MBassador

Overview

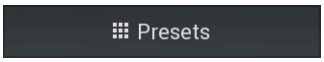
MBassador is an extremely powerful bass enhancer and subharmonic generator useful on any kind of audio material, that requires tight, strong and powerful bass content.

The plugin first uses a cross-over to separate the existing bass content from the rest of the signal, which is left intact. The bass content is then processed using 3 modules. Each of them generates some sort of bass/subbass signal, which you can arbitrarily mix with the output.

First there is **Bass enhancer**, which resynthesizes the bass signal itself in a very tight manner and produces higher harmonics, which help translate the bass signal onto low-end playback systems, which are not able to produce low frequencies well. It is enabled by default as it is almost always advantageous.

Second module is a **Sub generator**, which produces a subharmonic of the original signal, a tone an octave below the lowerst note in the signal. In many cases there is literally no spectral content below say 100Hz, which makes the bass sound weak. This module would synthesize 50Hz tone in the mentioned example, producing strong and tight bass. It is especially useful on any kind of drums and most bass instruments, especially when producing modern dance styles. Note that in order for this module to work, the bass content needs to be monophonic or percussive, which is usually true. However in other cases the output may become strongly disharmonic.

Finally the third module is a **Sub 2 generator**, which produces 2nd subharmonic, a tone 2 octaves below the lowest note. Considering 100Hz input signal the output would be 25Hz, which is unlikely to be audible at all, but it can be "felt" and you can hear the higher harmonics of this tone. It can be very well used on bass in modern dance styles and certainly on drums.



Presets button

Presets button shows a window with all available presets. A preset can be loaded from the preset window by double-clicking on it, using the arrow buttons or by using a combination of the arrow keys and Enter on 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.

Holding **Ctrl** while pressing the button loads an existing preset, selected at random.

Presets can be backed up by using either the Export button, or by saving the actual preset files, which are found in the following directories:
Windows: C:\Users\{username}\AppData\Roaming\MeldaProduction
Mac OS X: ~/Library/Application support/MeldaProduction

Exported preset files can be loaded into the plug-in's preset store using the Import button. Or the preset files themselves can be copied into the directories named above.

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

Left arrow button

Left arrow button loads the previous preset.

Right arrow button

Right arrow button loads the next preset.

Randomize button

Randomize button loads a random preset.

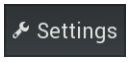
Save button

Save button replaces the current preset.

Panic button

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 button

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

Activate lets you activate the plugin if the drag & drop activation method does not work in your host. In this case either click this button and browse to the licence file on your computer and select it. Or open the licence file in any text editor, copy its contents to the system clipboard and click this button. The plugin will then perform the activation using the data in the clipboard, if possible.

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).

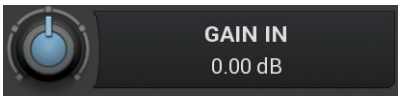
Advanced settings configures several processing options for the plug-in.

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.

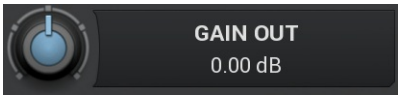
WWW button

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.



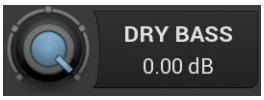
Gain In

Gain In defines the power modification applied to the input signal.
Range: -24.00 dB to +24.00 dB, default 0.00 dB



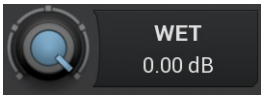
Gain Out

Gain Out defines the power modification applied to the output signal.
Range: -24.00 dB to +24.00 dB, default 0.00 dB



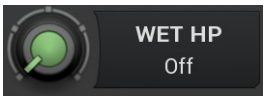
Dry bass

Dry bass defines the amount of bass dry signal allowed to go through. Note that the frequencies above the **Range** are always let through.
Range: silence to 0.00 dB, default 0.00 dB



Wet

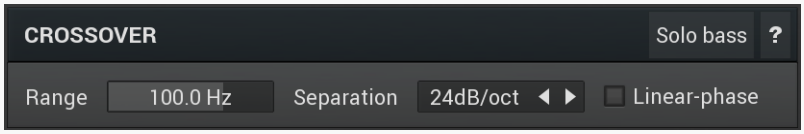
Wet defines the amount of synthesized signal allowed to go through. This essentially controls all of the **Level** values for each synthesized signals at once.
Range: silence to 0.00 dB, default 0.00 dB



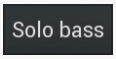
Wet HP

Wet HP controls a high-pass filter processing the synthesized signal. It may be useful when the generator creates too much ultra-low-frequency content caused by transients for example.
Range: Off to 200.0 Hz, default Off

Crossover panel



Crossover panel contains parameters of the 2 band crossover, which extracts the bass frequencies from the signal.

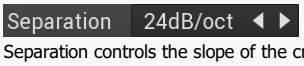


Solo bass

Solo bass switch lets you audition just the lower band of the crossover - the bass being processed.

Range

Range controls the crossover split frequency, hence the maximum frequency being processed.Ideally there should be only one voice in the bass band, so you should set the range as low as possible, but high enough to keep some signal in it. If you set the range too low, there won't be any bass signal to process and the plugin won't generate any signal, or just some kind of low frequency rumble if the input is noisy for example. If you set it too high however, the bass signal may be too complex and since the algorithm is based on various filtering and amping, it is likely that the output will be severely disharmonic.
Range: 20.00 Hz to 200.0 Hz, default 100.0 Hz



Separation

Separation controls the slope of the crossover. The higher it is, the cleaner the bass signal will be, however unless you use **Linear-phase** option, the crossover may cause severe phase shift, which usually sounds like some sort of smearing in time. Since linear-phase filtering induces latency, it may not be an option for realtime processing, in which case you need to keep the separation lower. Too high separation also requires very precise **Range** setting.

Linear-phase

Linear-phase option enables the linear-phase crossover, meaning that the plugin will not cause any phase shift to the original signal, however it will induce latency, which is usually unacceptable for live use.

Bass panel

Bass panel contains parameters of the bass enhancer. It essentially resynthesizes the original bass signal improving its clarity and providing higher harmonics, that are useful for playback on low-end user monitors and headphones, which are unable to translate the lowest frequencies.

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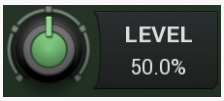


Level

Level controls the level of synthesized bass signal added to the output.
Range: 0.00% to 100.0%, default 50.0%

Tone

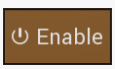
Tone controls the tone of the synthesized bass signal. It defines the frequency of the low-pass filter used by the algorithm. -100% means it will be placed one octave below the crossover point, the **Range**, making the produced sound cleaner. +100% means an octave above making the output richer in higher harmonics.
Range: -100.0% to 100.0%, default 0.00%

Saturation

Saturation controls the amount of saturation/distortion produced by the integrated amp. When this is set to -100%, the amp is completely bypassed and generated signal is usually very clean. As such however it may quite low in loudness, since human perception of bass signals is quite bad. Therefore you would need to increase the level significantly, which usually ends up with very high output peak levels. With 0% the amp is fully functional, reducing the output peak level significantly and generating higher level harmonics making the output signal easy to reproduce and audition. By increasing the saturation above 0% you enable additional higher harmonics generator, useful to further enrich the output signal. This however usually also increases output peak level.
Range: -100.0% to 100.0%, default 0.00%

Sub panel

Sub panel contains parameters of the subbass generator, traditionally called "octaver". It synthesizes a signal an octave below the original signal, which is useful for providing additional low frequency content and due to generated higher harmonics, it usually also improves clarity of the original bass signal. In order for this algorithm to work well with harmonic signals, such as bass, it is essential to make the input as clean as possible using the **Crossover** parameters.



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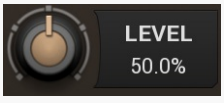

Level

Level controls the level of synthesized bass signal added to the output.
Range: 0.00% to 100.0%, default 50.0%

Tone

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Range: -100.0% to 100.0%, default 0.00%

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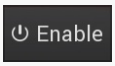
Range: -100.0% to 100.0%, default 0.00%

Sub2 panel

Sub2 panel contains parameters of the subbass-2 generator. It synthesizes a signal 2 octaves below the original signal, which is useful for providing extremely low frequency content, especially desired in modern dance styles. In order for this algorithm to work well with harmonic signals, such as bass, it is essential to make the input as clean as possible using the **Crossover** parameters.



Sub2 panel

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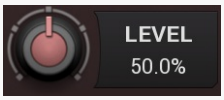


Level

Level controls the level of synthesized bass signal added to the output.
Range: 0.00% to 100.0%, default 50.0%

Tone

Tone controls the tone of the synthesized subbass-2 signal. It defines the frequency of the low-pass filter used by the algorithm. -100% means it will be placed one octave below the predefined frequency, making the produced sound cleaner. +100% means an octave above making the output richer in higher harmonics.
Range: -100.0% to 100.0%, default 0.00%

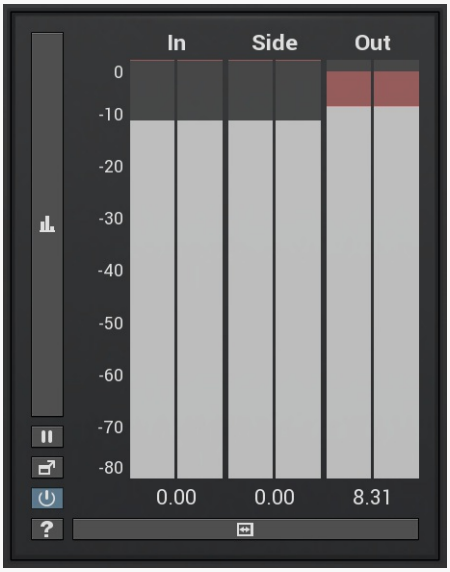
Saturation

Saturation controls the amount of saturation/distortion produced by the integrated amp. When this is set to -100%, the amp is completely bypassed and generated signal is usually very clean. As such however it may quite low in loudness, since human perception of bass signals is quite bad. Therefore you would need to increase the level significantly, which usually ends up with very high output peak levels. With 0% the amp is fully functional, reducing the output peak level significantly and generating higher level harmonics making the output signal easy to reproduce and audition. By increasing the saturation above 0% you enable additional higher harmonics generator, useful to further enrich the output signal. This however usually also increases output peak level.
Range: -100.0% to 100.0%, default 0.00%

Meter view

Meter view shows level measurements for the input dry bass signal, the enhancement bass signal and both synthesized subharmonics. It is especially useful since low frequency signals often need to be very high level in order to be audible.

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 & Subsystems** 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 upsampling 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.

Time graph button

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 button

Pause button pauses the processing.

Popup button

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.

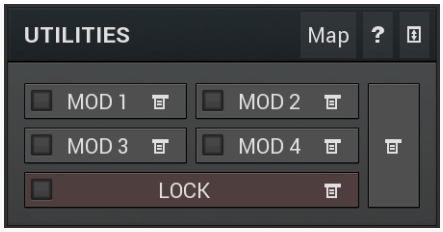
Enable button

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

Collapse button

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

Utilities



Map button

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

Modulator button

Modulator button displays settings of the modulator. It also contains a checkbox, to the left, which you can use to enable or disable the modulator. Click on it using your right mouse button or use the **menu button** to display an additional menu with learning capabilities - as described below.

Menu button

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

Learn activates the learning mode and displays "REC" on the button as a reminder, **Clear & learn** deletes all parameters currently associated with the modulator, then activates the learning mode as above. After that every parameter you touch will be associated to the modulator along with the range that the parameter was changed. Learning mode is ended by clicking the button again.

In smart learn mode the modulator 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 modulator and also records the range of values that you set.

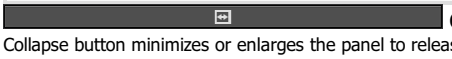
For example, to associate a frequency slider and make a modulator control it from 100Hz to 1KHz, just enable the smart learn mode, click the slider then move it from 100Hz to 1KHz (you can also edit the range later in the modulator window too). Then disable the learning mode by clicking on the button.

Menu button

Menu button displays additional menu containing features for modulator presets and randomization.

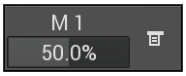
Lock button

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 button

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



Multiparameter button

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 button

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.

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