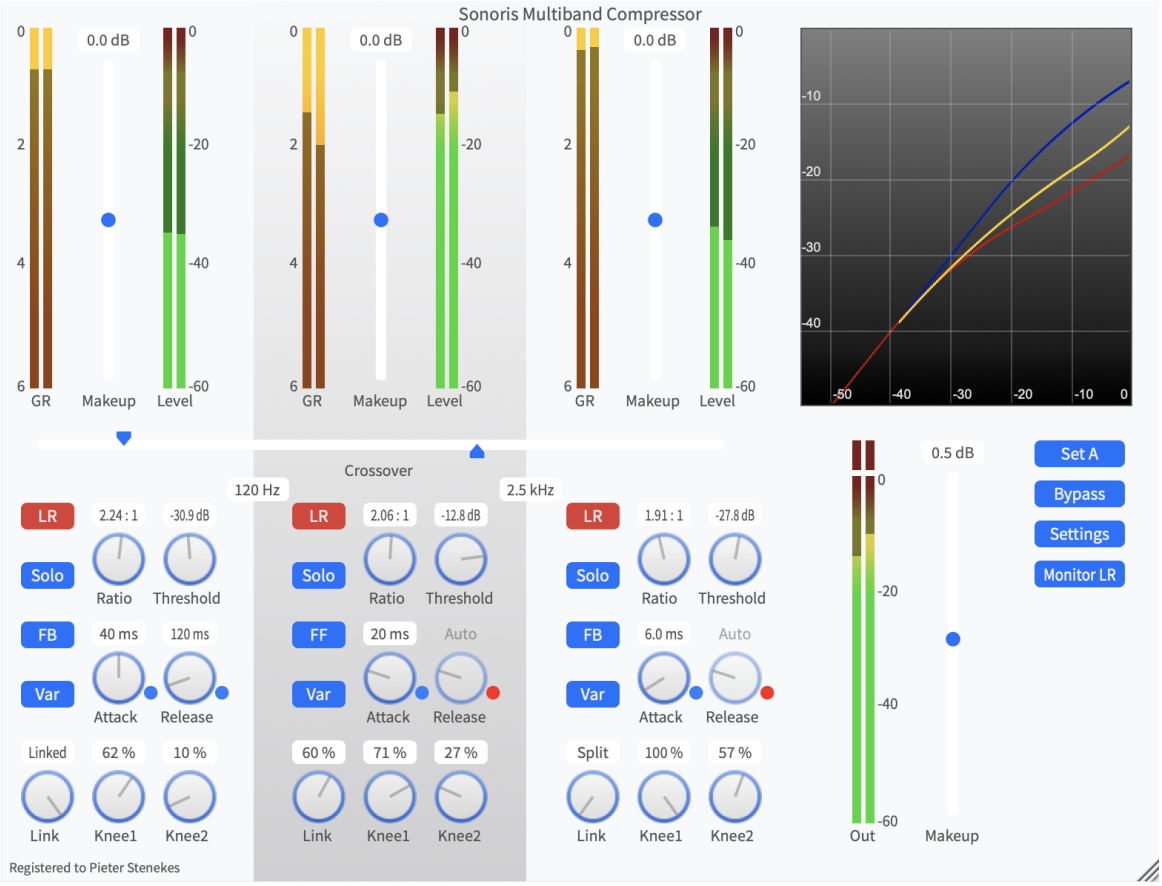
SONORIS
PROFESSIONAL MASTERING SOFTWARE

Sonoris Multiband Compressor 1.2

User Manual



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Introduction

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Thank you for choosing Sonoris Multiband Compressor!

What is it?

The Sonoris Multiband Compressor (= SMBC) is a versatile multiband compressor in VST, VST3, AU and AAX format for Windows and Mac. It is an ultra clean compressor suitable for delicate material. It has three independent frequency bands followed by three compressors based on the Sonoris Mastering Compressor. The three bands are created with special designed filters to avoid phase cancellation problems. These filters are known as Linkwitz-Riley crossover filters and have a very natural, analog like quality. By design they mix back flat and are efficient in use. The crossover filter can also work in linear phase mode. In this mode there is no coloration and the wave shape is preserved as much as possible at the expense of a small delay.

No odd harmonic distortion that can be found in most compressors is present in the SMBC. To reduce residual artifacts the SMBC features upsampling of the audio up to 8 times. Transparency can be further enhanced by selecting auto-release and feedback detection together with two soft knees. The individual bands can also set to limiting, what results in a multiband limiter.

If a more aggressive behavior is needed you can for example choose feedforward detection with a harder knee. It can have some “character” if pushed.

Besides working on a full mix, the SMBC bands can also work on the individual L, R, Mid or Side channels or anything in between, with the variable link.

About the plugin

Much effort has been put in maintaining the sound quality. All calculations are performed with 64 bit resolution internally.

Basic Operation

All controls can be controlled with the mouse by dragging or clicking. To increase the resolution press the control key while dragging. To simultaneously change the settings for all bands, hold the shift key while dragging. The knobs have a reset function that allows for a quick reset to the default value by double clicking on it. An added feature is the possibility to adjust the knobs with the mousewheel. Clicking on a value field enables the direct entry of a value.

Activation

Details on how to activate the plugin can be found here:

https://www.sonorissoftware.com/activation/

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Features

- ✓ Ultra clean three band compressor
- ✓ Selectable phase correct Linkwitz-Riley or linear phase crossover filters
- ✓ Ratio ranging from 1:1 to infinity for compression and limiting
- ✓ Attack ranging from instantaneously (0 usec.) to 1 sec
- ✓ Selectable auto-attack
- ✓ Release ranging from 1 msec to 5 sec
- ✓ Selectable auto-release ranging from 0.5 sec. to 5 sec. program dependent
- ✓ Threshold ranging from –60 dBfs to 0 dBfs
- ✓ Very flexible knee setting from hard to soft in 100 steps
- ✓ A second knee that enables the compressor to adjust the ratio back to 1:1 above the threshold, also adjustable in 100 steps from hard to soft knee
- ✓ Feedback and feedforward detector types
- ✓ 2 processing modes:
    - Variable Link: sidechain linking is adjustable from fully linked to fully split
    - Highest Link: sidechains linked with the highest value of the left and right channel
- ✓ Compression on stereo, L, R, Mid or Side channels
- ✓ Band solo modes
- ✓ Monitoring selectable between stereo, L, R, Mid or Side channels
- ✓ Make up gain ranging from – 18 dB to + 18 dB
- ✓ 2x, 4x, 8x or auto upsampling for even less artifacts
- ✓ A/B comparison
- ✓ Scalable user interface
- ✓ Gain transfer plot
- ✓ High resolution gain reduction meters
- ✓ High resolution level meters with resettable peak indicator.
- ✓ Full automation possible
- ✓ Mousewheel support
- ✓ Settings can be saved and loaded
- ✓ Double precision internal resolution and interfacing with compatible DAWs
- ✓ Windows 32/64 bit VST, VST3 and AAX versions
- ✓ Mac OS 64 bit Intel / Apple Silicon VST, VST3, AU and AAX versions
- ✓ Installer / uninstaller

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Crossover

These two text boxes and the slider select the crossover frequencies between the three bands. The shown values are the frequencies that splits two bands apart. The phase correct Linkwitz-Riley crossover filters guarantee there are no phase cancellation problems around the crossover frequencies. In the Settings menu the filter response can be changed to linear phase too.

This setting is automatable.

Solo

These buttons put a band in solo mode. When selected, only the chosen band is active. This enables you to adjust the settings of an individual band.

This setting is automatable.

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Enable

This switch toggles the low band compressor on or off. Right clicking opens the band mode menu. In this menu you can select between stereo, left, right, mid or side channel compression.

This setting is automatable.

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Style

The style button largely controls the character of the compressor. In feedback mode the sidechain signal is coming from the compressor output. This means that the sidechain is following the compressed signal and this results in a smoother overall behavior. You will find that it is easier to set the threshold. In this mode there is also a two stage release. The first stage is always between 40 – 80 msec, as a result of the compression level. The second stage is set by the release value.
In feedforward mode the sidechain signal is coming from the compressor input. This results in a more aggressive behavior.

This setting is automatable.

Mode

The mode button opens the menu where the processing mode can be set.

- Variable Link: sidechain linking is adjustable from fully linked to fully split, while sharing the controls for the left and right channel
- Highest Link: sidechains are linked and fed with the highest value of the left and right channel, while sharing the controls for the left and right channel

This setting is automatable.

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Link

The link knob controls the ratio of sidechain linking in Variable Link mode from fully split to fully linked and anything in between.

This setting is automatable.

Ratio

The ratio knob controls how much gain reduction will be applied if the signal exceeds the threshold. For example, with a ratio of 2:1 the output increases 1 dB for every 2 dB at the input. The maximum ratio is "Inf" and this sets the compressor in limiter mode. For serious limiting select 0 usec. for the attack and the processing mode to “Highest Link”. Set the style to “feedback”.

This setting is automatable.

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Threshold

The threshold knob controls the sidechain level above which the compressor starts reducing gain. The threshold value ranges from -60dBfs to 0 dBfs.

This setting is automatable.

Attack

The attack knob controls how fast the compressor reacts if the sidechain signal exceeds the threshold. The attack value ranges from instantaneously (0 usec.) to 1 sec.

The auto attack button makes the attack time program dependent. This means that the attack time is reduced if gain reduction has occurred in the last 20 secs approximately. The auto attack value centers around 10 msecs.

This setting is automatable.

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Release

The release knob controls how fast the compressor restores if the sidechain signal has gone below the threshold. The release value ranges from 20 msec. to 5 sec.

The auto release button makes the release time program dependent. This means that the release time is reduced on short peaks. If the gain reduction is high and/or lasted long, the release time is increased. This is similar to how our ears work, so maximum transparency can be achieved in this mode. The auto release time ranges from 500 msec. to 5 sec.

This setting is automatable.

Knee 1

The knee 1 knob controls the shape of the first knee in the compression curve. If set to "Off" the transition between the non-compressed and the compressed area will be abrupt. This is a hard knee. If set to a larger value, up to 100%, the transition will be smoother, towards a soft knee. This way, the ratio will change less abrupt and this results in a less noticeable compression.

This setting is automatable.

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Knee 2

The knee 2 knob controls the shape of the second knee in the compression curve If set to a value other than “Off” the ratio is restored towards 1:1 if the sound level increases above the threshold. If the level gets even higher, there will only be a gain shift and no more compression. This essentially limits the maximum gain reduction of the compressor.

This setting is automatable.

Makeup

The makeup sliders control the output gain of the compressor to make up for the gain reduction. The makeup value ranges from –18 dB to +18 dB.

This setting is automatable.

Set A/B

The set A/B button switches between settings A and B for comparison. All adjustments are automatically saved to the current set. Copying from one set to another is possible by pressing the Control key and the set A/B key at the same time.

This setting is automatable.

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Bypass

The bypass button switches bypass on or off. The bypass is a soft bypass, disabling the plugin, the volume stage and the monitor setting.

This setting is automatable.

Monitor

The monitor button controls what signal will be heard, stereo, left, right, mid or side.
This setting is automatable.

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Metering

The level meters show the peak level of the output signal.

The clip indicator lights up if the output signal exceeds the maximum level. You can reset this indicator by clicking on it.

The gain reduction meters show the amount of gain reduction. Clicking on it will toggle the scale maximum between 6, 12 and 18 dB.

The gain transfer display shows the transfer curve of the compressor. You can see the effect of the ratio, threshold and knees.

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Settings

In the settings menu are these choices:

- Load. This function allows you to recall previous settings stored in a file
- Save. This function allows you to save the current settings to a file
- Upsampling: Selects upsampling: Off, 2x, 4x, 8x or Auto. In Auto mode the upsampling factor is chosen for the best quality with the current sample frequency.
- Linear Phase: Select between minimum phase (Linkwitz-Riley) and linear phase crossover filters
- Save as Default: Saves the Mode and Upsampling settings as default
- Help: Shows this helpfile
- About: Shows the about box with registration info.
- Show tooltips: toggles tooltips on or off
- Deactivate: Deactivates the license on an offline computer

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