TripleComp version 1.5 shareware

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Before you use TripleComp please read the following :

1. TripleComp features

TripleComp is an advanced and easy to use three band compressor/limiter plugin designed to boost
the overall loudness of your music in a very comfortable way. It is mainly intended for "inaudible"
compression at the mastering stage, not for sound design.
It can be used within VST host applications like Cubase VST, WaveLab, Nuendo, OrionPro, Ableton
Live, n-Track, PowerTracks Pro and many others.

TripleComp splits up your audio signal into high, mid and low frequency bands. These bands are
processed individually by three independent compressors, which you can see on the left of the user
interface. Each compressor has an own wave display and reduction meter.
In the Master section the three compressed signals are mixed together again. Then the overall signal
can be limited by using the brickwall limiter of this section.

TripleComp's compression/limiting algorithms react to peaks, not to the energy (RMS) of the signal.
That's why you hear no pumping or coloration effects.
Note that there exist no faders for setting attack or release times. These values are calculated auto-
matically and depend on the characteristic of the input signal, the amount of compression, the attack
enhancement mode and several other factors. TripleComp's intelligent look ahead processing avoids
distortion artefacts even under heavy compression.

The dynamic resolution of TripleComp's audio processing is 32 bits, which is more than 180 dB.
The plugin is suitable for sampling rates up to 96 kHz.

2. Why using multiband compression instead of singleband compression ?

… the answer is quite simple, for better spectral balance.
A single band compressor regulates the overall signal, that is all frequencies equally.
When the basedrum kicks in, everything else in the mix is compressed with it. So the highs and mids
go down, although they actually didn't need to be regulated.
With multiband compression you get better spectral continuity because different parts of the audio
spectrum don't affect each other.

3. TripleComp installation

Simply copy the TripleComp.dll into your Vstplugins directory.

Note: If you are running a 64 bit VST host application you can use the TripleComp x64 version.

4. TripleComp controls

ON buttons

The ON buttons activate the compressor units High, Mid and Low. Alternatively you can click on the labels *High*, *Mid* and *Low* in the Master section.

BYP buttons

The BYP buttons let you bypass single compressor units, which means switching between compression on and compression off in the different frequency bands.

ATK buttons

The ATK buttons activate the attack enhancement mode separately for each compressor unit.
In medium to strong compression situations this function emphasizes tone attacks which makes your mix sounding more transparently and punchy.
For group or solo activation of these buttons see the "Hints" section below.

Threshold faders

The threshold faders set the levels, at which the different dynamic processors start working (compressors: -36 to -6 dB / limiter: –24 to 0 dB).

Ratio faders

The ratio faders set the amount of compression as a ratio (1:1 to 20:1).
The ratio is applied to any audio which exceeds the threshold.

Reduction level displays

The reduction level displays show the amount of reduction applied to the audio signal. These meters should normally reach no more than 6dB. The maximum possible compression depends on your audio material.

WaveDisplays

The WaveDisplays show input and compressed signals, each with a different color.
The horizontal lines indicate the respective threshold level.
The small fader on the right of a WaveDisplay zoomes the view vertically and doesn't affect audio.

Colors, zoom range and display speed can be changed in the right-click contextmenu.
I recommend to lower the Display speed on slow computers because the WaveDisplays make quite intensive use of CPU and GDI resources.

Mixer faders

The mixer faders let you adjust the output levels of the three compressor units Low, Mid and High (+/- 12 dB). Click on the label *Mix* for Mixer reset.

Output fader

The output fader sets the output amplification (0 to 24 dB).

Output level display

The VU meters on the right of the user interface show the exact output levels. Any red color indicates that your signal exceeds 0 dB or clips respectively.

RMS Display

Here you can observe the average energy (loudness) of the output signal. The bigger RMS value of left/right channel is displayed. You can use this feature f.e. to compare the loudness of different songs.

LookAhead switch

TripleComp provides an intelligent look ahead algorithm to minimize distortion artefacts.
If activated a look ahead time of 20 ms is introduced as a latency in the signal path.
Note that the latency can be automatically compensated if your host application supports that.

Auto Normalize switch

The Auto normalize feature automatically brings peak levels up to the Auto Normalize limit, which can be set in the contextmenu (0 / -0.01 / -0.05 / -0.09 dBFS). You can be sure that there will be absolutely no clipping. This makes normalizing sound files with an off-line editor unnecessary.
The different limits can be useful, if your music application reports clipping for signals,
which are near to 0 dB. Furthermore some DA converters can get in trouble with 0 dB peaks.
For mixdown turn this switch off.

16 bit Dither switch

If activated, the output of TripleComp will be dithered and computed (not truncated) to 16 bit CD Resolution. Dithering adds a white noise signal below the 16th bit (lsb) to the 32 bit signal of your audio application. Because of that the portion of the signal below 16 bit modulates the 16th bit and becomes audible. This increases the dynamic range of your resulting 16 bit audio signal to more than 100 dB !
When you use dithering, TripleComp must be the very last effect in the chain.
Don't apply any further processing to a 16 bit wave file which has already been dithered.

Bypass switch

Bypasses the PlugIns signal path in order to compare original and processed signal.

Hints :

- After activating "Auto Normalize" there may occur huge dynamic jumps while TripleComp is seeking for the highest peak in your audio signal - so take care of your ears !
- In Auto Normalize mode the limiter threshold is linked to the output gain, which simplifies the search for the right setting
- Click on a parameter display for direct numeric input
- Click above or below a fader handle for fader fine tuning
- Click on the meters to reset VU peak memory
- Switch all ON / BYP / ATK buttons at once by pressing the Ctrl key while clicking on one
- Achieve a complementary switch by pressing the Shift key while clicking on ON / BYP / ATK
- Use the options available in the context menu
- Note that settings you do using the context menu are global for all TripleComps and stored in the Windows registry database (KEY_CURRENT_USER\Software\SinusPlugIns\TripleComp)
- Don't overcompress your mix, let your music breathe !

5. How to use TripleComp ?

Well, a good starting point is to zoom the different WaveDisplays so that the input waveforms fit in.
Set the limiter threshold to 0 dB and turn off the Mid and Low compressor. Now you can adjust the
High compressors threshold and ratio (f.e. -12 dB , 2.5:1). You should experiment on that.
Do the same steps also for the Mid and Low compressor.
Now level out the three compressed signals in the mixer of the Master section.
After that you may switch on Auto Normalize and lower the limiter threshold level to about 1 or 2 dB
below the highest peaks of the compressed signal. Now switch Auto Normalize off and choose
"Create file" or "Export Audio" in your music application.

6. How to register ?

In unregistered state TripleComp pops up every now and then a message box to remind you that the
plugin is shareware.
For registration please note down your personal **PlugIn ID** which can be found in the info window.
Then go to http://www.sinusweb.de/download.html and click on "Register online". After successful
registration you will be sent a registration key which can be entered in the "**Registration Key**" field.
Once you have done that the nag screen will disappear forever !

That's it.

I want to thank everybody who supports SinusWeb developments by registering the plugin.

I hope you enjoy using this plugin in your audio production as well as I do.
If you have further questions concerning usage or registration don't hesitate to contact me.

Email: mailto:plugins@sinusweb.de

Web: http://www.sinusweb.de/