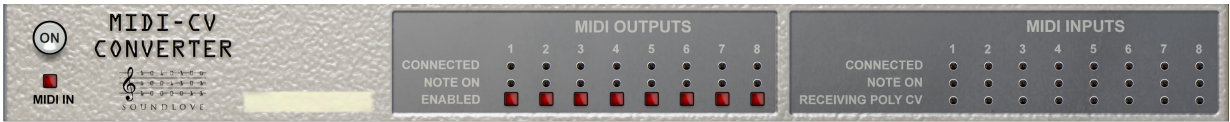
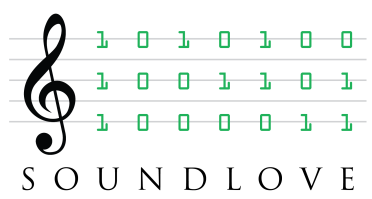


MIDI-CV CONVERTER



Player Utility for Propellerhead Reason
Version 1.0.0



MIDI-CV CONVERTER

MIDI-CV Converter is a utility device that allows you to send note information between different Player stacks. It also makes it trivial to send pitch+gate information from a CV utility to any location in a Player stack, or to send pitch+gate information from anywhere in a Player stack to a CV utility.

You can use a single *MIDI-CV Converter* instance to live-direct your keyboard notes to your choice of up to 8 different Instruments as you play, either via Remote™ or via sequencer automation. In other words, you can switch between complex sounds very easily while you play, without having to browse through sequencer tracks or the rack.

Another great use of *MIDI-CV Converter* is to create “noodles” where playing a single note results in whole sequences of notes with different sounds and textures.

POLYPHONIC VS. MONOPHONIC CV

MIDI-CV Converter uses CV signals to send and receive note information. Reason's standard pitch+gate CV signals are monophonic in the sense that a gate CV socket can only transmit or receive information about a single note at a time. This means that some combinations of note state changes are difficult or impossible to transmit.

To alleviate this situation, one of the Rack Extension developers (Blamsoft) has created a polyphonic CV standard that allows transmission of multiple simultaneous gate values through a single CV socket. *MIDI-CV Converter* is configured to use polyphonic CV by default but you can easily set it to use the Reason CV standard if you like, using a switch on the back panel.

NOTE: Since the two CV standards are incompatible, you can only transmit polyphonic CV to a “polyphonic CV aware” device. If you transmit polyphonic CV to a device that expects monophonic CV, the results will likely be unpredictable nonsense.

NOTE: Even though the polyphonic CV standard keeps track of multiple notes, it can still only transmit two note state changes per audio batch. This means that if you play a chord, *MIDI-CV Converter* will introduce a slight delay (~0.75ms at 44.1 kHz sample rate) for each consecutive note in the chord. (The delay for the monophonic CV option is ~1.5ms at 44.1kHz.)

NOTE: CV signals are processed at batch rate (~1.5 ms at 44.1 kHz sample rate) and MIDI input to players are processed at audio rate (that is, the sample rate). This means that it is theoretically possible to end up in situations where note state changes arrive at a *MIDI-CV Converter* device in “backwards” order. In a worst-case scenario, this can lead to hanging notes. To avoid this, don't create “feedback loops” between Player stacks. An example of such a loop is if you have one Player stack that outputs notes to a second Player stack, and that second stack outputs notes back to the first.

FRONT PANEL



The controls on the front panel are fairly straightforward.

The ON button enables and disables the device, just like other Players.

When the MIDI IN button is enabled, the device will listen to note events from above it in the Player stack. When the button is disabled, the device will only output note events that it receives via CV.

The MIDI OUTPUTS section contains information about what *MIDI-CV Converter* is sending to other devices. The first row of lamps indicates whether the CV outputs are connected or not. The NOTE ON lamps indicate whether the device is sending data to the individual CV outputs. The ENABLED buttons allow you to turn on and off the data stream dynamically for each CV output.

The MIDI INPUTS section contains information about what *MIDI-CV Converter* is receiving from other devices. The first row of lamps indicates whether the CV inputs are connected or not. The NOTE ON lamps indicate whether the device is receiving data from the individual CV outputs. The RECEIVING POLY CV lamps indicate whether the device has detected polyphonic CV on the individual CV inputs.

BACK PANEL



The back panel contains the CV output and input pairs. Each pair consists of a GATE and a NOTE socket. These have to be connected to the corresponding GATE and NOTE sockets of the devices you are connecting to.

The CV OUT switch allows you to force *MIDI-CV Converter* to output monophonic CV data (by flipping it to the MONO setting). The setting affects all outputs. The device is able to distinguish between polyphonic and monophonic data on the inputs automatically.

NOTE: Monophonic CV output can be sent directly to the standard note/gate pair of an Instrument devices, if you like.

A NOTE ON MIDI PERFORMANCE DATA

Due to the current design of the Rack Extension SDK, it is impossible for Player devices to output MIDI performance data, such as pitch bend, aftertouch, and expression (they can receive it, though).

As a result, *MIDI-CV Converter* cannot transmit pitch bend and other MIDI performance data to other devices.

MIDI CC TABLE

19	Player On/Off
39	MIDI IN enable/disable
40	Output 1 enable/disable
41	Output 2 enable/disable
42	Output 3 enable/disable
43	Output 4 enable/disable
44	Output 5 enable/disable
45	Output 6 enable/disable
46	Output 7 enable/disable
47	Output 8 enable/disable

REMOTE(TM) NAMES

MIDI	MIDI IN enable/disable
OUT1	Output 1 enable/disable
OUT2	Output 2 enable/disable
OUT3	Output 3 enable/disable
OUT4	Output 4 enable/disable
OUT5	Output 5 enable/disable
OUT6	Output 6 enable/disable
OUT7	Output 7 enable/disable
OUT8	Output 8 enable/disable