**Vengeance Producer Suite Multiband Sidechain**

User Guide:

*Version: 1.0 Update: August 2009*

Dear customer,

thank you for choosing the Vengeance Producer Suite: Multiband Sidechain (which will be abbreviated to VPS MBS throughout this document).

Unquestionably the most comprehensive and flexible sidechain plugin currently available, VPS MBS has the unique ability to process two bands (Low and Hi) completely independantly, and the Split Frequency is freely definable. Optionally, VPS MBS can run in Single Band mode, which also features several useful parameters that can only be found in this plugin.




*The VPS MBS window, full view*

Authorizing VPS MBS:

First of all, make sure that you have a Steinberg key (also known as Syncrosoft / eLicenser dongle), and that this is plugged into a USB port on your PC or Mac.

If you don't own one yet, you can order a Steinberg Key from one of many online sources. Simply google „Steinberg Key“ for popular sources. (for example www.thomann.de/de/steinberg_key.htm)

The dongle serves as hardware-based copy protection for software – not only VPS MBS, but also for several other professional products.

To manage your licenses – including VPS MBS – you will need to run the free Licence Control Center (LCC) software, which can be downloaded here:

www.elicenser.net

Please make sure that you always have the latest version of LCC installed.

Immediately after ordering VPS MBS, you should receive your licence per e-mail, after which you can start LCC and activate it. Note that an Internet connection is required.

Installation (PC):

Start VPSMBSsetup.exe and install the plugin to your standard „VSTPlugins“ folder, as accessed by your sequencer / DAW. Follow instructions on the screen. VPS MBS will become available the next time you start the sequencer.

Installation (Mac):

Unpack the file VPSMBSidechain.pkg.zip and start VPSMBSidechain.pkg.
Follow instructions on the screen

The standardfolder for the VST version is: /Library/Audio/Plug-Ins/VST
The standardfolder for the AU version is: /Library/Audio/Plug-Ins/Components

please make sure that following files are present in these folders : VPS MB Sidechain and VPS Transmitter.

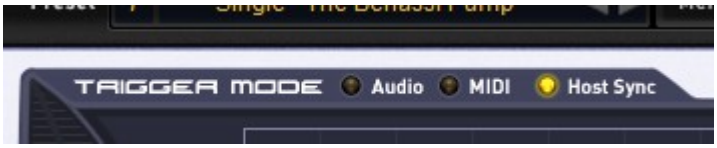
VPS MBS will become available the next time you start the sequencer.

**Vengeance Producer Suite: Multiband Sidechain – An Overview of Functions**

Should you wish to learn more about VPS MBS, you will find an in-depth tutorial video at: www.vengeance-sound.com

TRIGGER MODE:

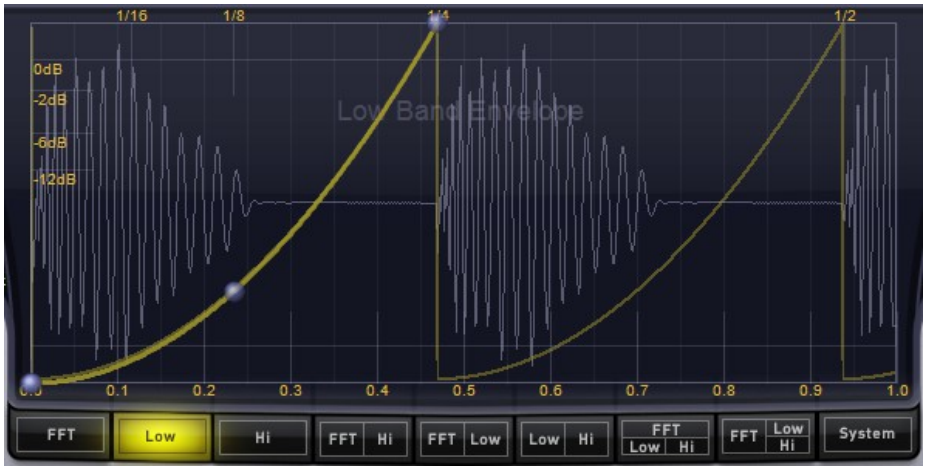
You can choose between 3 different Trigger Modes. The selected trigger (e.g. your bass drum track) then becomes the signal that activates the sidechain effect.




Audio: This trigger mode uses a „real bass drum“ (for instance) in your song. In order to use Audio mode, all you have to do is select „VPS Transmitter“ as an Insert effect within your bass drum track. VPS Transmitter sends the bass drum signal into VPS MBS. As soon as you have activated „VPS Transmitter“ in your bass drum track and selected „Audio“ trigger mode in VPS MBS, switch to the „Low Band Envelope“ view by clicking on the „Low“ button:




The waveform of your bass drum should appear in the main display area:



Now adjust the Sensitivity („Sens“) control to a value around half that of the maximum peak in your trigger signal:

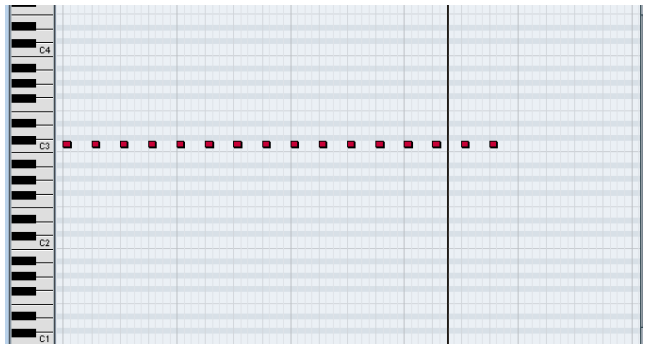



*The Sensitivity Control*



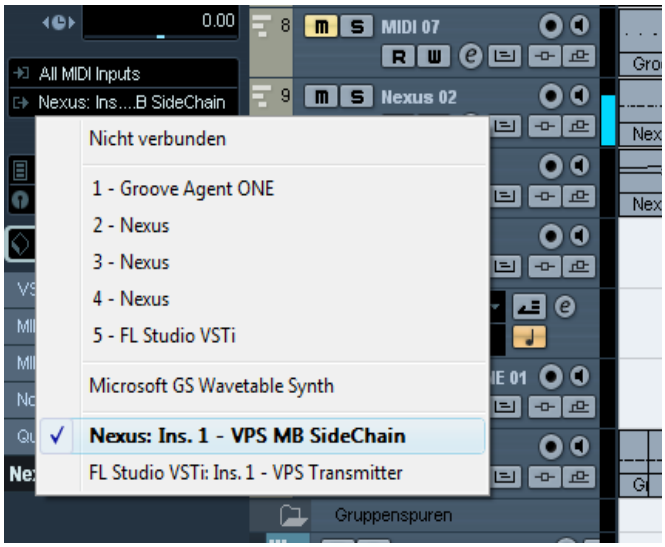

Finished! You should already be able to hear the sidechain effect.

MIDI: This mode uses MIDI notes as trigger source. Try it: Create a MIDI track in your seuencer, and add short notes on each beat. The results should look something like this:




*Piano Roll view in Cubase*

Now route the MIDI track's output to VPS MBS:




*Routing example: Cubase*

After creating and routing the MIDI track, and having selected MIDI as trigger mode in VPS MBS, now go to the „Low Envelope“ view:




You should see a rectangle representing each MIDI note you entered into the piano roll. Note that the “Sens” control we used in Audio mode has no function in MIDI mode.

Host Sync: This mode requires no external trigger source whatsoever – the effect is automatically triggered on each beat (quarter) at the tempo set in your sequencer. Host sync mode is the fastest way to add a standard sidechain effect to any track. Visualization is the same as in MIDI trigger mode (see above).

LEVEL CONTROLS:

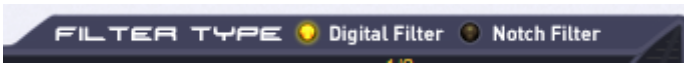



*The VPS MBS level meters and gain controls*

In/Out Gains: The two gain knobs are used for controlling the input and output levels of the audio signal. The standard setting is 0dB i.e. no change. If you notice any clipping caused by a signal being too loud (the meters are a useful visual reference for setting levels), you should reduce values here.

FILTER TYPE:

The audio signal is split into two bands using a crossover filter. You have a choice of two different models: Digital Filter and Notch Filter. The digital model sounds very pure, there are no noticeable artifacts, and this is the filter type recommended for most situations. The notch model introduces cancellation effects and other artifacts, and is therefore more suitable for special effects.




*Filter Type selector*

MULTIBAND OPTIONS:




*The Multiband Section*

Split Freq: The cutoff frequency used to split the signal into seperate (low and high) bands. If you set Split Freq to minimum, VPS MBS will run in Single Band Mode, only using the High band. Similarly, if you set Split Freq to maximum, VPS MBS will run in Single Band Mode using the Low band.

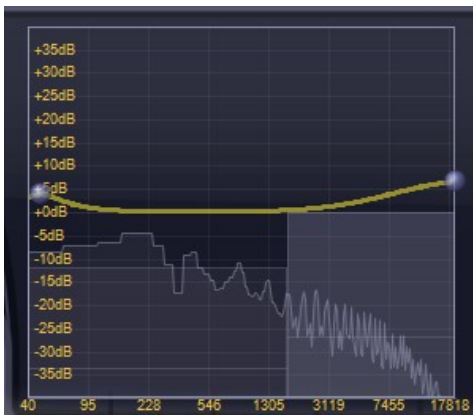
Listen: Selects which portion of the signal will be audible.

All Bands: The entire signal

Low Env: Only frequencies below the Split point

High Env: Only frequencies above the Split point

Volumes: The Low Vol and High Vol knobs let you control the relative levels of the two bands.




*Tip: You can edit all these values from within the graphic display:*
*Click and drag the blue-gray pips – the knobs will move accordingly.*

THE ENVELOPE SECTION:




*The two envelopes: Dramatic control over the resulting sound*

Both envelopes in this section feature an identical set of controls, one for each frequency band (Low and High). The individual parameters are:

Strength: Sets the amount of sidechain effect from 0% to 100%, whereby any value below 100% allows a portion of the original signal to pass unprocessed. The lower the value of Strength, the more unprocessed signal is present. At 0% you will hear no sidechain effect at all, only the original signal.

Atk: The inner knob here controls the length of the envelope's Attack phase, expressed in milliseconds. Attack determines how long it takes for the processed signal to fall from the Strength value to zero. The Attack phase starts as soon as the envelope is triggered (see TRIGGER MODE above).

Curve (Atk): The outer rim determines the curvature or „law“ of the Attack. A value of 0 here (at 12 o'clock) means that the law is linear i.e. a straight line. Negative values make the curve more concave, positive values make the curve more convex.

Hold: This knob determines how long the signal will remain at the level set by the Strength parameter, after the Attack phase and before the Release phase (see below).

Rel: The inner knob here determines the length of the envelope's Release phase in milliseconds. The last phase in the envelope, Release allows the signal to rise again to its original level. Release is probably the most important phase, as it most noticeably determines the character of the sidechain-typical pumping effect.

Curve (Rel): The outer rim determines the „law“ of the Release curve. A value of 0 here (at 12 o'clock) means that the law is linear. Negative values make the curve more concave, positive values make the curve more convex.

THE EQUALIZER:




*View of the EQ section*

VPS MBS includes two independent equalizer bands (EQ1 and EQ2). The controls for both bands are identical:

Freq: The outer rim controls band frequency.

Gain: The inner knob controls how much the volume will be reduced or boosted. The range is -20dB to +20dB.

Width: This knob controls the width or „Q“ of the band. A value of 5% is a very narrow band which can result in a whistling effect, while 100% is a very wide band more suitable for drastic equalization.

THE BUTTON BAR:




*The VPS MBS button bar*

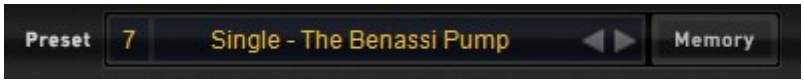
The central row of buttons offers quick access to a variety of views which will appear in the main display area immediately above the bar. Custom views are available via the Context Menu (see below).

System: Several additional features may become available in future, so this page gives you a link to where you can download the appropriate files. Also displayed are the current version number and information about the manufacturer.

The „Trigger Lock“ option determines the time interval (in milliseconds) during which no further trigger is accepted. An example: Using a real bass drum track as trigger, it is likely that they are not all the same shape. Forcing the program to wait until it accepts a new trigger can compensate for any unusual kicks in which e.g. a slight dip in the middle crosses the Sensitivity threshold. Of course you can „misuse“ Trigger Lock for creative sidechain effects. If, for instance, you set Trigger Lock to a value above, say, 600ms, this can reject every second kick in your track. Note that Trigger Lock only works in Audio Trigger Mode.

Note: As VMS MBS develops, this page may contain additional settings and information.

THE PRESET BROWSER:



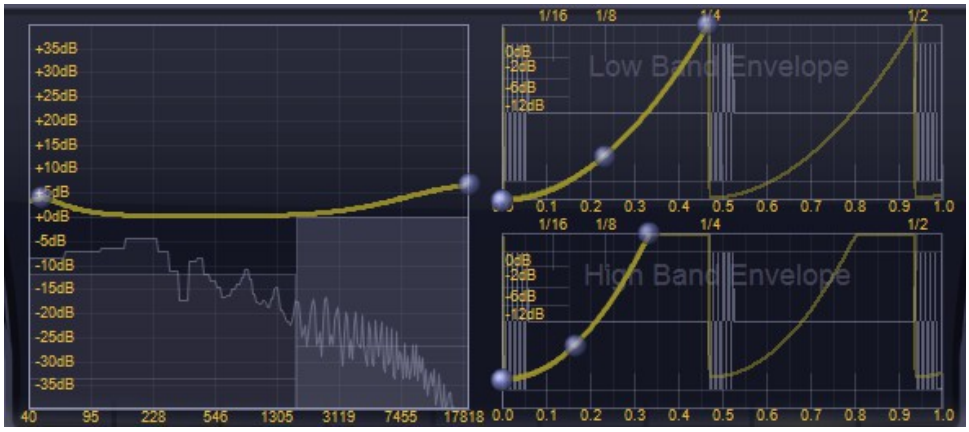

*Browser with preset 7 selected*

Center: The name of the currently loaded preset. The number to the left („7“ in the above image) is the index of the current preset, and if you click here, all 32 presets in the current bank will appear in a drop-down list.

Arrows: Step through the list, backwards or forwards.

Memory: Pressing this button accesses the Save and Load functions, as well as INIT, which resets all presets to default values – the ideal starting point whenever you want to create your own effects from scratch.

THE MAIN DISPLAY:




*The main display can accommodate up to 3 sub-windows*

FFT: Short for „Fast Fourier Transformation“ – a view of the frequency spectrum of the main input signal only. Overlayed are the two EQ bands in the form of a (yellow) curve with two (blue-gray) draggable controls, thus allowing direct EQ control within the display.

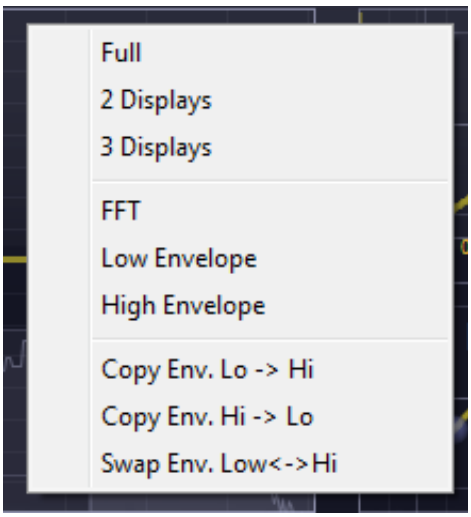
Low: Low Band Envelope only. Like in the FFT display, this also features overlayed controls (yellow curve and blue-gray pips), in this case for the Low Band Envelope settings.

Hi: High Band Envelope only. Like in the FFT and Low displays, this also features overlayed controls, in this case for the High Band Envelope settings.

The next 5 buttons offer various fixed combinations of the above.

THE CONTEXT MENU:

A right-click on the Button Bar opens a context menu in which you can select further options:




*Context menu – custom display formats and envelope copy functions*

Full: Expands the selected window to fill the whole display

2 Displays: Lets you display two different windows next to each other

3 Displays: Lets you display three different windows next to each other

FFT: Opens the FFT view in the current window

Low Env.: Opens the Low Envelope view in the current window

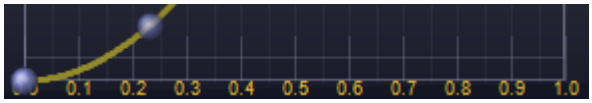
High Env.: Opens the High Envelope view in the current window

Copy Env.: These two options let you copy all settings from one envelope to the other.

Swap Env.: Exchanges all settings between the two envelopes.

SCALES AND RANGES:

Low / Hi:



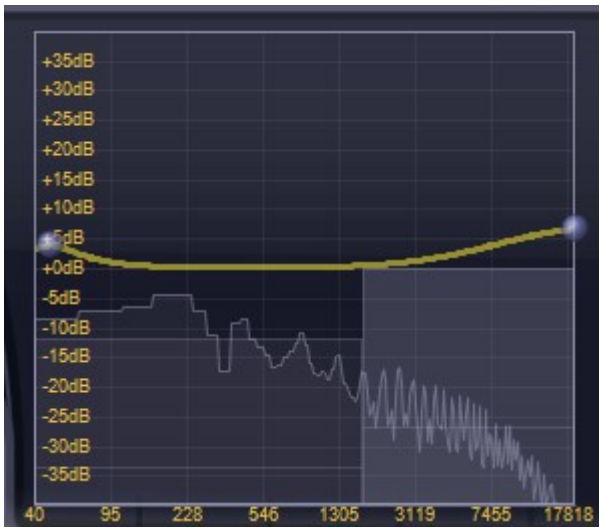

*This scale shows milliseconds from 0 to 1 second.*




*This scale shows bar division in 16th, 8th, quarter and half notes.*
*If the song tempo is set very low, these will be replaced by a >> symbol.*

The bar division scale is a useful guide. If you slowly move the release curve directly within the display, you should notice that it snaps to the next bass drum here (at precisely 1/4).

FFT:




*FFT view, reduced in size*

The horizontal scale in the FFT view shows the frequency spectrum from 40Hz to 18kHz, and serves as orientation when you are adjusting the equalizer settings. The vertical scale shows amplitude in Decibels.

AUTOMATION:

All VPS MBS parameters can be automated within your sequencer / DAW. For more information about this feature, please refer to the documentation of your chosen host application.




*System Page view*

Tipps and new update features:

Global MID I trigger:

Since update 1.0.4, you can - instead of routing it directly into the „VPS MBS“ - route your MIDI track into your “Transmitter” PlugIn. Now you can trigger all loaded “VPS MBS” units by setting the trigger mode to “Audio” in all instances. This has the advantage, that you can use your ONE global MIDI track, to trigger all your “VPS MBS”!

MIDI velocity:

Since update 1.0.5, the “VPS MBS” reacts to MIDI velocity! The more/less velocity, the more or less sidechain effect you will hear. MIDI velocity is also working, if you route it through the transmitter (see above)

Automatic BPM re-scale:

Since update 1.0.5, all presets are synced to your host tempo! All Presets were originally designed for 128BPM. If you used a preset in a 140BPM track for example, the envelopes were not 100% synced. That’s now history – the “VPS MBS” automatically re-scales all envelope settings to your songtempo. It even follows, if you used tempoautomation in your song.

Restore Factory Bank/Preset:

Since update 1.0.5 you can find a new function by pressing on the”Memory” button. “Restore Factory Bank” restore all preset to default, “Restore Factory Preset” restores the selected preset. Useful if you tweaked it too much and want back to the beginning to start all over again.

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Technical Support: www.vengeance-forum.com

Contact: info@vengeance-sound.com