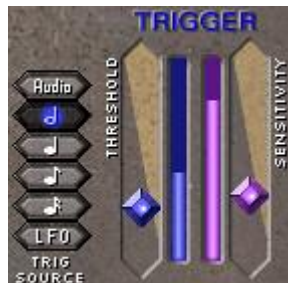


Chopan

What is Chopan?

Chopan is an auto-pan effect which can trigger automatically as each note is played.

Trigger Source



Chopan can either trigger from audio, or in time with the tempo as defined by your vst host. Select what you want using the "Trigger Source" switch. "Audio" means that the panning will be triggered by the notes on the audio track (or as you play them, if you are using your computer to process live sound).

The note value buttons on the "Trigger Source" switch can be used to make the panning trigger at different speeds, try it out using the first preset (Ping pong) to get the idea. When the "Quarter Note" button is pressed triggering will happen on every beat.

While we ensured that Chopan works with all the well known vst hosts, it's possible that a host doesn't provide all the necessary information to allow Chopan to sync to the hosts tempo. In this case you'll need to use the audio trigger.

When "LFO" is the selected Trigger Source you'll get a trigger whenever the Modulation LFO passes through center. That's 2 times for each cycle of the LFO.

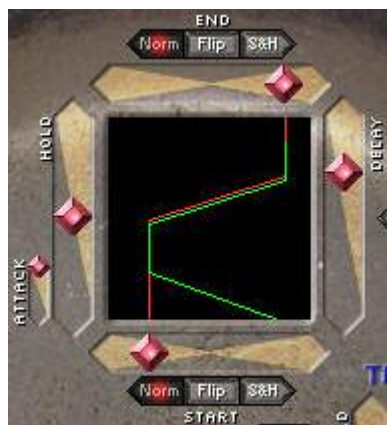
You can manually control the trigger rate by setting Trigger Source to "LFO" and LFO Freq Source to "Fader". Then use the "LFO Frequency" fader in the Modulation section. When you try this trick starting from our Ping-Pong preset you get the harsh sound of "square wave" panning.

Audio Trigger

There are two controls that govern the way Chopan responds to audio. "Sensitivity" is our Level Independent Attack Detector (LIAD) which can pick out new notes as they are played, even if the volume varies. "Threshold", on the other hand, is volume dependent. Both controls have a useful meter next to them. For most sounds the "Sensitivity" should be about a third of the way up, and "Threshold" at zero. If you don't get the right number of triggers, first put "Threshold" to zero, then set "Sensitivity" as high as it will go without missing any of the notes that you want. It's then possible to raise "Threshold" a bit if you're still getting triggers that you don't want.

If you only want to trigger on loud sounds then "Threshold" is the control to use. For instance it's usually possible to pick out the snare beat from a drum track, as the snare is often the loudest drum.

Start, End, Attack, Hold, Decay



Overview (for the technically minded)

There are 5 faders around the central display, which shows the actually pan position as a green line. The red line shows the effect of the "Start", "End", "Hold" and "Decay" faders, and that is the path that the pan will usually follow if "Attack" and "Envelope Mod" are at zero.

When a trigger is detected:-

1. Pan moves to the position of "Start" at a rate governed by "Attack".
2. It stays there for a time given by "Hold".
3. It moves towards the position of "End" at a rate governed by "Decay".

HowTo (for the "hands-on" approach)

Put "Attack" and "Hold" to zero, and set up the Trigger if necessary, make sure "Mix" is full up so you can hear what's going on. Put the "Start" fader full left, and "End" full right. The 3 way switches above and below those two faders should both be set to "Norm". Now play with the "Decay" control. Each note will pan from left to right, and how you set "Decay" varies the speed at which it happens. Increase "Hold" a bit, and the note will stay at "Start" for a while before panning. Once you're familiar with this, try putting the "Attack" up and you'll find that the note sweeps to the "Start" position before going through Hold and Decay.

Start = End Switch



Turn this switch on if you want Start and End to always move together. Turning on "Start=End" also sets both Start and End to the midpoint.

A double click on the Slope switch has no effect other than to center both Start and End.

Start Mode and End Mode



The 3 way switches next to the Start and End faders can change the effect quite dramatically.

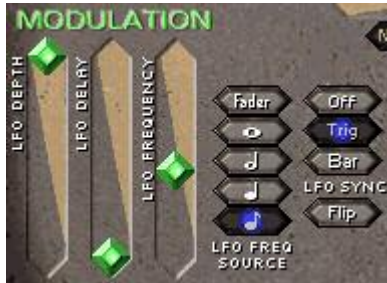
- **Norm.** No change.
- **Flip.** On every other trigger, the pan position is reversed. So, for instance, if the Start fader is full right, and the Start Mode Switch is set to "Flip" then alternate notes are panned as if Start was full left. The effect of Flip is shown on the main display by a faint orange line, which shows the alternate pan.
- **S&H.** (Sample and Hold). On every trigger, the pan position is taken from the current value of the Modulation LFO. This is affected by the "LFO Depth" fader, when LFO Depth is full up the possible range of values always goes from full left to full right, when it's not full up the values stay nearer the position of the relevant Start or End fader.

The Pan Mode switches can be used in any combination.

Note: when either S&H setting is used, the normal function of the Modulation LFO is switched off.

Note: for certain trigger combinations taking a sample and hold from the LFO would be pointless, for instance if the trigger and lfo are both synchronised to the same rate (you'd always get the same value!). In these cases the S&H modulation is replaced by a randomly generated value. The "LFO Depth" fader still controls the amount of random variation.

Modulation (Low Frequency Oscillator)



In addition to the triggered panning described above, Chopan can also do regular auto-panning. The pans the sound from side to side at a regular speed at a rate controlled by the "Frequency" fader. At slow speeds the sound wanders from side to side, while faster rates sound more like tremolo. The depth of the effect is altered by the "Mod" fader.

The "Delay" fader allows the LFO pan effect to "fade in" after a trigger at a controllable rate. When this fader is full down there is no delay at all. Try the "LFO with Delay" preset to hear this in action.

The "LFO sync" switch controls when the LFO is reset to it's start position.

- **Off.** LFO runs free.
- **Trig.** LFO is reset every trigger.
- **Bar.** LFO is reset every bar as defined by your VST host.

Usually, the LFO resets to it's zero position, and starts to pan to the right. If you get bored with that, then there's another switch:

- **Flip.** With "Flip" turned on the direction that LFO heads after reset will alternate between left and right. When you turn off "Flip" the current direction will be maintained. With "Flip" turned off the direction will be either always left, or always right. If it's not the direction you want, you can double click "Flip" to change it.

The LFO reset can sometimes produce a sudden change in pan, which may cause a small hiccup in the sound. The "Attack" control can be increased in order to smooth this out.

In order to match the speed of the LFO to the tempo as defined by your vst host you can use the "LFO Freq. Source" switch. The different note values will give you different panning speeds, all of them related to the tempo of the music, for instance the Quarter Note setting will cause the lfo to pan from one side to the other once every beat. Depending on the accuracy of the information that your host provides, the lfo may drift slightly against the tempo, unless, of course, the "LFO Sync" is set to "Bar".

Mix



"Center Vol". This has no effect when sound is hard panned left or right, but changes the volume when the sound is center panned. At a third of the way up the fader gives an even volume across the pan for most signals, and this is usually the best setting. Panning invariably causes a drop in overall volume, if you like to work with sounds that are normalised to maximum volume, and you wish to preserve as much of that volume as possible, you should put this fader to maximum.

At minimum the sound at either side is emphasized. This can sound good when using the LFO.

"Wet Dry". Dry is the input signal, wet is the panned signal. To gradually reduce the amount of

panning, move the fader down towards "Dry". Usually you'll want this control on "Wet", for maximum effect.

When you put a stereo input into Chopitch the default setting is for it to be mixed to mono. When you switch on "Stereo" (the button at the underneath the mix faders) Chopan will no longer mix the input channels together, it will operate like a balance control.

BPM Tempo Display.



Most VST hosts, and all the main ones, can provide information about the current tempo. Some, like Plogue Bidule, offer comprehensive tempo syncing options. Chopan checks for this, and then displays the current BPM.

If there's no BPM displayed then either:-

- No audio has passed through the plug after being opened. BPM will be displayed when it starts.
- You need to set up your host for sync.
- Your host does not provide the full range of Tempo and Time Signature information that chopan needs.

Presets

The 8 icons at the bottom right of the plug-in are presets. These are designed to show the wide number of sounds possible with Chopitch, and are good starting points for creating your own sounds. You may need to alter the "Sensitivity" and "Threshold" controls to get the best effect.

- **Ping-Pong**



Sounds jump from left to right on each note. Try putting up the Attack fader. Try different settings of the Trig Source switch if you want to sync to the host tempo.

- **Cross Pans**



Like Ping-Pong, but sweeping from side to side. Adjust Decay and Hold to suit the music.

- **Spread from Center**



Sound always starts off center panned, but then moves alternately left or right. For this sound we put Center Vol up full as this is a good way to introduce panning without making a beat sound quieter. By varying Threshold you can pick how much of a beat stays central. For a typical drum beat it should be possible to get kick and snare central, but have any off-beat hi-hats panning from side to side.

- **Attack Decay**



Each note pans quickly from right to left and back again.

- **LFO**



The low frequency oscillator pans the sound continuously from side to side. Try varying the LFO Frequency.

- **LFO with Delay**



The start of the note is unaffected, but as it dies away the LFO gives a tremolo pan effect. The LFO Delay fader controls how fast the tremolo comes in.

- **Snare to Right**



The loudest sounds are picked out, and sent to the right speaker, while everything else stays on the left. Set Threshold so it works how you like. In most drum beats the snare is the loudest sound.

- **Random**



Each note pans to a different position. The LFO Frequency can be changed to produce different patterns. If you're playing a loop, and want the pan patterns to repeat, then try Syncing the LFO to the host, or to trigger.

Please don't think for a minute that you should stick to our suggested uses for these presets, try them on anything...and use them as a basis for your own sonic experiments.

Have fun!