MIDISYNC

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MIDISYNC is a MIDI clock synchronisation utility module for Voltage Modular that can be used in a number of ways.

MIDISYNC generates MIDI clock messages from CV sync (96 PPQ) or from its own internal clock and generates MIDI play / stop transport messages, either from CV or its own UI.

MIDISYNC has a handy 1/4, 1/8 or 1/16 note CV trigger out which could be used as a click track or to drive a sequencer.

MIDISYNC's internal clock also has an optional drift control, but rest assured, when drift is set to zero, it is very accurate!

Setup is fairly straightforward:

Select your SYNC SOURCE from HOST, INTERNAL or MIDI depending on the application. Note that if you're using multiple MIDISYNC modules in your project, you can synchronise them by chaining them together using the MIDI IN / OUT connections.

If your SYNC SOURCE is HOST, connect a 96 PPQ trigger out to the SYNC input. This will be the Voltage Modular SYNC OUT jack in most cases. You can also connect transport triggers via the PLAY and STOP jacks if you want to generate MIDI transport messages.

Please note that MIDISYNC does not do anything special other than generate the appropriate MIDI messages for play and stop so it's up to the receiving module to handle playing and stopping.

Connect the module you're controlling to the MIDI OUT jack. Please note that MIDISYNC works at 96 PPQ throughout - it DOES NOT use the ancient 24 PPQ original MIDI spec.

You can also connect MIDI from the host (or another module) to the MIDI IN and MIDISYNC will pass on all incoming messages, acting as a MIDI THRU, but note that MIDI clock will be ignored if the SYNC SOURCE is not MIDI.

The TEMPO section has a display accurate to 1/100th of a BPM updated every 1/4 note or when the large tempo control is changed when using the internal clock. Please note this control is disabled when using CV or MIDI sync. If you notice slight fluctuations in the tempo this may be due to tiny rounding errors at the sample level - MIDISYNC does its best to interpret the tempo accurately and adjusts for these errors.

The DRIFT control applies to the internal clock only. Drift can be applied to the base tempo up to +/- 10 BPM depending on the SMF (slow / medium / fast) switch setting. For example, with a tempo of 120 BPM and DRIFT set to 1, the tempo will vary between 119 and 121 every 10 seconds (F), 30 seconds (M) or 60 seconds (S). Please note that these numbers aren't super accurate as the drift LFO itself also drifts!

The TRIG OUT generates a +5.0V single frame trigger on the note length set by the switch - 1/4 (beat), 1/8 or 1/16 note.

The TRANSPORT section allows you to manually generate MIDI play and stop messages and the button will toggle between play / stop and reset the internal clock counters and any connected MIDISYNC modules via MIDI. The transport button also accepts a CV trigger input via CV IN.

Finally, various LEDs will light up to help you see what's going on!

We hope that MIDISYNC helps keep your MIDI in SYNC!