and 64bit hosts. RTAS is supported in 32bit ProTools 7 or newer.

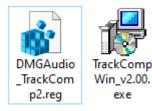
#### 1.1.2 Mac OS

The TrackComp plugin requires OS X 10.7 or newer on Intel Mac. VST, VST3, AU and AAX are supported in both 32bit and 64bit hosts. RTAS is supported in 32bit ProTools 7 or newer.

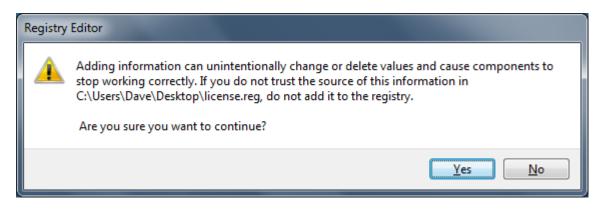
#### 1.2 Installation and Setup

#### 1.2.1 How to Install on Windows

You need two files to install; the plugin installer and the license file. Both are available from the Downloads area of the DMGAudio site whilst logged in. If you're using a demo, download the installer from the site, and use the form to have your license file emailed to you.



#### Double-click license.reg, and this box will open:



Click "Yes" and the license is installed.

Now double-click the zip-file which contains the installer.

Double-click the installer; it will look like this:

🕵 Setup - DMGAudio TrackCo	mp — 🗆 🗙
	Welcome to the DMGAudio TrackComp Setup Wizard
	This will install DMGAudio TrackComp 2.00 on your computer.
	It is recommended that you close all other applications before continuing.
	Click Next to continue, or Cancel to exit Setup.
	Next > Cancel

Click "next" (changing any options if you need to), and your plugin is installed! Reload your host, and enjoy!

#### 1.2.2 How to Install on OS X

You need two files to install; the plugin installer and the license file. Both are available from the Downloads area of the DMGAudio site whilst logged in. If you're using a demo, download the installer from the site, and use the form to have your license file emailed to you.

Name	
DMGAudio_TrackComp_lice	nse.tar
TrackCompMac_v2.00.zip	

If you are using Safari, one or both of these files may be automatically unzipped for you. If not, double-click them to decompress them, so you get this:

Name	^
DMGAudio_TrackComp_license.command	
DMGAudio_TrackComp_license.tar	
💗 TrackCompMac_v2.00.pkg	
TrackCompMac_v2.00.zip	

Double-click "license.command" to install the license. The license will install, and you'll get the following message to confirm:

	TrackComp license installed OK!	
4		
	_	OK
		UK

Now double-click the installer, and it will launch. It looks like this:

	🥪 Install TrackComp 2.00
	Welcome to the TrackComp 2.00 Installer
Introduction	You will be guided through the steps necessary to install this software.
<ul> <li>License</li> </ul>	
<ul> <li>Destination Select</li> </ul>	
<ul> <li>Installation Type</li> </ul>	
<ul> <li>Installation</li> </ul>	
Summary	
AUDIO TOOLS CRAFTED WITH LOVE	
	Go Back Continue

Click through until it installs, and everything is set! Now relaunch your host and enjoy!

AUDIO TOOLS CRAFTED WITH LOVE

## 2 Getting Started With TrackComp

TrackComp is a compressor designed for musicians, producers and mix engineers. It has comparatively low CPU usage, zero latency, a streamlined workflow and features a collection of analogue and digital compressors.

The units included are:

- DMG (Digital compressor)
- E-channel (British console channel compressor)
- G-bus (British console bus compressor)
- 76D (Revision D FET compressor)
- 2A (1960s valve and opto compressor)
- 76A (Revision A FET compressor)
- 160 (Early RMS/VCA compressor)
- Zener (Zener-diode bridge compressor)
- 2k5 (American bus compressor)

The phrase "SPICE simulation" commonly refers to using physics to predict the behaviour of a circuit, using a particular mathematical strategy. It is a method for circuit simulation that forms the foundation of the tools that electronic engineers use for design.

Our approach has been to optimise SPICE for real-time usage; typically a simulation takes between ten and a hundred times as long to execute as the audio it is processing. We are very proud to have optimised implementations that typically run at <1% CPU core usage on modern processors.

Typically hardware modelling relies on the expertise of the designer to match the unit. SPICE instead creates a mathematical description of the unit from the circuitry itself, yielding a result as accurate as physics. This means we can capture **all** behaviours of the hardware.

In cases where the hardware had stepped controls, we have implemented these exactly, but in some cases also allow you to pick between switch settings to increase functionality.

## 3 A Pragmatic Guide To Compression

Compression can make drums hit harder, or softer, even out a vocal performance, add grit and dirt, glue elements together. In TrackComp we've included a palette of compression to cover all these options.

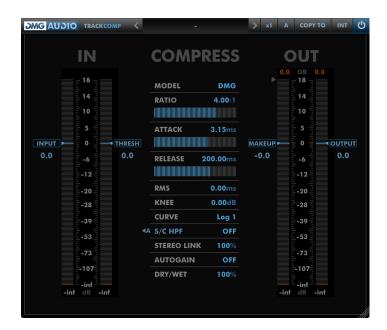
Textbook compression is about being able to control transients, and level-out signals. To make transients pop out, use a slow attack, a high ratio, a low threshold, and adjust the release time to taste. To push transients back, do the same with a fast attack. The attack time lets transients pop through, or catches them. The release time determines how quick it is to forget what it was doing. Ratio controls the overall intensity of the effect - if you're new to compression using high ratios will make the effect easier to hear. The threshold is set relative to your incoming audio level, and determines how much of the signal triggers compression.

To level-out a signal, use a slow attack and release; the compressor will follow average level, ignoring transients. RMS also helps with this, such as in the E-channel circuit. To crush a signal, use fast attack and release, which will rapidly act to maintain the same level, rendering all your transients at the same level.

For a single drum channel, to get a characterful "pop" on the transients, try the E-channel. For a mix, the G-bus does a good job of gluing elements together, and also adds its own unique character to transients. The E and G capture the cleaner production aesthetics of the 80s and 90s. For "dirt", the 70s sound comes from the 76D model, which is ubiquitous in rock music, and can be described as "aggressive", "hard", "dirty". The 60s sound comes from the valves in the 2A model, which generally has very gentle leveling-out compression character, often described as "fat", "warm", "round".

Finally, it's worth mentioning that if a circuit has asymmetric distortion (the 76D and 2A for instance), you can often see some DC generated in your output; this will be largely filtered out in the design of the circuit, but it may be unexpected. You can use the Output gain instead of Makeup to get clean gain.

## 4 Models



TrackComp has a set of controls which are always available, plus model-dependent controls. The model is selected using the **Model** dropdown.

The **Input**, **Output** and **Wet/Dry** are "clean" digital gain. Input is applied globally - it will affect the Dry signal, the compressed signal and any external sidechain input. Output is applied after **Makeup** gain to the compressed signal. The **Makeup gain** increases gain when dragged downwards. This direction provides greater throw to increase possible range and so that a rough symmetry between threshold and makeup exists. The Wet/Dry crossfade is applied to the Dry signal (input signal via Input gain) and the compressor output (input signal, compressor, makeup gain, output gain). Clicking on the **Wet/Dry** label will toggle between the current value and 0% allowing you to quickly audition the Dry signal. Alt-clicking the Wet/Dry label will toggle between the current value and 100% allowing you to quickly audition the Wet gain.

**Autogain** allows you to pick either the Makeup or Output gains to be automatically adjusted (using an ITU1770/LKFS-based perceptual level-matching algorithm) as you alter settings, in order to keep output level approximately consistent. Depending on the model, makeup gain may increase distortion from the circuit, whereas output gain is always clean.

**Stereo Link** (available only on stereo instances) allows you to determine the degree to which both channels experience the same gain reduction. At 100% the compression will be identical for both channels (which keeps the stereo field intact). At 0%, the compression is completely independent for L and R channels. In the case of 100% linkage, CPU optimisations are applied to nearly halve the CPU usage.

Some models include a **Sidechain** filter, which is described in a later section.

Threshold determines the level above which the compressor attempts to reduce the level.

**Ratio** determines how aggressively the compressor attempts to reduce the level. At Inf:1, it acts as a limiter, attempting to prevent any signal from exceeding the Threshold level. At 1:1, the compressor will apply no gain reduction.

Values such as 1.2:1 to 1.4:1 are generally used for gentle compression. If you are after a firmer compression on instruments and vocals, it is suggested that you try values such as 2:1 to 4:1. Heavier compression can be achieved with values between 10:1 and Inf:1.

**Attack** determines how effective the compressor's attempts to reduce level are. With an Attack time of 0, the compressor can instantaneously reduce level in response to input. However, often allowing some of the peak of the input to "pop through" is highly desirable. Attack times from 0 to 10ms give extremely fast, aggressive limiter-like behaviour.

Times between 10ms to 50ms provide a softer, smoother behaviour characteristically found in older compressors, and allow you to finely adjust the transients of drums and instruments.

Longer attack times give very gentle, smooth changes in gain reduction, such as might be used for tracking gain changes in a recording.

**Release** determines how quickly the compressor will return to a default state of not reducing the gain, once a loud signal has been compressed and has passed. Quick Release times are used for clipping peaks, so that the gain reduction is abated quickly once the peak has been handled. From 50ms to 150ms, the compressor will have mostly recovered from compressing a kick drum before the next kick drum arrives; this range represents a "beat".

#### 4.1 DMG

	MODEL	DMG
	RATIO	4.00:1
1	ATTACK	3.15ms
	RELEASE 2	
	RMS	0.00ms
	KNEE	0.00dB
	CURVE	Log 1
₹A	S/C HPF	OFF
	STEREO LINK	100%
	AUTOGAIN	OFF
	DRY/WET	100%

#### 4.1.1 Controls

**RMS** determines the timing used for RMS detection. At 0, the compressor responds to the signal peaks. Increasing the RMS timing allows you to blend towards a smoother, RMS-compressor response.

**Knee** gives you a modern, digital Knee, which is symmetric around the threshold. Across the Knee, the Ratio blends gently from 1:1 to the Ratio setting. As a result, signals just below the threshold will receive some compression, which increases towards the Ratio setting as level increases. A 0dB knee jumps directly between inaction and compression; often described as a "hard" knee. The bigger the knee value, the "softer" the knee, and more gradual the smoothing around the threshold.

Despite being a clean digital compressor, the DMG mode can provide a range of dynamic response types based on circuit modelling of hardware. The **Curve** setting determines the style of curve used. Log is the typical "textbook" response used in modern designs, whereas Lin provides older analogue responses. Each setting provides a different character, which may suit your material. In general, if Log is providing what you need, adjusting between Log 1, Log 2 and Log 3 will make subtle alterations to the compression which may be of interest. Lin has a very different character to Log, and will entirely "miss" short peaks, in a style typical of vintage units. Again, switching between Lin 1, Lin 2 and Lin 3 will give you different takes on the compression behaviour. S-curves are a combination of Lin and Log response which are extremely smooth, at the expense of missing some transients. For a detailed discussion of compressor response types, see the **Compassion** manual (Attack, Release and Attack/Release Parameter sections).

#### 4.1.2 About

The DMG model is based on the Compassion engine. We identified the most common configurations and condensed them into the Curve setting. It's a clean digital compressor capable of emulating the compression characteristics of many other compressors. When clean, predictable behaviour is required, this is what you need.

## 4.2 E-Channel

	MODEL	E-Channel
	RATIO	4.00:1
	ATTACK	3.15ms
	RELEASE	
<b>€</b> A	S/C HPF	OFF
	STEREO LINH	<b>(</b> 100%
	AUTOGAIN	OFF
	DRY/WET	100%

#### 4.2.1 Controls

The E-Channel compressor is implemented on a mixing desk, and in order to save surface space, no makeup gain is provided; instead the circuit automatically increases gain, following the Threshold and Ratio controls, to attempt to keep output gain constant. It is widely disputed as to how effective this is. The **Autogain** menu for the E-channel includes an additional "DESK" option, which will configure the Makeup gain to follow the Threshold and Ratio settings as the desk does.

#### 4.2.2 About

This is arguably the most used analogue compressor in history. Every channel of the E and G series consoles included this circuit. It served the purpose of being the "stock" compressor for many console users for years. When you need a simple, clean compressor with a little more analogue edge, this is the unit. It features a very short RMS detection time, a characterful attack response, and a program-dependent release. It's based around dbx VCA chips and has a very clean signal path.

### 4.3 G-Bus

	MODEL	G-Bus
	RATIO	2:1
		3.15ms
	RELEASE 20	
	AUTORELEASE	OFF
٩A	S/C HPF	OFF
	STEREO LINK	100%
	AUTOGAIN	OFF
	DRY/WET	100%

#### 4.3.1 Controls

The G-Bus compressor has a switched **Ratio**, offering 2:1, 4:1 and 10:1 ratios. These ratios are far from exact, and the 2:1 has two different ratios depending on how far over the threshold the signal reaches.

The compressor also has a switched **Attack** time. Two tiny red markers indicate the min and max times that the hardware offers, and you can jump between the switch positions from the unit by holding Alt whilst dragging. You can also drag the slider to any position to access times that the hardware does not provide.

As with Attack, the **Release** time is switched on the hardware. Again, red markers indicate min and max hardware times. And again, holding Alt will allow you to select the hardware switch values.

The hardware also offers an **Autorelease** button, which is accessed on the hardware as a position for the Release switch. To engage autorelease, click this control ON, and the manual release will be disabled.

#### 4.3.2 About

This module comes from the center section of the ubiquitous British consoles, and could be patched in as compressor on a mix bus. It was originally based around a dbx VCA chip, which gives a very clean signal path, but features an unusual simulated-feedback sidechain design. The first incarnation of this compressor allowed linked quad-bus compression, so the design has one "inner" feedback compressor, which controls the gain reduction of all channels on the bus. It is

often described as being able to "glue" a mix together. The audio path is clean VCA, and whilst the sidechain circuitry uses the same VCAs, the design adds in enough idiosyncrasy to give interesting behaviour.

## 4.4 76D

MODEL	76D
RATIO	4:1
ATTACK	3.15ms
RELEASE 2	00.00ms
Q BIAS	0.00%
STEREO LINK	100%
AUTOGAIN	OFF
DRY/WET	100%

#### 4.4.1 Controls

The hardware features a set of "radio" buttons for selecting **Ratio** between 4:1, 8:1, 12:1 and 20:1. Engineers discovered that the unit can produce different ratios if multiple buttons are pushed in together, defeating the mechanism. Most commonly this is referred to as "all buttons in" mode, or "British" mode. This is also included on the menu.

The **Attack** control on the hardware is installed in reverse to most compression attack times; we have not deliberately copied this unintuitive behaviour. The minimum and maximum hardware times are indicated with a tiny red marker on the slider. You can snap-to minimum or maximum time by holding Alt whilst dragging. Be advised that, identically to the hardware, this control can be subtle, or difficult to hear.

As with Attack, the hardware has the **Release** control installed in reverse. Again, we have kept to usual conventions. Min and max range are displayed with markers, and holding Alt will allow you to snap-to hardware min or max. The hardware knob covers most of its travel within about 45 degrees of adjustment; we have instead mapped it into a more usable space.

The **Makeup** on the hardware is implemented by an output drive stage. Driven carefully, this stage can be comparatively low distortion. The Makeup control in the plugin covers the top 40dB of range from the hardware (from 5 o'clock back to 10 o'clock on the dial). If additional attenuation is needed you can use the output gain without significant loss of accuracy.

Every FET is different, so units get calibrated. The **Q Bias** is a little adjuster tweaked with a screwdriver that's set up to compensate for the FET. At -5% the unit will behave more politely. At 5%, the unit is more aggressive. The default is 0%, but you may find a lower setting more comfortable if you're used to the behaviour of software emulations.

#### 4.4.2 About

Is that a transistor? *Not quite - it's a Field Effect Transistor.* What's the difference? *It's similar, but a FET acts more like an electronically-controlled slider.* That's interesting. I have a mic pre here. Maybe I could use this to make an automatic volume adjuster? If I just feed the output of the mic preamp into a level-detection circuit, and use that to reduce the volume, then in theory... that should keep the volume level! Imagine that! A limiter without using any valves or optoisolators! I shall put it in a silver box and paint a blue stripe over the VU meter!

*It's very impressive, but it's also very noisy and distorts.* I will invent a Low Noise circuit! It will work by looking at a point in the mic preamp and using that to determine when the signal is getting too loud - like a compressor inside a compressor! Oh... my tin of blue paint is empty. Well, black is always classic.

This unit is the sound of rock music. It's what you use on guitars, vocals, a drum mix, anything you can find that you want to give an aggressive edge. Low Noise circuit or no, it bites. The sidechain circuitry is incredibly imprecise, the output stage is held together with string, and the mic preamp is still distorting best it can. If you disable compression and turn all the gains up, you can **melt** other pieces of kit with it. Until dbx built VCAs, this was the gold standard for transistor compressors. If you push all the buttons in, it goes wild and reduces the audio to pulp.

#### 4.5 2A

MODEL	<b>2</b> A
RATIO	Comp
ATTACK	3.15ms
RELEASE 20	
RESPONSE	0%
BRIGHTNESS	<b>45</b> %
STEREO LINK	100%
AUTOGAIN	OFF
DRY/WET	100%

#### 4.5.1 Controls

The heart of the compressor is what's known as a T4B optoisolator. The manufacture of these was not precise, and hence attack and release times vary dramatically between units. Using the **Attack** and **Release** times will allow you to replicate the behaviour of any hardware unit. Red markers highlight the approximate range to be expected from a grey frontpanel unit. Silver frontpanels have much shorter times while the earliest units have much longer times.

Some later versions of the hardware added a **Ratio** switch, which allows toggling between "Comp" and "Limit". The hardware manual describes these as being ratios of 3:1 and  $\infty$ :1, however, in usage the difference between the two is subtle.

It's common to modify the hardware to move the **Response** control to the front panel. This acts very approximately like a high-pass filter on the sidechain signal. At 0% the response is more sensitive to low frequencies, and at 100% is less sensitive.

The **Makeup** gain has a range of 40dB and can create significant distortion when driven hard, particularly when there is little compression. The **Brightness** control adjusts the makeup stage corresponding to an adjustable component in the circuit. Typically lower values give a "darker" sound, and higher values are "brighter". Since it is part of a high-gain feedback amplifier, you may see low-level DC content whilst it is being adjusted.

#### 4.5.2 About

It's 1965 and your radio station has reception problems. You ask around the industry and learn that to get the best bang-for-your-buck from your transmitter, you need something called a "limiter". In the capital, the big station has a Fairchild unit which cost more than your entire studio. You could buy a cheaper model, but in this case, cheap means noisy, and that's already the problem. An advert catches your eye for a limiter with great noise performance based on something called an optoisolator, and it's a done deal. Some say it's even more transparent than the Fairchild. Set up just right it'll fade out the music when the DJ talks and fade it back in afterwards. Some years later you've upgraded and sell the limiter to a local studio owner who figures he can use it to even out vocal takes. You upgraded because the old limiter distorted sometimes, and technology has improved now; but distortion was better than noise or an astronomical pricetag!

Eventually, people are used to the distortion of the unit, and its slow behaviour, and it becomes the quick way to get a full-sounding rock vocal or bass part. There was a brief time when the front panels were silver and they reacted really fast, which was interesting on drums; those units are rare but well-loved.

The dynamic behaviour is very imprecise; the sidechain signal distorts heavily, preventing accurate compression. Even if it had been precise, the optoisolator response is hugely nonlinear, so it wouldn't have helped. Turning the gain up too far made the thing distort like crazy. But the effect it

has on sound is deeply ingrained into the listener's ear, giving it a heritage that lasts to the present.

## 4.6 76A

MODEL	76A
RATIO	4:1
ATTACK	
RELEASE 20	00.00ms
Q BIAS	0.00%
STEREO LINK	100%
AUTOGAIN	OFF
DRY/WET	100%

#### 4.6.1 Controls

As 76D. Note the different Attack range.

#### 4.6.2 About

See 76D. Stop after the "painting a blue stripe" bit, where it says: *It's very impressive, but it's also very noisy and distorts.* It really bites the signal.

Some people say it's a magic weapon for making vocals bite. Some say it's obligatory on a drum buss in parallel.



## 4.7 160

MODEL160RATIO4.00:1VCA2181STEREO LINK100%AUTOGAINOFFDRY/WET100%		
VCA2181STEREO LINK100%AUTOGAINOFF	MODEL	160
STEREO LINK 100% AUTOGAIN OFF		
AUTOGAIN OFF	VCA	2181
	STEREO LINK	100%
DRY/WET 100%	AUTOGAIN	OFF
	DRY/WET	100%

#### 4.7.1 Controls

This unit is totally signal-dependent, so there's no attack or release controls. There's a regular **Ratio**.

The original unit used a 200-type VCA, which was an early ancestor of the modern THAT chips that make everything work. So you can use **VCA** to pick a modern 2181 VCA, or the old 200 unit. You may find the newer chips preferable!

#### 4.7.2 About

This is a really important unit historically, but before that - this is for drums. In a bus or individually.

So, on paper, this is the first compressor with RMS detector and VCA. And there's certainly an early VCA in the unit. But this RMS detector comes from just before dbx RMS detectors were a real thing. So it's... just a very strange circuit. It's an auto-attack auto-release completely signal sensitive weird envelope-follower type arrangement. The manual describes it as an RMS detector, however. But it's what you push kick and snare through to make them present and biting.

## 4.8 Zener

	MODEL	Zener
	RATIO	THD
	ATTACK	3.15ms
	RELEASE 20	
	AUTORELEASE	OFF
	HOLD	0%
(A	HPF	OFF
	CALIBRATE	0.00%
	STEREO LINK	100%
	AUTOGAIN	OFF
	DRY/WET	100%

#### 4.8.1 Controls

There are three **Ratio** settings: THD (no compression, just distortion), Comp and Limit. Roughly speaking, Limit is higher ratio than Comp.

The original unit had **Hold** but no **Autorelease** although various recreations over the years have added various options here. **Hold** essentially configures the minimum GR the unit can apply. **Autorelease** adds a conventional autorelease stage into the circuit. We believe that TrackComp contains the first working implementation where Hold and Autorelease circuits interact correctly.

**Calibrate** allows you to trim the calibration of the GR signal; this is most audible in THD mode where it will change the character of the distortion. In other modes, it additionally trims the threshold and ratio.

#### 4.8.2 About

In my exploring of vintage units, this is the one I've found which has actual magic. I'm deeply relieved that the magic transfers to the digital domain perfectly!

This is an old EMI unit from Abbey Road, used for the Beatles and the like. Circuit-wise, it's comparably similar to something like a 33609 (diode bridge, feedback). But they couldn't sound any more different. While the 33609 is clean and polite, the Zener was raised by wolves on drugs, and has no time for any of that. You **can** tame this unit, if you take the time, and you really think it's the right thing to do. I say let it live wild. As it stands it smashes things up in a way unlike anything



else around.

Supposedly Comp was designed to emulate the Altec 436, and Limit to emulate the Fairchild 660. To my ears they're nothing alike, but perhaps that's because I want to drive this thing into the red as a matter of course.

There's an American company who build a much-loved reissue of this unit, but my introduction to it was from Thomas Fripon of TTx Sound, whose painstaking work to accurately rebuild the original directly leads to me being able to bring this to you. Thank-you Thomas!

#### 4.9 2k5

MODEL	2k5
RATIO	4.00:1
ATTACK	3.15ms
RELEASE	
KNEE	Hard
FEED	Forward
RESPONSE	0%
STEREO LINK	100%
LINK SHAPE	Flat
AUTOGAIN	OFF
DRY/WET	100%

#### 4.9.1 Controls

Standard controls for Ratio, Attack and Release. Knee comes in three degrees of hardness.

Interestingly the topology can be configured as either new-style feedforward or old-style feedback, using the **Feed** control.

There's a high-shelf on the sidechain input which can be variably adjusted using the **Response** setting. 0% gives a flat shelf, 50% is the medium, and 100% is the maximum setting.

This unit also offers its own auto-gain, available with Autogain set to Compute.

For extra nerdy stereo linkage options, you can tweak the **Link Shape** which is a filter on the gain reduction signal.

#### 4.9.2 About

I'm told that this is the most commercially successful rack-mount stereo buss compressor of all time.

THAT corp RMS detector and VCA. Discrete opamps wired up so as to be inaudible.

American counterpart to the G-Bus.

## 5 Main Controls

## 5.1 Controls

#### Callipers

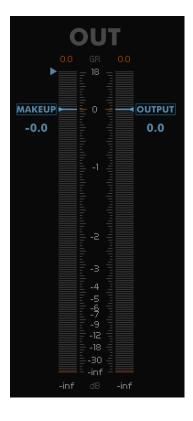
		IN		
		- 18 -		
		14		
		10		
INPUT		0		HRESH
0.0		-6		0.0
		12 -		
		20 .		
		-28		
		-53		
		-73		
		-107 : -		
	-inf	-inf dB	- 🚃	

Callipers are calibrated vertical sliders which allow you to precisely set values for a plugin. They are positioned over a PPM meter to allow you to set a level relative to the signal which it relates to.

The current value is displayed in a text field to one side of the indicator line. This can be double-clicked or dragged to alter the value.

You can shift-drag to fine-adjust a calliper, adjust using the mousewheel, or double-click to open the text-entry box.





Some Callipers have a small triangle at the top-left. This indicates that they can be zoomed for precision work. Clicking the triangle alters the scale to zoom in on the region of interest. Functionality continues to work exactly as before, albeit allowing more precision over the range shown.

#### Sliders



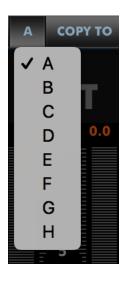
Sliders are used for adjusting the most important settings. They can be dragged to adjust, or shift-dragged for fine-adjust. Double-clicking will jump the slider position to wherever you click. Sliders can be adjusted using the mousewheel.

#### **Text Values**

Text values are rendered in blue, and followed by a unit in darker blue. They can be adjusted by dragging with the mouse or shift-dragged for fine-adjust. When double-clicked, you will be able to enter text. Press enter to confirm the new value. Text values can be adjusted using the mousewheel.

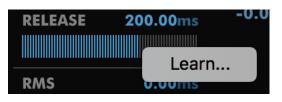


#### **Dropdown Menus**



Clicking a Dropdown Menu allows you to select from a discrete list of options. You can cycle through options using the mousewheel.

#### **MIDI Learn**



You can right-click (or Ctrl+Click on mac) any control to open the MIDI Learn menu. Selecting "Learn..." will wait for MIDI CC input and bind the control to the first MIDI CC controller received. Parameters are displayed in green to indicate that they have been MIDI Learned. MIDI Learn mappings affect all instances of a plugin and are saved globally, making it easy to map the plugins to your MIDI Controller. Right/Ctrl-clicking a Learned parameter displays a menu with information about the mapping and an "Unlearn" option to forget the MIDI mapping.

#### Sidechain EQ

Some models offer a filter which can be applied to the sidechain, in order to configure compressor response to ignore parts of the spectrum. Most often, this is used to filter bass, so that a compressor does not overreact to kick drums in a mix.

#### S/C HPF 103Hz S/C LPF 1.1kHz

Clicking the "S/C HPF" or "S/C LPF" text will toggle between a High-pass filter and a Low-pass filter.

4	OFF	To the left of the sidechain EQ section is the "listen" icon. When set to "off", you will always hear the compressed output signal.
₹A	Αυτο	When set to "auto", you'll hear the filtered signal whilst adjusting the filter frequency, and the compressed signal the rest of the time.
<b>1</b>	ON	When set to "on", you'll hear the filtered signal until you toggle the icon state again (this can be useful for verifying an external sidechain signal).

AUDIO TOOLS CRAFTED WITH LOVE

## 6 Other UI

#### 6.1 The Menu Bar



Each plugin has a menu bar at the top of the plugin UI, which may contain plugin-specific controls described in that plugin's section. In this section we describe the common menu bar controls.

#### 6.1.1 DMGAudio Logo

Clicking the DMGAudio logo opens up the "About" page below:

DMG AUDIO TRACKCOMP <			>	x1	Α	СОРҮ ТО	INT	Ċ
TrackComp 2.00 UX and UI by Krzysztof Oktals	<b>COMP</b> ki.							
Code and Love by Dave Gamb	le. MODEL							
It is indeed a surprising and f	ortunate fact	that nature	e cai	n be				
expressed by relatively low-or	der mathem	atical functi	ions	•				
- Carnap 0 THRESH								
Registered to: Dave Gamble (	dave@dmga	udio.com)						
-20	RMS							

On this page you can see the current version number, credits, and your license registration information. If you don't have a license installed, or your demo has expired, that information will be displayed here.

#### 6.1.2 Oversampling

TrackComp offers global oversampling up to 16x, plus the option to use a different oversampling setting for render.

A lot of work has gone in to making it almost impossible to hear a difference between 1x and anything higher, so I hope this proves useless and you can save the CPU!

#### 6.1.3 A/B and Copy To

The A/B menu allows you to create 8 different versions of your settings, and quickly toggle between them. Clicking the A/B icon will open a dropdown menu allowing you to pick the bank of settings to work on. Right/ctrl-clicking the A/B icon will cycle between the banks you have visited since opening the plugin window. The Copy To menu allows you to copy the current settings to another bank, so that you can use them as a starting point for further adjustment. Settings in all A/B banks, and the currently selected A/B bank, are saved and recalled with presets.

#### 6.1.4 External sidechain selection

You can select an external signal to drive compression which will be applied to the main audio input. A common example of this is to route a kick drum to the external sidechain in order to create periodic, rhythmic compression, which will cause incoming audio to appear to "pump" out of the way of the kick drum. Similarly, compressing a bass part against the kick drum can create clarity in a mix where the arrangement causes phase issues between kick and bass.

Clicking this icon will open a dropdown to select between Internal (main audio input) and External (audio routed in to the sidechain using your DAW) as triggers for the compression. For the specifics of how to route audio to a plugin sidechain, please refer to your DAW's documentation.

#### 6.1.5 Bypass

The Bypass button bypasses all processing within the plugin and routes the input directly to the output.

#### 6.2 Presets



Each Track Plugin includes a set of presets, which you can add to, to build up your library of settings.

By default, on OS X they reside at /Library/Application Support/DMGAudio/TrackComp/Presets/ and on Windows, at C:\Users\<you>\Documents and Settings\DMGAudio\TrackComp\Presets\.

You can change the location of the presets on Windows by re-running the installer and changing the "DMGAudio TrackComp resources folder" path during the install.

Saving presets into these folders will allow you to select them from the Preset menu.

Don't forget to include these files in your backups.

#### 6.2.1 Previous / Next

These buttons allow you to quickly jump back and forward within the list of presets. They grey out to show you when there are no further presets available for selection.

#### 6.2.2 Preset Menu / Name

This shows the Preset name which can be modified with a right-click. Clicking here will open the Preset Menu, which is a multi-level menu of all of the presets you currently have saved. You can arrange this folder to suit your needs, but be aware that installing updates will reinstall the factory set.

Default
Save Preset
Load Preset Save as Default Reset to Default

Selecting "Save Preset..." will allow you to save your current settings as a preset. By default this will save into the presets folder, so that the preset will appear on the menu.

Selecting "Load Preset..." will open a file browser to allow you to load a preset from anywhere on your system.

Selecting "Save as Default" will store your current settings as the default settings for new instances, or to be used when selecting "Load as Default".

Selecting "Load as Default" will restore the settings of this instance to the last saved default settings, or to factory settings if you haven't saved your own default.

## 6.3 Resize

Dragging the bottom-right of the plugin allows you to freely resize the plugin UI.

## 7 Troubleshooting

## 7.1 Get in touch

If you run into trouble, get in touch! We're here to help, after all!

For technical support, feature requests and general discussion, visit: https://dmgaudio.com/support.php

Or you can just email us directly at: contact@dmgaudio.com

For support with DMGAudio software, sending email is the way to go. It allows us to be much faster and more responsive, and we try to spend more time answering our emails than hanging out on social media!

For general discussion though, please feel free to drop by on Facebook/Twitter and tell us how you're getting on. We'll be posting news about updates there too - but also do join the DMGAudio mailing list to make sure you never miss out.

- f https://facebook.com/dmgaudio
- https://twitter.com/dmgaudio
- https://www.youtube.com/c/dmgaudioofficial

Questions about licensing, license transfers and discounts are covered in our FAQ.

Information about version numbers, updates, features and bug fixes is listed under the Specifications tab on the TrackComp Product Page.

TrackComp Manual version 2.00 © DMGAudio 2017