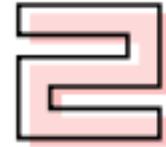


Mr. Alias



USER'S MANUAL



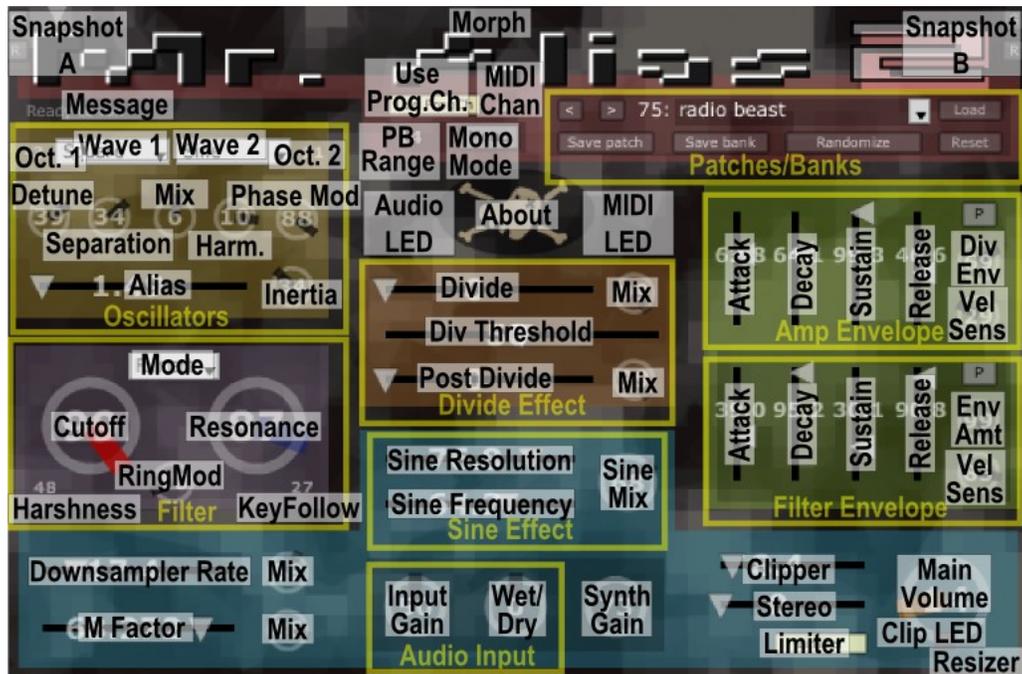
TABLE OF CONTENTS

Theory.....	1
Controls.....	2
Interface Notes.....	2
MIDI Control.....	3
Patches / Banks.....	4
Snapshots / Morphing.....	4
Oscillators.....	4
Envelopes.....	5
Effects.....	5
Audio Input.....	6
Signal Flow.....	7
Credits.....	7
Source Code.....	7

THEORY

Mr. Alias 2 uses non-bandlimited oscillators which can be transposed near to and beyond the Nyquist frequency, causing most of their spectra to be aliased back into audible non-harmonic frequencies. The sound can then be further processed by a number of crude "effects."

CONTROLS



INTERFACE NOTES

- Drag the corner to resize the interface.
- Hover over any control for a tooltip.
- Right-click a control for more options, which are explained later in the manual.
- Sliders & knobs:
 - Adjustable with mouse wheel
 - Ctrl-drag for fine adjustment
 - Double-click to reset
 - Ctrl-click the **Piz Logo** to hide/show the numbers
- **Reset** button: sets all controls to default values.
- Clicking the **Randomize** button randomizes all controls. The randomization amount is less on the left, and more on the right of the button. Ctrl-click for a very small randomization. Note that random settings will almost certainly sound terrible.
- The **Clip Indicator** under the **Main Volume** knob lights up when the output is outside the -1.0 to $+1.0$ range. The signal is not actually clipped within the plugin.

MIDI CONTROL

- By default, Mr. Alias 2 responds on all MIDI channels. You can change this with the little number above the **Mono** button. While a MIDI note is being played, the **MIDI Indicator LED** lights up.
- Mr. Alias 2 responds to Notes (with velocity), Sustain Pedal (CC 64), All Notes Off (CC 123), Pitch Bend, and (optionally) Program Change.
- Additionally, any parameter can be controlled by any CC. A single CC can control any number of parameters, within any range. Right-click on a control for the settings:
 - The text box allows you to set the CC number directly. Velocity, Channel Pressure, and Polyphonic Aftertouch can also be selected here (128, 129, 130). Set to -1 (Unset) to disable.
 - **MIDI Learn**: activates MIDI Learn for this control. The next CC received will be used. For sliders, there will be a yellow highlight while it's waiting. Any number of controls can be "learned" at once. Middle-click also activates MIDI Learn.
 - **Clear CC Mapping**: clears the CC assignment for this control only.
 - **Set Min**: use the control's current value as the low value (when the CC is at 0).
 - **Set Max**: use the control's current value as the high value (when the CC is at 127).
 - **Reverse**: swaps the Min and Max values. A check mark here indicates that Min is higher than Max.
 - **Apply to Bank**: sets the CC Mapping for this control the same for all patches in the bank.
 - **Clear from Bank**: clears any CC Mapping for this control from all patches in the bank.

There are also some global CC Mapping options:

- **Use CC Mapping**: just turns on or off CC Mapping, without resetting the values. When this is off, the CC Map won't be saved in patch/bank files.
 - **Clear All CC Mapping**: resets CC Map for the current patch.
 - **Apply All to Bank**: applies current CC Map to every patch.
 - **Save CC Map to File**: saves the CC Map to a ".MrAliasCCMap" XML file.
- CC mappings can be saved with the bank/patch, or separately as a ".MrAliasCCMap" XML file. Load by drag & drop or from the **Load** button.
 - **Pitch Bend Range**: when set to 0, it is actually a very small pitch change (1/10 of a semitone).

PATCHES / BANKS

- The default bank is loaded from the file `Default.MrAliasBank` in the same directory as the plugin, or if that does not exist, it will look for `MrAlias2.fxb`. Otherwise you get a bank of blank presets.
- The patch/bank formats are XML and can be edited in a text editor, but remember that the parameter ranges are from 0.0-1.0 rather than the values displayed on the GUI.
- Drag & drop, or use the **Load** button to load a bank, patch, or CC map in the internal XML format (`.MrAliasBank/.MrAliasPatch/.MrAliasCCMap`) as well as `.fxb/.fxp` format.
- Turn on **Use ProgCh** to have Mr. Alias 2 respond to MIDI Program Change.

SNAPSHOTS / MORPHING

- Two parameter snapshots (called **A** and **B**) can be saved. This lets you experiment wildly with CC control, for example, and then instantly go back to certain "good" settings, or to morph between two patches (see below).
- The **Morph** slider fades between the two snapshots (note: if you assign a CC to this slider, that CC won't be able to control anything else).
- Click **S** to save and **R** to recall either snapshot. By default, Snapshot A is always set to the last loaded patch. This is signified by the highlighting of the **S** button. This behavior can be toggled (for either snapshot) by shift- or ctrl-clicking the **S** button.
- The snapshots and **Morph** position are saved with the bank.
- In the right-click menu of each control:
 - **Apply Value to A & B**: set the control as constant between the two snapshots, using its current value.

OSCILLATORS

- There are two oscillators. The second can be disabled to relieve CPU power by setting **Osc Mix** to -99. The octave of each oscillator can be independently set to extreme values (or shift-drag either octave control to change both by the same amount). Additionally, **Osc 2** can be offset from **Osc 1** in terms of overtones, and **Osc 1** can modulate the phase of **Osc 2**.
- **Osc Separation** controls the amount that the two signals are mixed before going through the effects. This coupling/decoupling can make a large difference when the **Divide** effect is used. It can also be thought of as a pre-effects panning control: When set to 0, stereo processing of the synthesizer section is disabled; at ±99, the

oscillators are panned hard left and right, though they can be unpanned with the global **Stereo** control.

- The **Alias** slider is really a control for the base frequency of the oscillators. The integer steps correspond to the harmonic series. **Detune** gives you finer control, but pitches the oscillators in opposite directions.
- **Inertia** smooths out changes in the **Alias** slider, and also in MIDI Pitch Bend and the **Downsampler Rate**.
- The available waveforms range from standard (RampUp, RampDown, Square, Triangle, Sine) to "interesting."
- Mr. Alias 2 has 6-voice polyphony, with an optional **Mono** mode.

ENVELOPES

- There are three levels of curvature for the envelopes, determined by the state of the **P** button. When on, the curves have a more exponential shape. Shift-clicking the button gives you "P!" mode.
- Shift-dragging the **Decay** or **Release** sliders makes an automatic "percussive" envelope: **Decay = Release**, **Attack & Sustain = 0**, and "P!" curvature. Shift-click without dragging just sets **Decay** equal to **Release**.
- When set to 0, **Attack**, **Decay**, and **Release** are very fast and can cause clicks. Resetting (double-clicking) the sliders sets them to 1 for this reason. The envelope is determined at the start of a note, so changes won't affect notes that are already playing.
- The only way to stop a note in the release phase is to send CC 123 ("All Notes Off / MIDI Panic"). **Release** at 100 is extremely long (about 45 seconds), so watch out.

EFFECTS

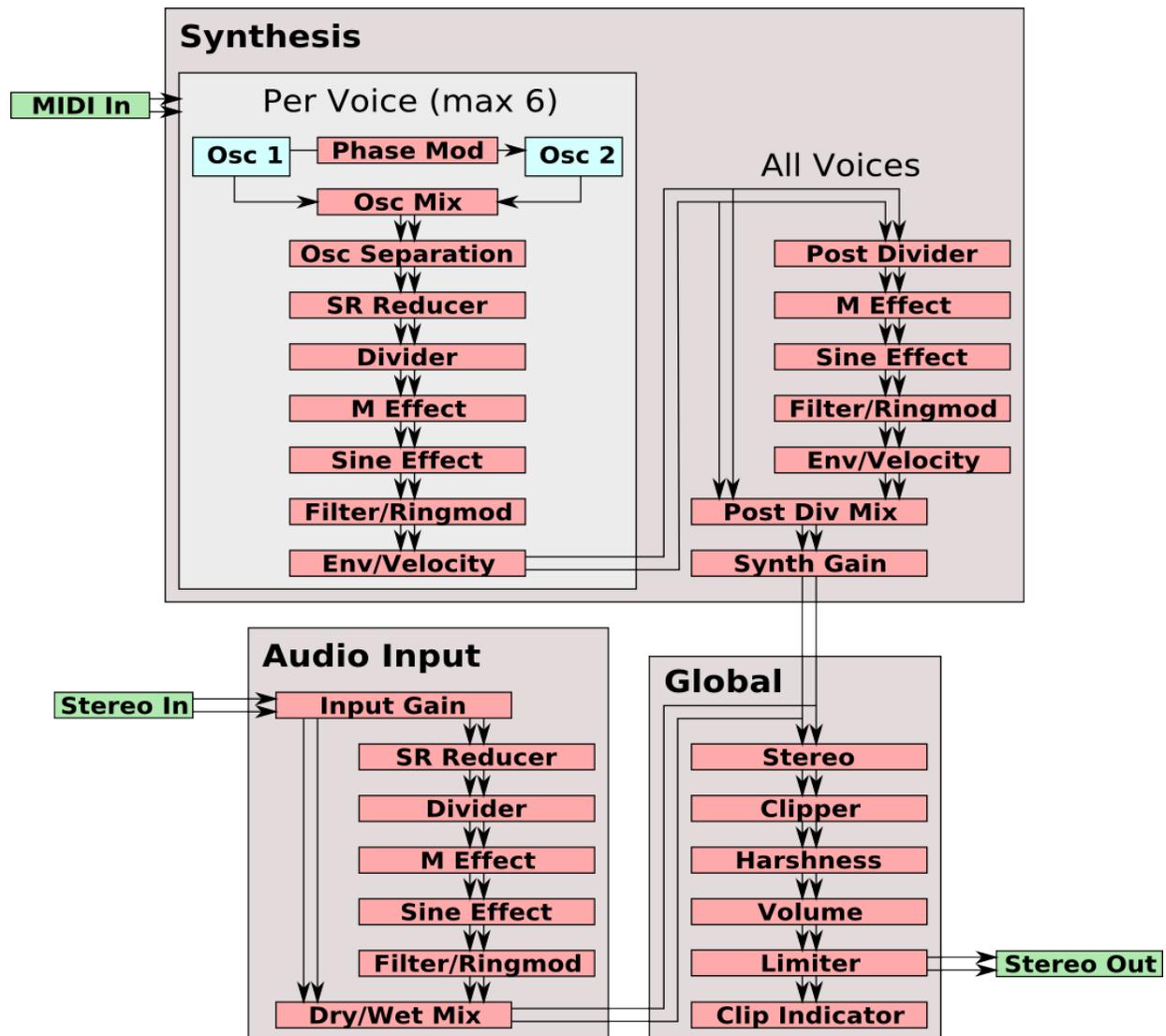
- **Downsampler Rate**: Reduces the effective sample rate by sample & hold. Lower values correspond to a lower sample rate. Disabled when **Downsampler Mix** is set to 0.
- **Divide**: Turns the signal into a square wave at a lower pitch. Disabled when set to 0. The **Div Threshold** is shared by the per-voice divider and the post-divider. **Pre-Divider Env Amount** applies the amplitude envelope to the signal going into the **Divide** effect. **Post Divide** is applied to all voices at once, and has a separate effects chain which can all be disabled by setting **Post Divide** to 0.
- **M Factor**: Another method of turning the signal into a pulse/square wave. Disabled when set to 0.

- **Sine Effect:** Uses the audio amplitude to control the pitch of a sine wave. **Sine Resolution** determines how often the pitch is updated, while **Sine Frequency** sets the overall range of possible pitches. Disabled when **Sine Mix** is 0.
- **Filter:** Choose from a steep lowpass with weird high resonance ("Low24"), the lowpass/bandpass/notch/highpass modes of a boring state variable filter, a formant filter, or no filter. The **Cutoff** knob sets the maximum, which can then be scaled by the key follower, filter envelope, and MIDI velocity. For the formant filter, **Cutoff** controls the vowel (U/O/A/E/I low to high).
- **Ring Modulation:** This is part of the filter, in that the filtered signal is modulated by the unfiltered signal. Disabled when set to 0, or when the filter itself is disabled.
- **Clipper:** Mixes the original signal with a hard-clipped signal. Disabled when set to 0.
- **Stereo:** Sets the overall amount of stereo separation. At 0, the left and right channels are mixed to mono.
- **Harshness:** Sets the cutoff frequency of a one-pole low pass filter. Disabled when set to 99. At 0, you get decidedly pleasant non-harsh silence.

AUDIO INPUT

- Some hosts may have problems sending audio through an "instrument" plugin. For VST only: To force Mr. Alias 2 to load as an effect, put "fx" somewhere in the filename. To completely disable the audio inputs, put "nofx" in the filename.
- When external audio is being processed, the **Audio Input LED** lights up.
- Running external audio through Mr. Alias 2 will invariably make it sound like garbage. For best results, set **Input Gain** to 0.
- Audio Input processing is completely disabled when no input is connected, or when **Input Gain** is set to 0. When **Wet/Dry** is fully dry (-99), no effects are processed, but the input is passed directly to the output.
- The Audio Input functionality will be expanded in future versions. That's why the rest of this page is blank.

SIGNAL FLOW



CREDITS

Includes patches by [Felix Petrescu \(Waka X\)](#). The limiter and a few other lines are from the [MDA VST plugins](#), copyright Paul Kellett. [JUCE](#) is copyright Raw Material Software ltd. Special thanks to all secret beta testers.

SOURCE CODE

Mr. Alias 2 is written in C++ using the JUCE framework. The full source code is available at the Mr. Alias 2 web site (www.thepiz.org/mralias2).

Mr. Alias 2 is Copyright and Copywronng © 2009 Insert Piz Here->