MAutoVolume

MAutoVolume is a solution to a common problem - stabilizing loudness of a front instrument, such as a vocal, a bass or a saxophone. Although you can use a compressor for this, setting it up may be very time consuming and the results questionable. You can also manually automate the volume fader, which is the method most engineers used so far, and it is not exactly ideal as well. MAutoVolume solves this problem quickly, easily and with astonishing results.

In most cases all you need to do is to put MAutoVolume as an insert onto the particular track, preferably as the last item in the chain. Then you can use Output gain to adjust the desired output level, or you can use the mixer fader in your host, the functionality would be the same.

Adjusting MAutoVolume for your audio material

In order to get the best results, you may want to experiment with the parameters that the plugin provides. First there is Input gain, which you can use to compensate if your track is too silent or too loud. Watch the peak meters at the right of the plugin (click on the meters button if you do not see them), especially the **G** (Gain) meter, which shows the range of applied gain. Ideally this should vary around 0dB, if not, you should use the input gain to compensate. The reason is, that the gain the plugin applies is limited by Range parameter, for your own safety. If your track is very low level for example, the default limit of 24dB may not be enough, hence the plugin won't work so well, and silent parts won't be compensated enough.

Sensitivity is the most important parameter, which says, how much should the plugin compensate the volume. Despite 100% makes the loudness maximally stable, the effect may be too strong, unnatural, and such loss of dynamics may not actually be desired. In other words, sometimes it's better if the loudness isn't too stable.

Look-ahead parameter may be useful to provide better dynamic response, to remove potential pumping artifacts for example. Speed parameter controls how quickly the plugin reacts to changes in loudness. You can experiment with both of these parameters to get the most natural results.

Finally Noise floor controls the input level at which the track is considered silent. When the performance ends, the plugin stops applying the positive gain, because there's no relevant signal anymore, probably just noise, and it would need to apply a very high gain.

Using side-chain to keep a track "on top"

Most songs don't have constant dynamics. Choruses are louder than verses for example. Your major tracks, vocals usually, should adjust to that. You can use MAutoVolume to stabilize the volume of these tracks, fix the fluctuations, and then manually automate the volume to ensure particular track isn't too loud in verses or silent in choruses. But there's an easier automatic solution.

To do this, create a mix bus, which will contain all of the tracks in the mix, except for the vocal for example. Route output of this track to the

master output and also send it to MAutoVolume's side-chain input. Then enable the Side-chain panel in MAutoVolume. From this moment the plugin will estimate loudness of your track as well as loudness of the background, the mix. As a result the vocal level won't be stabilized to some constant predefined level, but according to the level of the mix, so with properly setup Output gain you can make the vocal track always "on top" of the mix without any automation.

Several songs also have multiple front tracks - e.g. besides the vocals, there may be a guitar solo and a saxophone solo. It is perfectly safe to send output of your mix bus into multiple MAutoVolume instances' side-chains. This method usually works well even if multiple of these instruments are temporarily playing together.

⠿ Presets

Presets

Presets button shows a window with all available presets. A preset can be loaded from the preset window by double-clicking on it, selecting via the buttons or by using your keyboard. You can also manage the directory structure, store new presets, replace existing ones etc. Presets are global, so a preset saved from one project, can easily be used in another. The arrow buttons next to the preset button can be used to switch between presets easily.

Holding **Ctrl** while pressing the button loads a random preset. There must be some presets for this feature to work of course.

Presets can be backed up by 3 different methods:
A) Using "Backup" and "Restore" buttons in each preset window, which produces a single archive of all presets on the computer.
B) Using "Export/Import" buttons, which export a single folder of presets for one plugin.
C) By saving the actual preset files, which are found in the following directories (not recommended):
Windows: C:\Users\{username}\AppData\Roaming\MeldaProduction
Mac OS X: /Library/Application support/MeldaProduction

Files are named based on the name of the plugin like this: "{pluginname}.presets", so for example MAutopan.presets or MDynamics.presets. If the directory cannot be found on your computer for some reason, you can just search for the particular file.

Please note that prior to version 16 a different format was used and the naming was "{pluginname}presets.xml". *The plugin also supports an online preset exchange. If the computer is connected to the internet, the plugin connects to our server once a week, submits your presets and downloads new ones if available. This feature is manually maintained in order to remove generally unusable presets, so it may take some time before any submitted presets become available. This feature relies on each user so we strongly advise that any submitted presets be named and organised in the same way as the factory presets, otherwise they will be removed.*

◀ Left arrow
Left arrow button loads the previous preset.

▶ Right arrow
Right arrow button loads the next preset.

⚄ Randomize
Randomize button loads a random preset.

⬡ Panic
Panic button resets the plugin state. You can use it to force the plugin to report latency to the host again and to avoid any audio problems. For example, some plugins, having a look-ahead feature, report the size of the look-ahead delay as latency, but it is inconvenient to do that every time the look-ahead changes as it usually causes the playback to stop. After you tweak the latency to the correct value, just click this button to sync the track in time with the others, minimizing phasing artifacts caused by the look-ahead delay mixing with undelayed audio signals in your host. It may also be necessary to restart playback in your host.
Another example is if some malfunctioning plugin generates extremely high values for the input of this plugin. A potential filter may start generating very high values as well and as a result the playback will stop. You can just click this button to reset the plugin and the playback will start again.

Settings   Settings
Settings button shows a menu with additional settings of the plugin. Here is a brief description of the separate items.

Licence manager lets you activate/deactivate the plugins and manage subscriptions. While you can simply drag & drop a licence file onto the plugin, in some cases there may be a faster way. For instance, you can enter your user account name and password and the plugin will do all the activating for you.

There are 4 groups of settings, each section has its own detailed help information: **GUI & Style** enables you to pick the GUI style for the plug-in and the main colours used for the background, the title bars of the windows and panels, the text and graphs area and the highlighting (used for enabled buttons, sliders, knobs etc).

Advanced settings configures several processing options for the plug-in.

Global system settings contains some settings for all MeldaProduction plugins. Once you change any of them, restart your DAW if needed, and it will affect all MeldaProduction plugins.

Dry/Wet affects determines, for Multiband plug-ins, which multiband parameters are affected by the Global dry/wet control.

Smart interpolation adjusts the interpolation algorithm used when changing parameter values; the higher the setting the higher the audio quality and the lower the chance of zippering noise, but more CPU will be used.

 WWW

WWW button shows a menu with additional information about the plugin. You can check for updates, get easy access to support, MeldaProduction web page, video tutorials, Facebook/Twitter/YouTube channels and more.

 Sleep indicator

Sleep indicator informs whether the plugin is currently active or in sleep mode. The plugin can automatically switch itself off to save CPU, when there is no input signal and the plugin knows it cannot produce any signal on its own and it generally makes sense. You can disable this in Settings / **Intelligent sleep on silence** both for individual instances and globally for all plugins on the system.
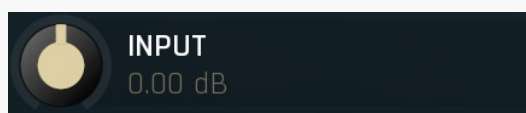
General panel
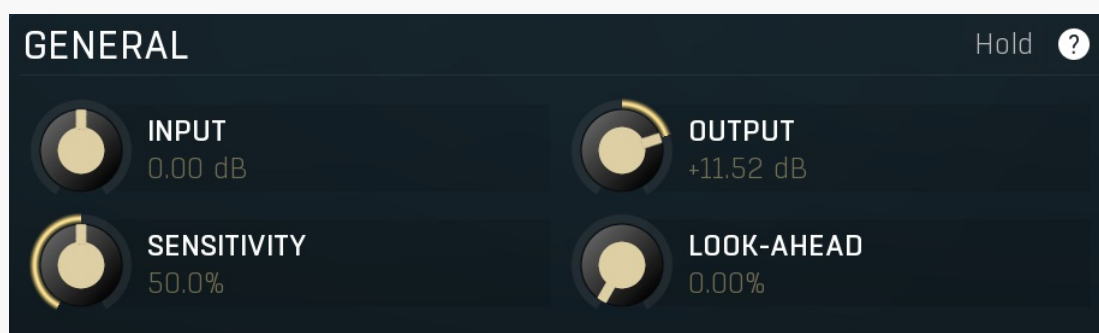
General panel contains the main parameters.

 Hold

Hold enables peak-hold feature, with the hold length equal to look-ahead size. This ensures the maximum level will be held through the look-ahead time. Since this detector is searching for maximum level, the plugin will tend to lower the gain, avoiding quick temporary increases in level.

 Input gain

Input gain defines the power modification applied to the input signal. Use this if the input signal is not loud enough or is too loud, so that the plugin has to apply too much gain dynamically.
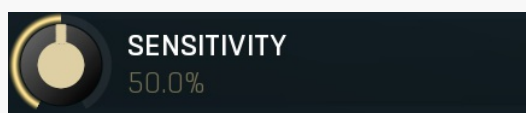Range: -24.00 dB to +24.00 dB, default 0.00 dB
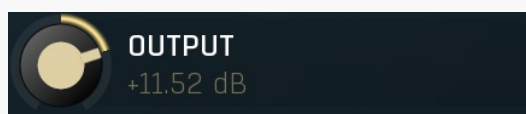
 Output gain

Output gain defines the power modification applied to the output signal. Since the plugin tries to stabilize the loudness of the input signal, this controls the output volume.
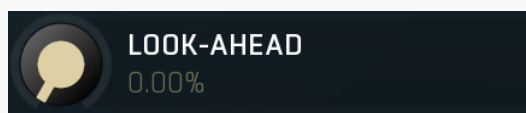Range: -24.00 dB to +24.00 dB, default 0.00 dB

 Sensitivity

Sensitivity controls how much of the effect is applied and can be thought of as dry/wet mix control.
Range: 0.00% to 100.0%, default 50.0%

 Look-ahead

Look-ahead delays the actual signal being processed, but keeps the detector signal intact. This makes the processor use a signal that has not actually arrived for dynamic calculation. This allows the processor to respond even faster, in fact, ahead of time. This feature is useful for mastering, however it naturally induces latency.
Look-ahead can be available in milliseconds (with obvious meaning) or in percentages. In percentages the look-ahead delay is computed automatically based on the attack and hold times. For example, if look-ahead is 100%, attack time 2ms and peak hold 10ms, then the look-ahead is 10ms; 60% look-ahead would be 7.2ms. If the look-ahead is simply an on/off switch, then it is toggling between 0% and

100% values.

Before using look-ahead, you should understand what such a feature does exactly as the results can potentially be damaging to your audio. Look-ahead basically moves the signal back in time, in other words its signal detector measures the input levels ahead of time. This means that when the detector is in the attack stage, the level is rising, the actual signal is not rising yet, but it will do so soon. However, the same applies to the release stage! When the detector moves to the release stage, the actual signal is not falling yet. This can lead to very strange artifacts (which can be used creatively of course).

The common way to fix this is to set the **release time** considerably higher than the **attack time**. In this way, the level will rise ahead of time in the attack stage, and same will happen for the release stage and the level will go down, however, since the level is falling slowly, the look-ahead will not be that relevant.

Another option is to use the **peak hold** feature. It is highly recommended to enable **true hold** in the advanced detector settings if available. Essentially this feature maximizes the input level over a certain period of time. *So for example, if you set look-ahead to 5ms and peak hold to 5ms as well, the actual signal will arrive 5ms later than the detector signal, however the peak hold feature will ensure that the detector holds the highest peaks for 5ms, so the attack stage will be ahead of time, but the release will not! You can consider it a form of latency compensation for the release stage.*

*Look-ahead is commonly used in **limiters** along with very low (often 0ms) attack times to avoid distortion. With 0ms attack time the limiter is immediately following the input and when the level gets above 0dB, it turns it down to 0dB, so the attack stage is effectively being clipped. To avoid distortion produced by this effect, you can increase look-ahead and peak hold to the same value, say 1ms. As a result the attack stage occurs before it actually occurs, so the distortion is still present, but in much lower levels and usually is masked by the forthcoming transient.*
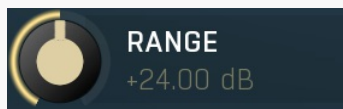In practice 50% seems to provide most natural results. Higher values are intended for special effects.
Range: 0.00% to 100.0%, default 0.00%

Advanced panel

Advanced panel contains some additional settings, which you will only need in a few cases, but they can optimize your workflow and provide potentially better results.

Range
Range controls how much gain the plugin apply. If you set this to 0dB, the plugin won't be able to do anything. If you set this to 3dB for example, the plugin will be able to apply gain of -3dB to +3dB. Then if the plugin needs to apply say +10dB in order to stabilize the volume, it won't be able to do that and only +3dB will be used. This is an alternative way to control how much of the effect can be applied, but using **Sensitivity** is the recommended method.
Range: 0.00 dB to +48.00 dB, default +24.00 dB

Speed
Speed controls how quickly can the gain change. If the speed is too low, the plugin may not be able to respond to all fluctuations. If the speed is too high, some distortion may occur.
Range: 0.00% to 100.0%, default 50.0%

Noise floor
Noise floor controls the input level considered to be only background noise. This is used to prevent the plugin from amplifying the noise when an actual signal is silent. If the noise level is too low, the plugin will consider the gaps between actual performance to be a useful signal and try to amplify it. If it is too high, the plugin will consider a low-level actual performance to be a noise and lower the gain for it. In most cases you don't need to set this too carefully as the difference between noise and useful signal is pretty high.

Range: -80.00 dB to 0.00 dB, default -40.00 dB

Noise gate	Disabled	Enabled	No attenuation

Noise gate

Noise gate controls the behaviour when the input signal is below the noise floor. By default, it is Enabled and when the volume is quickly going down it resembles an effect of a noise gate. This may be problematic in live situations, where the different singers may be taking turns, at quite different levels. When you set Disabled then and the level drops below the noise floor, no more changes will be performed and the gain being applied will stay the same until the signal rises above the noise floor again. No attenuation mode is something in-between - it lets the gain go down to 0dB, but not any lower. If the gain already is below 0dB, it stays intact to make sure the noise level will not go up.

Speed mode	Extreme	Fast	Medium	Slow	Ultra-slow

Speed mode

Speed mode switch defines the range for the speed parameter. You might say that speed is actually defined by **Speed** and this mode parameter, which controls the interval of possible speeds. While this might seem inconvenient, it is often needed for fast workflow, because the range of speeds is extremely wide. It also potentially changes the latency.

Side-chain panel
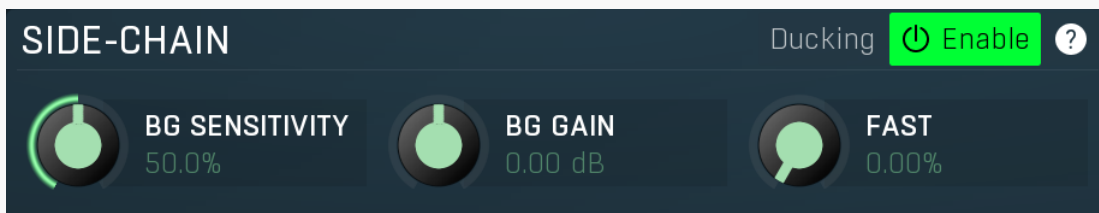
Side-chain panel controls the side-chain input. Normally the plugin stabilizes the input volume to a predefined level. When you enable side-chain input, the plugin will detect its volume and adjust the level of the main signal accordingly. For example, when you process lead vocals, you can route all other tracks into the side-chain and the plugin will ensure the vocal volume will always be approximately as loud as the background, so that the vocal will always stay on top.

Ducking

Ducking activates ducking mode - instead of increasing input volume when the background (sidechain) volume increases, it attenuates the input. In this case the main input loudness is simply ignored. Please note that in order for this to work, you may need to adjust the background gain appropriately.
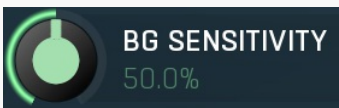
Background sensitivity

Background sensitivity is used to control how much the plugin listens to the side-chain signal. The higher the background sensitivity is, the more the plugin is affected by the side-chain level instead of some predefined constant level.
Range: 0.00% to 100.0%, default 50.0%
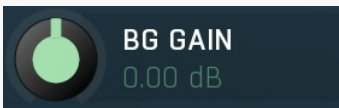
Background gain

Background gain amplifies or attenuates the side-chain signal before it is used for processing. This may be useful, when you want to compare the processor with and without side-chain. When side-chain is disabled, the output is levelled to a predefined volume. But your background may have very different volume, so that when you start switching the side-chain on and off, the requested gain would quickly change everytime you do that. With background gain you can tweak your background to avoid these changes, hence being able to optimally consider whether it is beneficial to use the side-chain or not.
Range: -24.00 dB to +24.00 dB, default 0.00 dB
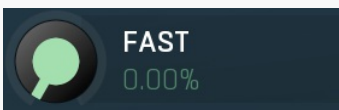
Fast

Fast controls the detector speed for the background. Normally it is set to a very slow mode, so that the input signal detector is the only quick one and the plugin avoids beating when input and side-chain levels are changing quickly. However using this parameter you can intentionally speed-up the background detector. That may especially be useful in ducking mode, where the main input needs to react quickly to the side-chain. The default 0% means the background speed is constantly very slow. 100% means the background and input detector speeds are the same.
Range: 0.00% to 100.0%, default 0.00%

Detector panel
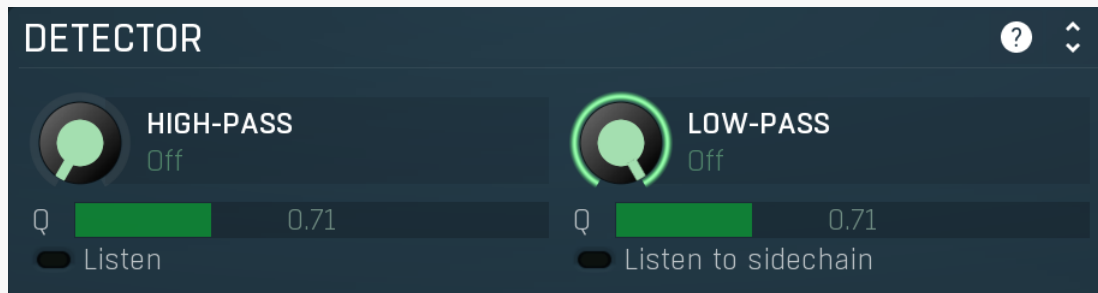
Detector panel contains some advanced detector parameters controlling how the loudness is measured.
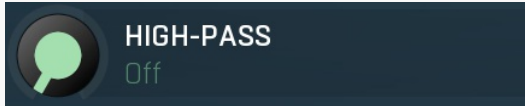
High-pass

High-pass defines the high-pass filter cut-off frequency used to preprocess the detector signal. Frequencies below this limit will be filtered out hence won't be relevant for loudness detection. Please note that only the main input level is preprocessed, side-chain input is kept intact.
Range: Off to 20.0 kHz, default Off
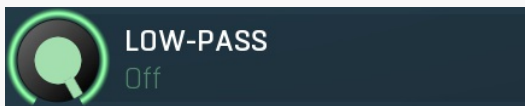
Low-pass

Low-pass defines the low-pass filter cut-off frequency used to preprocess the detector signal. Frequencies above this limit will be filtered out hence won't be relevant for loudness detection. Please note that only the main input level is preprocessed, side-chain input is kept intact.
Range: 20.00 Hz to Off, default Off

High-pass Q

High-pass Q controls the resonance of the high-pass filter.
Range: 0.05 to 100.00, default 0.71

Low-pass Q

Low-pass Q controls the resonance of the low-pass filter.
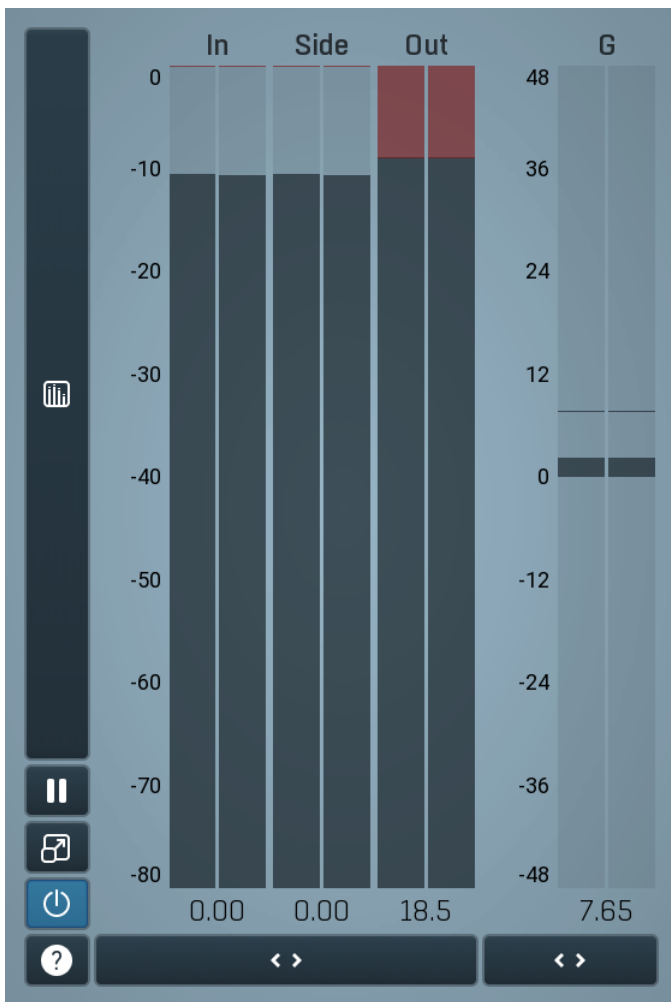Range: 0.05 to 100.00, default 0.71

Listen

Listen lets you audition just the filtered signal, so that you can adjust the HP/LP easily.

Listen to sidechain

Listen to sidechain lets you audition just the filtered signal from sidechain, so that you can adjust the HP/LP easily.

Global meter view

Global meter view provides a powerful metering system. If you do not see it in the plug-in, click the **Meters** or **Meters & Utilities** button to the right of the main controls. The display can work as either a classical level indicator or, in time graph mode, show one or more values in time. Use the first button to the left of the display to switch between the 2 modes and to control additional settings, including pause, disable and pop up the display into a floating window. The meter always shows the actual channels being processed, thus in M/S mode, it shows mid and side channels.

In the classical level indicators mode each of the meters also shows the recent maximum value. Click on any one of these values boxes to reset them all.

In meter indicates the total input level. The input meter shows the audio level before any specific processing (except potential oversampling and other pre-processing). It is always recommended to keep the input level under 0dB. You may need to adjust the previous processing plugins, track levels or gain stages to ensure that it is achieved.

As the levels approach 0dB, that part of the meters is displayed with **red** bars. And recent peak levels are indicated by single bars.

Out meter indicates the total output level. The output meter is the last item in the processing chain (except potential downsampling and other post-processing). It is always recommended to keep the output under 0dB.

As the levels approach 0dB, that part of the meters is displayed with **red** bars. And recent peak levels are indicated by single bars.

G meter shows the gain value for each channel. For maximum transparency, you should set the gain as close to 0dB as possible.

Time graph

Time graph button switches between the metering view and the time-graphs. The metering view provides an immediate view of the current values including a text representation. The time-graphs provide the same information over a period of time. Since different time-graphs often need different units, only the most important units are provided.

Pause

Pause button pauses the processing.

Popup

Popup button shows a pop-up window and moves the whole metering / time-graph system into it. This is especially useful in cases where you cannot enlarge the meters within the main window or such a task is too complicated. The pop-up window can be arbitrarily resized. In metering mode it is useful for easier reading from a distance for example. In time-graph mode it is useful for getting higher accuracy and a longer time perspective.

Enable

Enable button enables or disables the metering system. You can disable it to save system resources.

Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.

Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.

Utilities

Map

Map button displays all current mappings of modulators, multiparameters and MIDI (whichever subsystems the plugin provides).

Lock

Lock button displays the settings of the global parameter lock. Click on it using your left mouse button to open the Global Parameter Lock window, listing all those parameters that are currently able to be locked.
Click on it using your right mouse button or use the **menu button** to display the menu with learning capabilities - **Learn** activates the

learning mode, **Clear & Learn** deletes all currently-lockable parameters and then activates the learning mode. After that, every parameter you touch will be added to the lock. Learning mode is ended by clicking the button again.
The On/Off button built into the Lock button enables or disables the active locks.

Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.

Multiparameter

Multiparameter button displays settings of the multiparameter. The multiparameter value can be adjusted by dragging it or by pressing Shift and clicking it to enter a new value from the virtual keyboard or from your computer keyboard.

Click on the button using your left mouse button to open the **Multiparameter** window where all the details of the multiparameter can be set. Click on it using your right mouse button or click on the **menu button** to the right to display an additional menu with learning capabilities - as described below.

Menu

Menu button shows the **smart learn** menu. You can also use the right mouse button anywhere on the multiparameter button.

Learn attaches any parameters, including ranges. Click this, then move any parameters through the ranges that you want and click the multiparameter button again to finish. While learning is active, "REC" is displayed on the multiparameter button and learning mode is ended by clicking the button again.

Clear & Learn clears any parameters currently in the list then attaches any parameters, including ranges. Click this, then move any parameters through the ranges that you want and click the multiparameter button again to finish. While learning is active, "REC" is displayed on the multiparameter button and learning mode is ended by clicking the button again.

Reset resets all multiparameter settings to defaults.

Quick Learn clears any parameters currently in the list, attaches one parameter, including its range and assigns its name to the multiparameter. Click this, then move one parameter through the range that you want.

Attach MIDI Controller opens the MIDI Settings window, selects a unused parameter and activates MIDI learn. Click this then move the MIDI controller that you want to assign.

Reorder to ... lets you change the order of the multiparameters. This can be useful when creating active-presets. Please note that this feature can cause problems when one multiparameter controls other multiparameters, as these associations will not be preserved and they will need to be rebuilt.

In learning mode the multiparameter does not operate but rather records your actions. You can still adjust every automatable parameter and use it normally. When you change a parameter, the plugin associates that parameter with the multiparameter and also records the range of values that you set.

For example, to associate a frequency slider and make a multiparameter control it from 100Hz to 1KHz, just enable the smart learn mode, click the slider then move it from 100Hz to 1KHz (you can also edit the range later in the Multiparameter window too). Then disable the learning mode by clicking on the button.

Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.