

# PanMan

Rhythmic Autopanning Effects

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User's Guide

Version 5 : For Mac and Windows



## THE BASICS / Pg. 4

---

About PanMan ..... pg. 5

## THE PANMAN CONTROL PANEL / Pg. 6

---

Input and Output Level..... pg. 6

Common Controls ..... pg. 7

Offset ..... pg. 7

Width ..... pg. 7

Smoothing ..... pg. 7

Pan Position Meter ..... pg. 7

## PANMAN MODULATION MODES / Pg. 8

---

Choosing a Modulation Type / Source ..... pg. 8

## LFO MODE / Pg. 9

---

Rate ..... pg. 9

Direction ..... pg. 10

LFO Mode Tweak Menu ..... pg. 10

Threshold ..... pg. 11

Attack ..... pg. 11

Release ..... pg. 12

Mode ..... pg. 12

Offset ..... pg. 13

Width Mod ..... pg. 13

Rate Mod ..... pg. 14

Analog Style ..... pg. 14

## RHYTHM STEP MODE / Pg. 15

---

Feel ..... pg. 15

Direction ..... pg. 16

Rhythm / Steps ..... pg. 16

Tap Tempo ..... pg. 16

MIDI Toggle Switch ..... pg. 16

Rhythm Step Mode Tweak Menu ..... pg. 17

The Rhythm Step Editor ..... pg. 17

Smoothing Mode..... pg. 18

Shape Preset..... pg. 18

## RHYTHM SHAPE MODE / Pg. 19

---

The Rhythm Editor ..... pg. 20  
Shape Preset ..... pg. 21

## PING PONG MODE / Pg. 22

---

Trigger ..... pg. 22  
Trigger Divider ..... pg. 23  
Type ..... pg. 24  
Cutoff ..... pg. 24  
Gain ..... pg. 24  
Monitor ..... pg. 24  
Analog Style ..... pg. 24

## RANDOM MODE / Pg. 25

---

Random Mode Tweak Menu ..... pg. 25

## RANDOM STEP MODE / Pg. 26

---

## ADDITIONAL INFORMATION / Pg. 27

---

Support / Contact ..... pg. 28



Figure 1: PanMan's Control Panel and Tweak Menu - Rhythm Step Mode

PanMan encompasses the full spectrum of auto-panning effects, combining the coolest features from the coolest classics coupled with more modern processes and Soundtoys panache. PanMan takes the supposedly simple process of pushing audio back and forth in the stereo field, and lifts it to a whole new level. In designing PanMan we painstakingly poked and prodded classic analog auto-panners such as the PanScan, Cyclosonic FS-1, and the Electrospace Spanner to find out just how the parts and pieces produced such peculiar effects.

For example, one of the industry standard auto-panners we studied while creating PanMan was Audio Design's PanScan, which had a feature we wanted to include called the Trigger Divider. The Trigger Divider allows a user to set the number of triggers needed to move to the next pan position. So for instance, you can set the panning effect to move from left to right every third trigger.

After figuring out the science behind their specialness, we focused on where their feature-set fell short. PanMan has been pushed further than any precursor panning plug-in with MIDI sync, dynamic control, automation, and preset storage.

Building upon this idea we created a trigger filter for PanMan, allowing you to choose what frequency range the trigger listens for. PanMan expands upon the features of similar classic gear with a wide range of advanced rhythmic modes giving you truly unprecedented control over every aspect of the plug-in. Set a classic hardware pan shape using the Style control and take it farther than the hardware could, moving the panning back and forth, left to right, locked to MIDI, or by programming

your own rhythm. You can even pan "beyond the speakers" using PanMan's 105 degrees of available offset and up to 210 degrees of modulation.

PanMan brings the most comprehensive and full-featured auto-panning solution to your DAW. Simply put, PanMan allows you to move your audio around dynamically in ways you just can't do with automation. PanMan's included presets give you a wonderful sample of the wide variety of panning effects PanMan can generate. We're confident that you will find PanMan to be, well, absolutely Pantastic!



Figure 2: The PanMan Control Panel - LFO Mode

## INPUT AND OUTPUT LEVEL

The Input and Output level controls are used to either boost or attenuate the input or output of PanMan. The default setting of the controls approximates “unity gain” (what goes in also comes out the same level) and should provide the best overall “normal” sound quality when set to these levels.

The LED-style indicators located beneath the Input and Output knobs provide a visual display of the input and output signal levels. The yellow LED indicates that the signal is 6dB below clipping. The red LED indicates maximum signal level, and possible audible clipping (which you may or may not wish to have as part of your sound).

These controls are particularly useful with the different Analog Style algorithms (found in the Tweak Menus for each mode), allowing you to adjust the amount of saturation and distortion present in PanMan.



Figure 3: Output LED indicating maximum signal level

## COMMON CONTROLS

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The control layout that you will see in PanMan is dependent upon the currently selected modulation mode. Many of PanMan's controls are common to every mode. We'll discuss these common controls first and then breakdown each unique modulation mode (and associated controls) found in PanMan individually.

## OFFSET

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The "Offset" control defines the base pan position. It defaults to 0 degrees (Center), and ranges from -105 degrees to +105 degrees. Note that +/-90 degrees will put your incoming signal completely in the right/left channel, respectively. Going out to 105 degrees on either side gives the effect of pushing the signal "beyond the speaker."

## WIDTH

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The Width control defines how far around the offset the pan position can be modulated. It defaults to 180 degrees, but can also be utilized for the "beyond the speakers" effect with up to 210 degrees of modulation available (which is from -105 to +105). The right combination of Offset and Width will be highly dependent on your source material, and experimentation is recommended. It is worth mentioning that if you set the Offset to say, +90 degrees, and Width to 180, the position of the audio will never go beyond 105 degrees.

## SMOOTHING

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The Smoothing knob controls how smoothly the pan position will transition from one spot to another. Set this knob to 'Hard' if you want abrupt jumps between pan positions, and to 'Soft' if you want softer, more gradual transitions. If a left-to-right or right-to-left direction is selected, smoothing will control how hard the snap-back will be.

## PAN POSITION METER

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The Pan Meter is a collection of red and yellow LEDs that show you the current pan position. The LEDs charge and discharge like real LEDs and will create trails when the pan position moves quickly. The red LEDs indicate the normal range of panning (-90 to +90 degrees). Beyond these lie the yellow LEDs which represent the extended range of PanMan. If you see the meter lighting up the yellow LEDs, that means you are panning beyond the speakers.

Note that there's nothing wrong with panning that far, but if it's not what you want, use the meter to keep your panning inside the red.



Figure 4: The Pan Position Meter

## CHOOSING A MODULATION TYPE/SOURCE

PanMan includes a number of different modulation options selected via a small white button found in the center section of PanMan. When it comes to modulation, the more sources you have, the better! The available modulation modes in PanMan are:

- LFO
- Rhythm Step
- Rhythm Shape
- PingPong
- Random
- Step

The currently selected modulation mode will appear as text above a beige push-button. To change modulation sources, click and hold on the push button below the currently displayed mode. This will bring up a small selectable menu listing the modulation modes. Select the desired mode with your cursor and release the click. You will notice that the name above the button will change as will the control layout of PanMan. Though the button name will change to reflect the selected type of modulation, the function of this button remains constant.

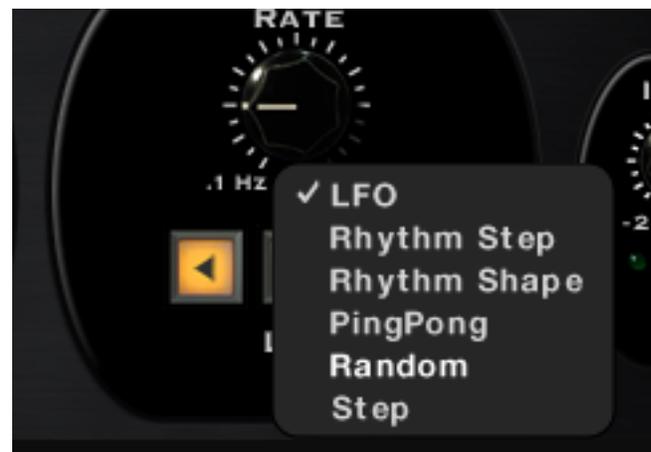


Figure 5: The Modulation Menu

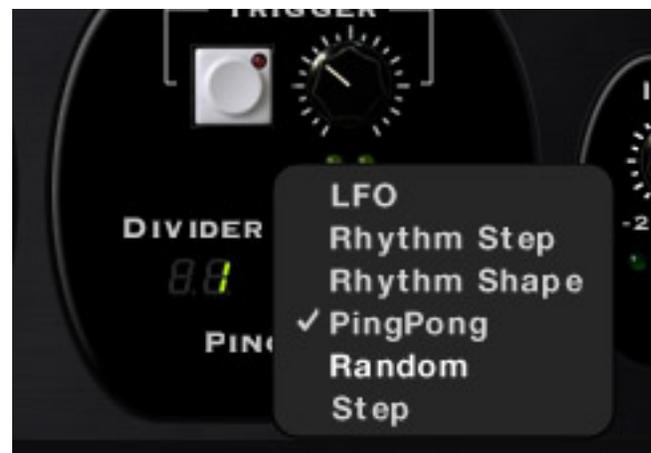


Figure 6: After changing Modulation Modes



Figure 7: LFO Mode Control Panel and Tweak Menu

## LFO MODE

LFO Mode stands for Low Frequency Oscillator Mode. An LFO creates a repeating waveform (usually with a selection of various wave shapes) that oscillates at a rate between 0 and 20Hz. This is why it is referred to as a “Low” frequency oscillator as 20Hz is still considered pretty slow in comparison to most audio signals. LFO Mode modulates the pan position by repeating one of the three basic shapes (pan directions) at the rate you set it to. LFO Mode uses the 3 common controls of Offset, Width, and Smoothing (discussed on page 7).

## RATE

The ‘Rate’ knob controls the frequency of the LFO and is displayed in Hz. The range is from 0.1Hz to 10Hz. A sweep rate of “1 Hertz” (1Hz) means that the LFO modulation will repeat once per second.

## DIRECTION

The direction buttons allow you to select the basic shape that the LFO will repeat. There are three options: Left-to-Right, Back-and-Forth, and Right-to-Left. Each button has an arrow on it that tells you what direction it is. Only one direction can be selected at a time, and the button corresponding to that direction will be illuminated in an amber color.

## LFO MODE TWEAK MENU

For additional LFO dynamics control, the Tweak Button can be pressed (underneath the Input/Output controls) to reveal the slide-out Tweak Menu. PanMan's different modulation modes all have unique Tweak Menu windows based on the parameter options available in each selected mode. These added controls offer complete customizability of the panning functions for each mode. We'll discuss the LFO Mode's Tweak Menu controls starting on the next page.



Figure 8: LFO Mode's Tweak Menu Controls

## THRESHOLD

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The Threshold knob, located at the start of the Tweak menu is central to all other controls as it affects the responsiveness of the other knobs. The Threshold control allows you to define a specific level (as in loudness) that the input must reach before any dynamic processing of the Rate or Depth (as set with those controls) will be implemented. The scale of the Threshold control is in standard 'dB'.

There are two things to keep in mind in regards to the Threshold control:

- 1) As long as the level of the input signal is above the Threshold level, the modulation of Rate and Depth will be active. As soon as the level of the input signal falls below the set Threshold setting, all modulation is turned off and completely de-activated.
- 2) How far the input signal goes above the Threshold setting determines how "deep" the modulation will go (with the maximum available mod depth being defined by the settings of the other controls).

You can think of Threshold as determining how loud the signal must get before the Rate and Depth settings will have an effect once the signal passes the Threshold setting and how much of the modulation will occur. The white markings around the Threshold knob turn red based on the input signal, which makes it really easy to see changes in the level of the input signal and set the Threshold level accordingly.

## ATTACK

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PanMan allows you not only to adjust how much change will occur in the modulation but also how quickly or slowly the Rate and Width will change. We can further increase these variations in modulating the Rate/Width by using the Attack and Release knob settings. Attack is based on time (in milliseconds) with a range of 0ms to 5000ms (5 seconds).

Here's how it works: once the input signal has passed the current setting of the Threshold knob, any changes set by the Rate Mod and Width Mod controls are called into play and will change the Rate or Width accordingly.

What the Attack knob allows you to do is to define how long it will take for the Rate Mod or Width Mod to reach their full modulation amount.

At fast Attack settings, the Rate and Width Mod will go to their full mod setting instantaneously. Increasing the Attack time means that it will take longer for the Rate and Width modulation to reach their full amount. This lets you create smoother and slower changes in the rate and width rather than the immediate and abrupt changes that would occur with a very fast Attack setting. As mentioned, this is dependent on the Threshold setting and how far past the Threshold the signal goes.

The attack and sustain characteristics of the input signal will directly affect how you will want to set the Attack time. If the signal is staccato and quickly moves above and below the Threshold it is likely that you

## ATTACK (continued)

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will not hear the changes in the Rate or Width with slow Attack time settings. The input signal will simply not be above the Threshold setting long enough for the slower attack time to reach its full setting. It is also very important that the sound stay above the Threshold setting for a period equal to the Attack time for the modulation to respond. Utilizing varied attack times that are either very responsive to, or that are slower than the changes of the input signal, allows for a wide variety of possible alterations to the panning effect.

## RELEASE

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The Release knob works in a similar fashion to the Attack knob but determines how quickly or slowly the Rate or Depth Mod will return to their 'normal' settings once the input signal has dropped below the Threshold. Release is based on time (in milliseconds) with a range from 0ms to 5000ms (5 seconds).

The way the level of the input signal changes will likely play a big part in how you will want to set the Release time. If you want the modulation changes to track a quickly changing input signal you will likely want to have faster Release (and Attack) times. If you want the Depth and Rate Mod to change more smoothly you can increase the Release (and/or Attack) times accordingly so they are slower than the rate of change in the level of the incoming signal.

Remember that the Threshold setting interacts with and has a direct effect on when the Rate and Depth modulation will begin to occur and by how much (based on how far above the Threshold the signal goes). How the Attack and Release times will be set will most often depend on the type of response you want and the interplay between your source audio and the set threshold.

## MODE

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The two Envelope Mode options determine how the underlying envelope follower, Threshold, Attack and Release settings respond and interact with each other. There are two Mode settings: 'Env' and 'Gate'.

When 'Env' is selected, the Rate and Depth modulation will respond to the level of the input signal. Louder signals will produce more modulation, and quieter signals will produce less modulation. Any input below the Threshold will produce no modulation.

When set to the 'Gate' setting, the amount of Rate or Depth Mod is no longer dependent on how far above the Threshold setting the signal goes and instead responds more like an on/off switch (or Gate). As soon as the input signal goes above the Threshold setting, the Rate and/or Depth Mod will be driven to its maximum settings at the rate determined by the Attack knob.

## MODE (continued)

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In Gate mode, the depth will remain at its full value (based on the Rate Mod and Depth Mod controls) and will be “pinged” at their full value for as long as the input signal is above the Threshold. This can greatly affect how the Rate and Depth Mod respond and it can be quite a bit different than in Env mode. Though both settings provide a very different response from each other, both modes are quite useful.

## OFFSET MOD

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Offset Mod controls the amount of modulation sent from the dynamics controls to the panning offset. In essence, this control allows you to control where your offset moves based on the input signal. It's like a dynamically controlled pan for the auto-pan. Wrap your brain around that!

## WIDTH MOD

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The Width Mod is also a bi-polar control and allows you to dynamically increase or decrease the width of the pan effect, again, based on the setting of this knob as well as the set Threshold as previously discussed.

When set straight up the Width Mod it is at the 'zero' position. As you turn the knob clockwise (towards “Wide”) the width will increase. As you turn the knob counter-clockwise (towards “Slim”) the width will decrease and the stereo image will be less apparent, as the sound is centered.

You can determine how much you wish to add to the width by setting the knob towards the 'Max' setting. Width Mod is in units of degrees; a setting of +45 degrees will add 45 degrees of width to your panning. Keep in mind that the maximum widths of +/- 105 degrees are always enforced. If Width on the front panel is set to maximum (105 degrees), you cannot add any more Width Mod. Similarly, if Width is set to 0 degrees, you can't take any more away.

## RATE MOD

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The Rate Mod knob allows you to dynamically increase (or decrease) the rate of the LFO or Rhythm based on the level of the input signal, and the Threshold setting as discussed above. The modulation is either added or subtracted from the basic Rate as set on the front panel. The setting of this knob determines the maximum amount of rate modulation that can occur.

The Rate Mod knob is bi-polar; when set straight up it is at the 'zero' position. As you turn the knob clockwise the rate will increase, or if turned counter-clockwise the rate will decrease.

The Rate Mod scale is in octaves and is based on the standard frequency scale; a setting of '1.00' will provide a doubling of the speed (x2), a setting of '2.00' will double the rate again (x4) and so forth. So a setting of '3.00' is equal to a three-octave increase in the rate (x9). The same approach is used as you turn the knob counter clockwise, except that the rate is decreased as opposed to being sped up.

It is also important to note that you can still modulate the Rate even if PanMan is synced to an incoming MIDI clock. What happens is the rate is driven out of sync and sped up or down but once the mod level drops back to it's 'normal' or base level PanMan will grab hold again and dance in sync with the incoming MIDI clock.

## ANALOG STYLE

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There are 7 different available Analog Style algorithms that determine the saturation characteristics of PanMan. The different styles impart a certain amount of distortion to the signal, relative to the style selected, at all signal levels. The Analog Style options are as follows:

- **Clean** - Maximum non-distorted range, with fairly hard clipping
- **Fat** - Smooth low-frequency distortion
- **Squash** - Similar to above but more compressed
- **Dirt** - Smooth broadband saturation
- **Crunch** - Exaggerated high-end clipping
- **Shred** - Lots of asymmetrical clipping
- **Pump** - Extreme pumping compression



Figure 9: Main Control Layout in Rhythm Step Mode

## RHYTHM STEP MODE

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Rhythm Step mode allows you to “step” through various positions in the stereo field, changing to a new position at every rhythmic interval. You can use the provided controls to create a standard pattern automatically, or you can use the Rhythm Step Editor (discussed on page 18) to create custom panning rhythms. In addition to the common controls of Offset, Width, and Smoothing found in LFO Mode, Rhythm Step Mode also adds in the “Feel” control.

## FEEL

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The Feel knob shifts your whole rhythm pattern in time, to get it “in the pocket” to where it sounds best in your project, either ahead of or be-

hind the beat. The right side of the dial is the “Drag” side, where points in the pattern will be increasingly shifted to the right, behind the beat. Turning the dial counter-clockwise to the “Rush” side, each point in the pattern will be shifted left, before the beat.

If any of your points are rushed or dragged before the beginning or after the end of the pattern, don’t fret - they will wrap around and come in at the end or the beginning. This keeps your pattern the same shape no matter what. Essentially, you can think of the Feel control as adjusting the phase of your pattern.

## DIRECTION

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Just like in LFO Mode, direction buttons allow you to select the basic shape that the pattern will repeat. There are three options: Left-to-Right, Back-and-Forth, and Right-to-Left. Each button has an arrow on it that tells you what direction it is. Only one direction can be selected at a time, and the button corresponding to that direction will be illuminated in an amber color.

## RHYTHM / STEPS

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The Rhythm control lets you select a rhythmic transition rate. This defines the rate at which the pan position will change. For example, if you select “1/2 note”, PanMan will move to the next pan position every half note. Clicking on this control will bring up a menu that lets you select from a variety of beat lengths. You can also create custom patterns using the Rhythm Step Editor found in the Tweak Menu (which we will begin discussing on the next page).

Note that when you select or create a custom rhythm, “Custom” will be displayed, or the name of the custom rhythm if previously entered. When a custom rhythm is selected, the Direction and Step controls cease to operate, as they are controlled by the specified pattern.

The Steps selection menu sets the number of steps in your pattern before the sequence repeats.

## TAP TEMPO

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Tap Tempo does what it says; start tapping on the grey button and it will determine the BPM tempo of your tapping. This control is useful not only in determining the BPM for live tracks not recorded to a click track but also for finding the appropriate “feel” for your modulation. Even on material that has been strictly grid-aligned, sometimes panning slightly off the grid adds a more organic feel to a track.

## MIDI TOGGLE SWITCH

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When the MIDI Toggle Switch (located next to Tap Tempo) is in the down or off position the rate of the panning effect is determined by the Rate knob setting. When the MIDI switch is engaged, the incoming MIDI clock takes over as the master rate control.



Figure 10: Rhythm Step Mode's Tweak Menu

## RHYTHM STEP MODE TWEAK MENU

The controls at the very top of the Rhythm Step Mode Tweak Menu are identical to those found in the LFO Mode Tweak Menu. If you are unfamiliar with those controls, they are described in detail back on pages 13-16. Rhythm Step Mode adds the Rhythm Step Editor to the Tweak Menu, a very powerful but intuitive tool for creating your own custom auto-panning patterns.

## THE RHYTHM STEP EDITOR

The Rhythm Step Editor section allows you to create completely unique rhythm patterns for PanMan. In the main editor window (with the green

pattern lines) You can move, add, or delete points (pan positions) to create complex pan patterns. Added points are quantized to rhythmic beats shown by the grid. This allows you to create a custom pattern of pan positions that work in concert with the rhythm of your source.

To move a point, simply click and drag it. Dragging up/down will change the pan position of that point, and dragging left/right will change the time position. Points will automatically snap to rhythmic subdivisions. You can also move a point without this feature (in other words, not snapped to the grid) utilizing Command-click (ALT-click for Windows) and dragging. Note that two points cannot exist at the same time, so if you try to drop a point where another point exists, it will simply return to wherever you moved it from.

## THE RHYTHM STEP EDITOR (continued)

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To delete a point, simply Option-click (right click for Windows) the point and it will be removed.

To add a new point, simply click on any vertical grid line that doesn't already have a point on it and one will appear where you clicked. You can then move and adjust it to the exact place and time that you'd like.

There are four modifier menus that are located directly beneath the editor window. The first two (Num Bars and Beats/Bar) can be thought of as setting up your rhythm to match the song. They determine the number of bars the pattern should entail and how many beats per bar.

The next menu, Bar, is used to select one bar at a time (for patterns that are longer than one bar) to edit in the editor window. The Grid selection menu determines the grid spacing of the Rhythm Step Editor.

## SMOOTHING MODE

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The Smoothing Mode selection menu determines the Smoothing Mode from one of 5 choices. The choice of Smoothing Mode has a very audible effect on the transitions between points in the Editor. The Smoothing Modes available are as follows:

**Linear:** Points are connected with a straight line.

**Sine:** Produces a sinusoidal-like waveform, which is very smooth.

**Exp:** This is an abbreviation for "Exponential". Produces a "scooped", curved waveform where the curve rises quickly at first and then levels off slowly.

**Sym:** Produces a curved shape that is even and symmetrical.

**Rev:** This is an abbreviation for "Reverse Exponential." Produces the opposite of "Exp", where the waveform rises slowly at first, then faster and faster until it reaches the next point.

## SHAPE PRESET

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The Shape Preset selection menu allows for pattern preset (factory as well as user-defined) files to be loaded and also allows for new patterns to be saved by clicking on the retro floppy disk "Save" icon.



Figure 11: Main Control Layout in Rhythm Shape Mode

## RHYTHM SHAPE MODE

Rhythm Shape Mode is a more sophisticated version of LFO Mode and provides the means to sync to MIDI tempo. Using this mode allows you to easily produce complex panning patterns that can be programmed in musical and rhythmic ways. You can select the tempo (either manually or synced to MIDI) and direction, and then create complex repetitions of your basic shape with the rhythm editor.

The Direction buttons are used to select a panning direction, just as in LFO Mode. This determines the basic shape upon which you can build your rhythm. The buttons, in left-to-right order, correspond to the following direction types: Ramp-Down, Triangle, and Ramp-Up.

Rhythm Shape Mode uses the same Groove, Offset, Width, and Smoothing controls that are used in Rhythm Step Mode. If you need a refresher on any of those controls take a look back to pages 7 and 15 of this manual.

The real fun in Rhythm Shape Mode begins once we take a look at the Rhythm Editor found in the Tweak Menu. So click on the Tweak Button, scroll to the next page, and let's get started!



Figure 12: Rhythm Shape Mode's Tweak Menu

## THE RHYTHM EDITOR

In addition to the preset rhythms provided, PanMan includes a powerful Rhythm Editor feature that allows you to create your own rhythm patterns. To access the Rhythm Editor, select the 'Edit...' option from the Rhythm menu or expand the slide-out Tweak Menu.

The Rhythm Editor works a bit like a simple drum machine. By default, the basic rhythm pattern is one bar long and is shown in the rhythm display. For each selected event in the rhythm pattern, one entire cycle of the LFO Shape will be triggered and played.

Editing rhythm shapes is very easy in the editor:

**To add an event in a specific location** simply click in the editor at the desired location and a new event will be added to the pattern.

**To remove an event**, just click on the event you wish to remove and it will be deleted.

**To change event width or duration**, option-click or shift-click and drag on any existing event. To change the width with the bottom (Left side) anchored or to shorten the duration, option-click and drag the event; to change the width with the top (Right side) anchored, shift-click and drag the event. Holding down option and shift while dragging will reposition the event without changing the width.

## THE RHYTHM EDITOR (continued)

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Much like in Rhythm Step Mode, there are four modifier menus directly beneath the editor window. **Num Bars** and **Beats/Bar** determines the number of bars the pattern should entail as well as how many beats there should be per bar. The next selection menu, **Bar**, is used to select one bar at a time (for patterns that are longer than one bar) to edit in the editor window. And finally, the **Grid** selection menu determines the grid spacing of the Rhythm Shape Editor.

## RHYTHM PRESET

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The Rhythm Preset selection menu allows for pattern preset (factory as well as user-defined) files to be loaded and also allows for new patterns to be saved by clicking on the retro floppy disk "Save" icon.



Figure 13: Control Layout in Ping Pong Mode

## PING PONG MODE

Ping Pong Mode is a very fun pan mode that alternates between pan positions every time the source audio reaches a set level. The common controls of Offset, Width, and Smoothing are found on the left side of the control panel. By default the controls are set so that the two positions are hard right and hard left, but you can adjust these so that PanMan bounces back and forth between any two positions in the stereo spectrum.

## TRIGGER

Ping Pong Mode introduces two new controls to the control panel that we haven't yet discussed; the Trigger and the Trigger Divider.

The best way to approach the Trigger variable knob is to think of it much like the Threshold control (they look pretty similar, right?). Like Threshold, the real-time audio level will light up red in the white notches surrounding the knob. You can set the Trigger level by turning the control's pointer to the threshold where you would like a pan transition to occur, based on the incoming audio.

The button next to the threshold knob is the Manual Trigger button. Pressing this button will cause a trigger event. Note that the audio must be below the threshold for a Manual Trigger event to occur. The Manual Trigger can be automated to be activated at certain points, or

## TRIGGER (continued)

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depending on your DAW, can be programmed to be activated using a MIDI controller.

To turn off audio based triggering (if you're using MIDI or manual triggering), set the threshold of the Trigger knob all the way up.

## TRIGGER DIVIDER

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The Trigger Divider knob allows you to set the number of triggers that you want to occur before a transition is activated. The LCD-style display shows what number the divider is currently set to, and each individual LED around the knob shows what the count is currently at. When this is set to 1, every trigger will cause a transition. When it is set to 2, every second trigger will cause a transition, and so on. You can set the trigger divider from 1 all the way to 12.

In Figure 14 to the right, the divider set to 8 and the current count (how many triggers have already occurred) is 4.

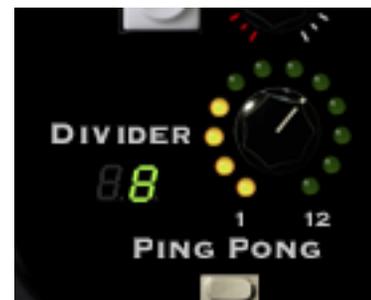


Figure 14: Trigger Divider - Halfway There!

Ping Pong Mode is especially suited for percussive sources or tracks with a lot of transients. This mode also works very well to enhance rhythmic effects such as those created in Tremolator, EchoBoy, or Filter Freak. For example, we can set a rhythmic, tempo-locked effect in Tremolator for guitar and using Ping Pong mode (with some automation) have the tremolo begin to rhythmically pan hard left and right at key breaks in the song.

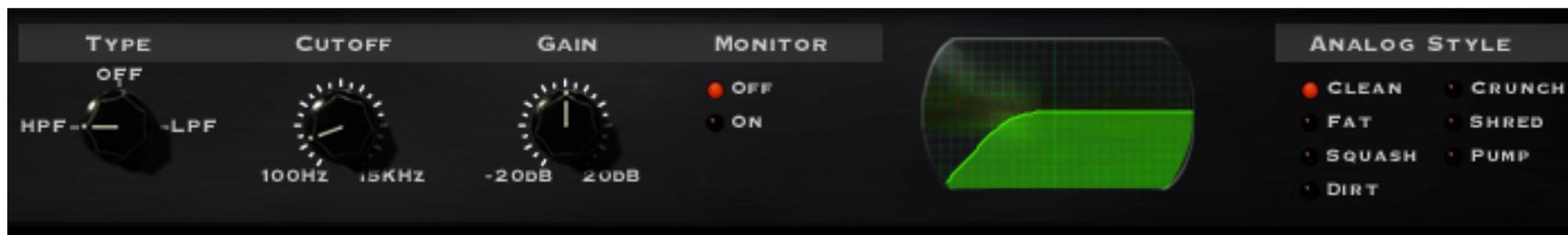


Figure 15: Control Layout in Ping Pong Mode

## TYPE

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The Ping Pong Mode Tweak Menu adds additional controls to fine tune how the trigger responds to audio by adding filter controls. Using the Type knob we can select what filter to apply (highpass, lowpass, or no filter) in order to exclude frequency ranges from triggering the pan events. This is especially helpful for preventing high-energy bass frequencies from activating the trigger. A graphical representation of the current filter is found in between the Monitor and Analog Style controls.

## CUTOFF

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The Cutoff control allows you to specify at what frequency the selected filter to the level detection begins. This control ranges from 100Hz all the way up to 15kHz.

## GAIN

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The Gain control helps to compensate for volume changes (and perceived volume changes) that result from engaging the filter on your audio. This control can be very helpful in fine tuning your audio in relation to the Trigger threshold without having to continually adjust the threshold level. +/- 20db is available here, so there is plenty of room to work with.

## MONITOR

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Turning the Monitor option on allows you to hear the source audio with filters applied, but without the panning effect engaged.

## ANALOG STYLE

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See page 14.



Figure 16: Random Mode's Control Panel and Tweak Menu

## RANDOM MODE

Random mode is the same basic concept as Ping Pong mode but pans to new, random positions at rhythmic intervals. It's a pretty simple mode but sounds great on just about everything.

Simply use the Rhythm selector and the Tempo control to choose a beat length. Every beat, PanMan will pan to a new position. Use Smoothing to control how hard the jump is, and Offset and Width to control the range of possible positions. No tweak here. Just pure and simple random panning.

## RANDOM MODE TWEAK MENU

Did we mention "simple" in the last paragraph? Well, there's not a whole lot to tweak in Random Mode as the randomized, rhythmic panning functions embody the "Automatic" in Rhythmic Automatic Panner.

The Tweak Menu in Random Mode does include the Analog Style option however, as the different saturation types are still very useful in Random Mode. A refresher of what character each style imparts on audio signals can be found back on page 14.



Figure 17: Step Mode's Control Panel and Tweak Menu

## RANDOM STEP MODE

Random Step mode allows you to pan to new, random positions just like Random Mode, but trigger-based instead of being based on rhythm. Since we are using the Trigger functions again, the control and Tweak Menu layout mirrors that of Ping Pong Mode (discussed starting back on page 22).

Much like in Ping Pong Mode, the input signal is what determines the movement of the panning functions. Finding the right balance with the Trigger threshold is key. Remember that you can utilize the filter in the Tweak Menu to carve out frequencies that would influence trigger pan transitions. The Monitor control allows you to hear the output of the trigger filter without the panning effect engaged.

## SUPPORT INFORMATION

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Now that you've taken the time to learn all about PanMan, have fun, experiment, and make greatness! If our plug-ins helped you take your production to the next level, let us know, we'd love to hear from you and what you were able to create with our software.

If along the way however you should run into any hiccups or anything unexpected, we offer free technical support for all registered users.

Our FAQ contains many helpful answers. you can find it at:

**<http://support.soundtoys.com>**

If you need further support you can find our Customer Support contact form at:

**<https://www.soundtoys.com/forms/support>**

You can also reach our support staff by e-mail at:

**[support@soundtoys.com](mailto:support@soundtoys.com)**

If neither of those options work for you, our office can be reached via telephone at:

**1-800-COOL-EFX**

*Please* have the following information available to help assist our support team:

- The product version and serial number
- The version number of your audio system (e.g ProTools 11.2.1, Cubase 8.0.5, Logic 10.2.0, Cakewalk Sonar X3)
- Your interface/hardware (e.g. Mbox Pro, Apogee Quartet, RME Fireface, etc.)
- Your computer and operating system info (e.g. MacPro OS X 10.9.5, Windows 7 SP1, Windows 8.1, etc.)
- A detailed description of the problem

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