solidArp *V0.3.0* User Manual

solidArp is a powerful arppegiator that is a little different from others.

In Random mode *solidArp* will make sure that the sequence generate - while indeed random - is stable. If the midi data doesn't change during successive playbacks, the sequences generated will not change.

DAW Setup

If a DAW does not appear below, it has not been tested.

Reaper 6,7

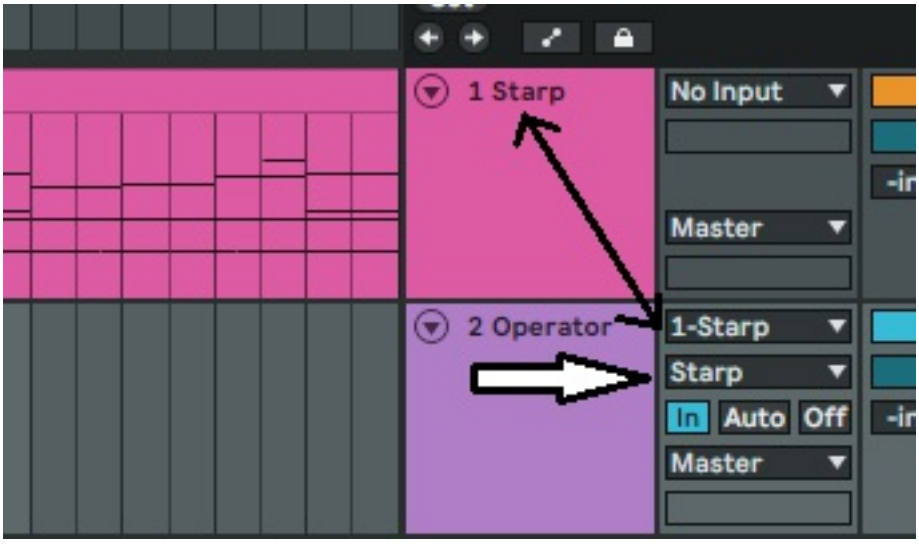
Put it in the Track FX list ahead of the synth.

Ableton Live 11

Live does not recognize MIDI effects. So, to use this, you will need two tracks.

1. The track with the MIDI and *Starp*.
2. The track with the synth.

Set the input of the Synth track to be the track with *Starp* . In the second drop down, choose *Starp* itself (not Pre FX or Post Fx) as the input.

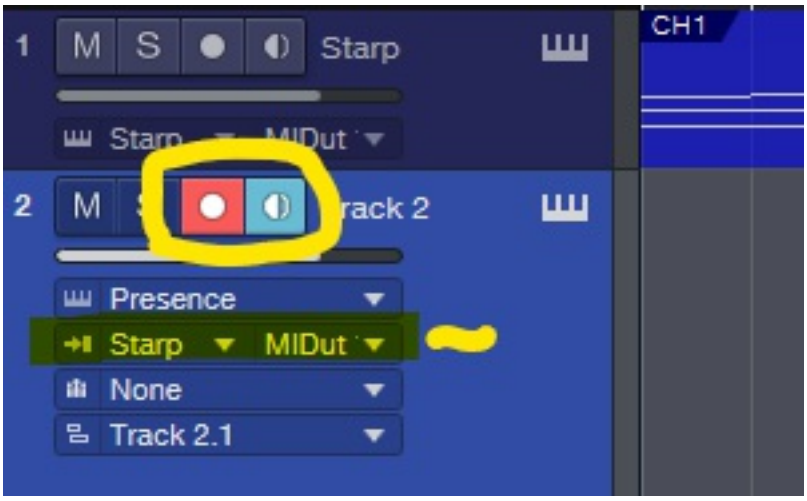


Studio One 6

Studio One does not allow you to use 3rd party MIDI effects in the Note FX slots. Set up is similar to Ableton Live

Note Record Arm must be on or the MIDI will not reach the synth. Yes, this is painful for no good reason.
Go Vote (https://answers.presonus.com/43595/add-support-for-third-party-note-fx)

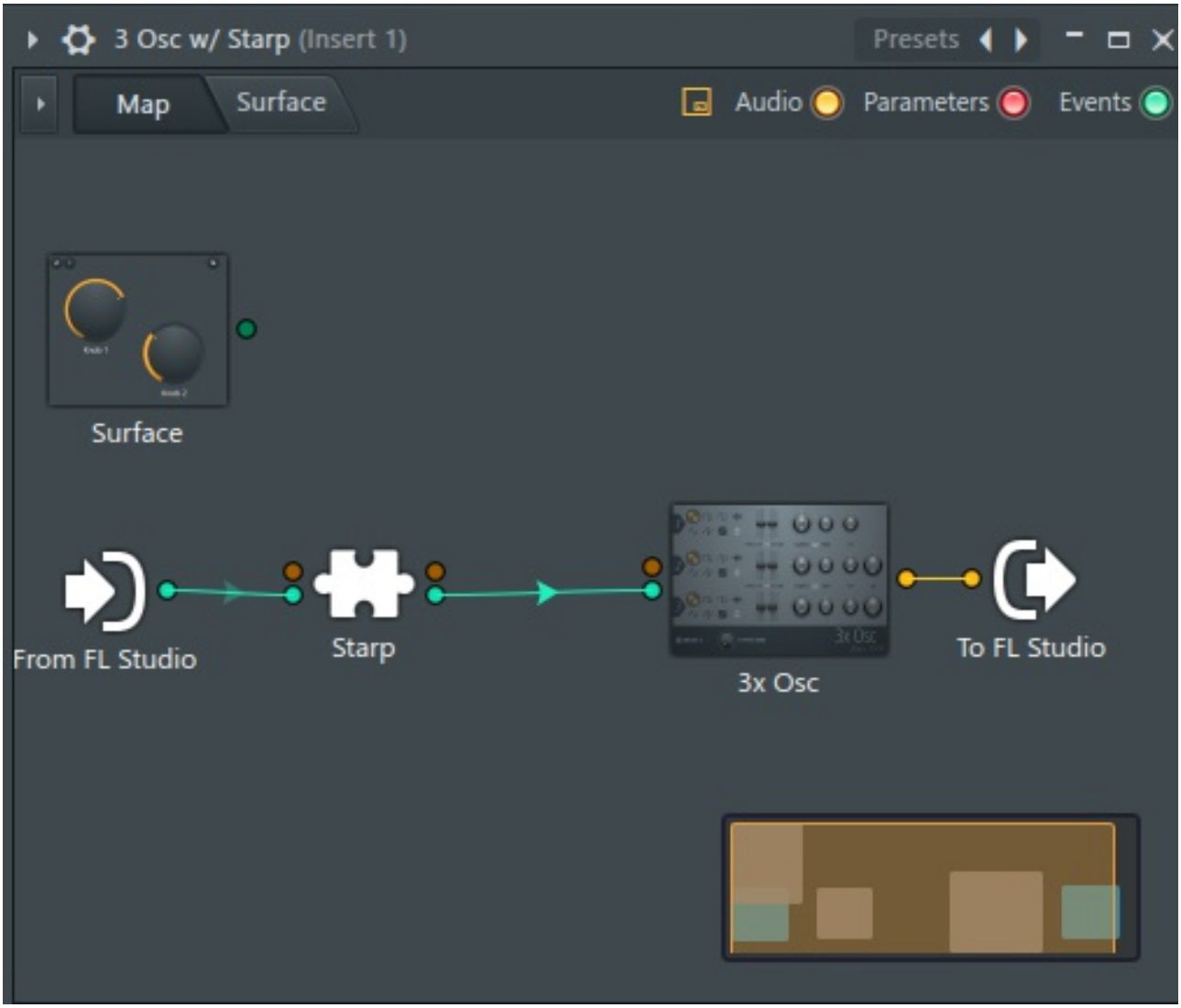
to change this.

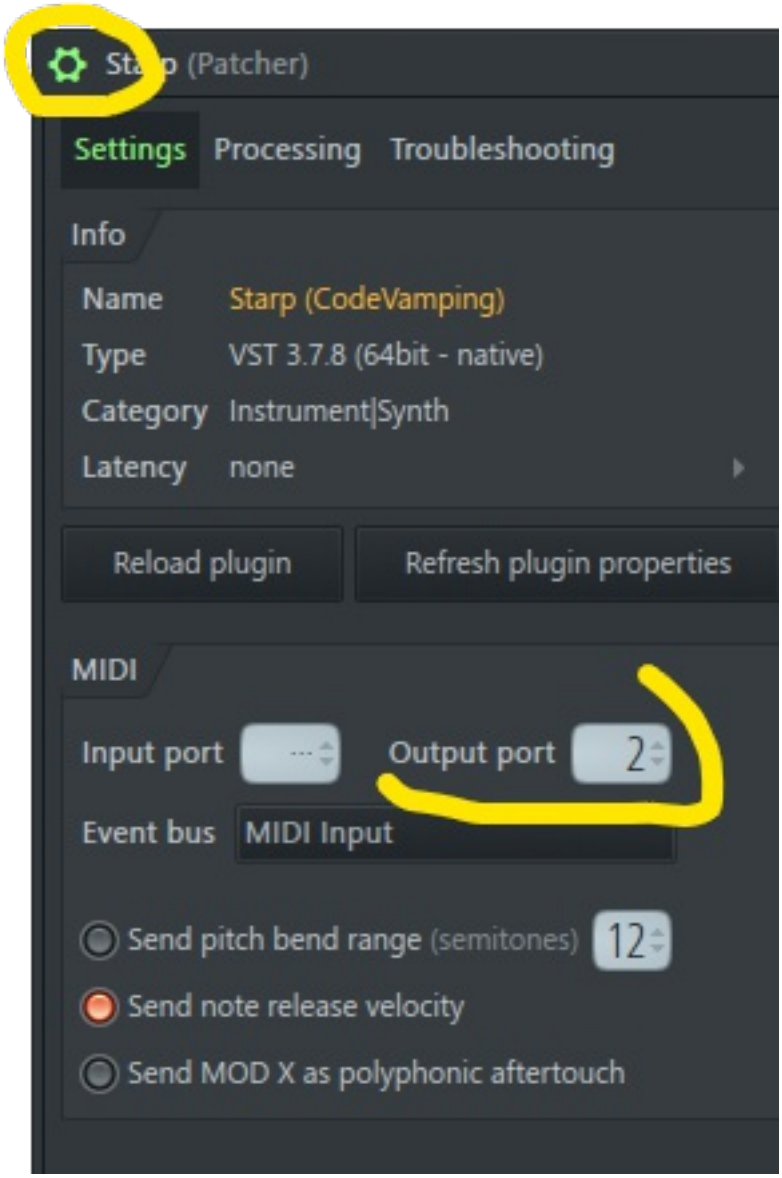


FL Studio 21

FL does not recognize MIDI effects. The easiest way to set this up is using patcher.

1. Add a patcher to the instrument bank with whatever synth/instrument you want.
2. Add *Starp* to the patcher and hook it up (it should look like the below).
   NOTE Add it from the synth subsection of the plugin menu, not the effects subsection.
3. Double Click on the *Starp* instance and the use the cogwheel in the top-left to set the midi output port. Exact port number does not matter.

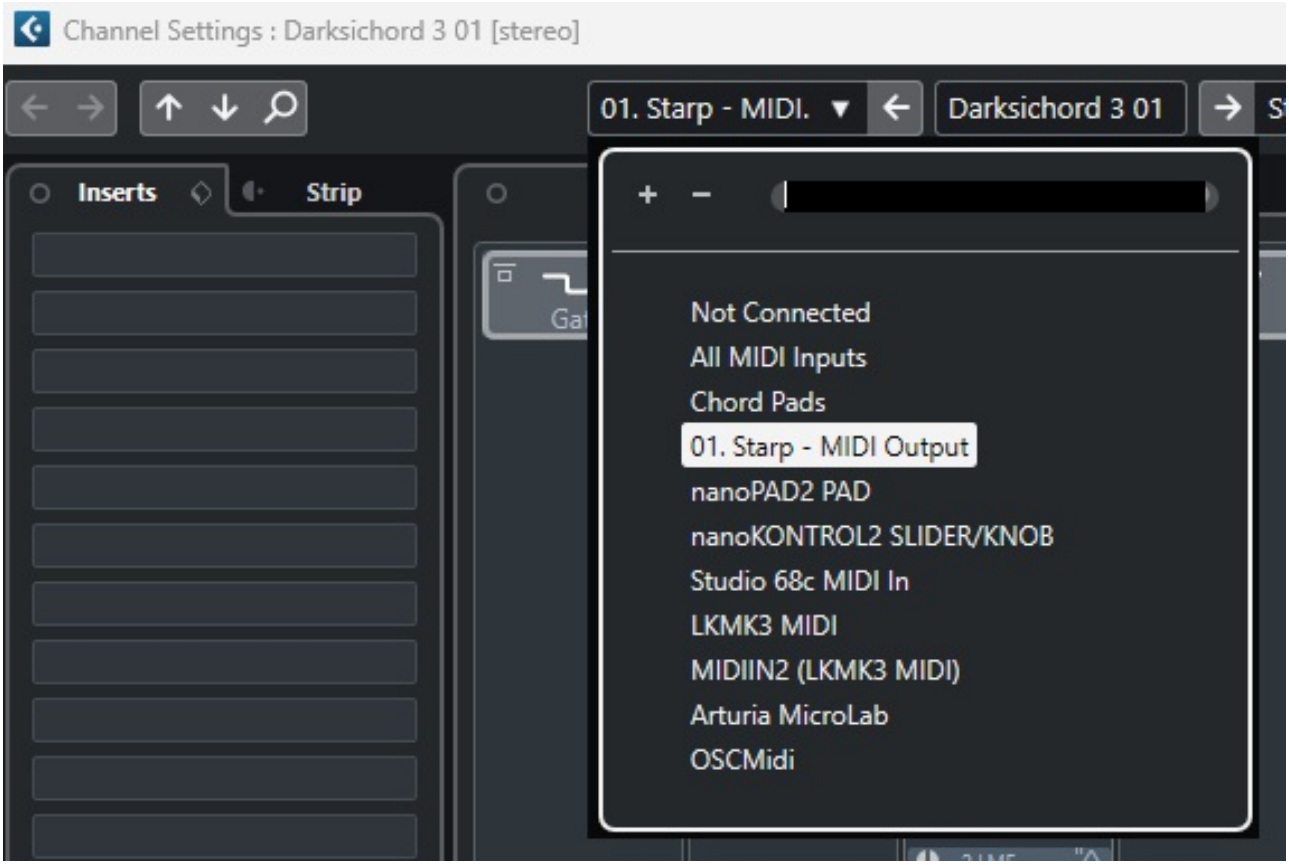

3 Osc w/ Starp (Insert 1)
Presets
Map
Surface
Audio
Parameters
Events
Surface
From FL Studio
Starp
3x Osc
To FL Studio



Cubase 12

Similar to the Ableton Live set up, you will need two tracks. Be sure to route the midi from the track with *Starp* on it to the instrument track (See below).

Note Record Arm must be on or the MIDI will not reach the synth.



User Interface

Header



The `menu` button on the left contains the `about` menu option to display version, copyright, and other information about the software.

Algorithm

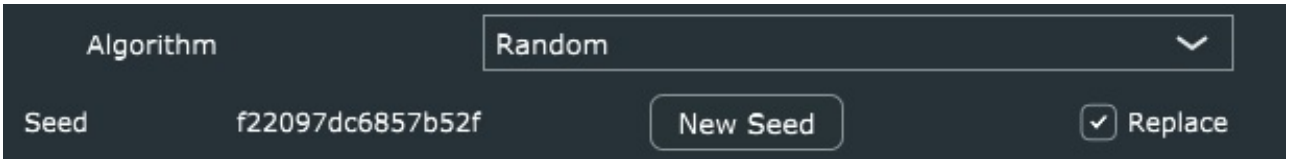
The algorithm section consists of two rows. The top row allows you to pick the algorithm. The bottom row contains options specific to the algorithm.

NOTE: None of the settings in this section are automatable in the host and will not show up in the parameters list.

Random Algorithm

This algorithm is the reason the plug-in exists. Most random arpeggiators will give you a different sequence of notes each tme you play through the track. *solidArp* will give you the exact same (random) sequence each time you play - assuming there is no changes to e.g. the MIDI data or BPM, etc.

The algorithm does its best to make sure that the same note is not played twice in a row.



Seed

This is the value used to initialize the random number generator that selects tones. It is saved as a part of the configuration when you save your project in your DAW. It is displayed as information only.

New Seed Button

When pressed, this button will generate a new seed.

Note : There is currently no way to return to a previous seed. So be sure to save your project if you want to be able to get back to the previous seed.

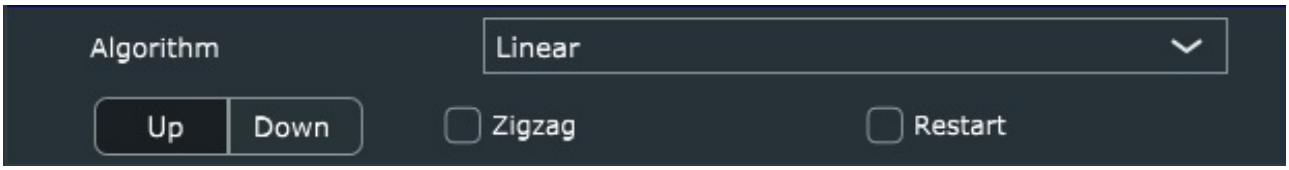
Replace

By default, the random algorithm will not play a note that it has already played until all currently sounding notes have been played (choice without replacement).

When the options is on (check mark in the box) this will no longer be the case. Each time it must choose a note, it will choose from the full range of notes currently being played (choice with replacement).

In either case, the set of notes it will choose from will be refreshed every time the midi data changes.

Linear Algorithm



Up / Down

These button set the primary direction for the arpeggiation. When `Up` is selected, the arp will start at the lowest note and work up. If `Down` is selected, the arp will start at the highest note and work down.

Zigzag

When selected, the arp will go both up **and** down. The starting direction is set by the Up/Down radio buttons.

The zigzag does not repeat the note in the middle. So, if `Up` and `Zigzag` are chosen, the highest note will not be repeated in the middle of the sections.

Restart

By default, the sequence runs continuously in the background. If there are no notes being played, then the plugin creates no midi data, but the sequence is still running.

When `Restart` is selected, the sequence will restart every time the midi notes change.

Spiral Algorithm



Primary Note Selection

These radio buttons set whether the top or bottom note is the first (for `In`) or last (for `Out`) note in the sequence. For the `InOut` and `OutIn` sequences, these set both the starting and the ending note.

Sequence Selection

These radio buttons set which of 4 sequences to generate.

In The sequence starts on the Primary Note and "spirals in" to the center.

Out The sequence starts on the center note and "spirals out" to the Primary Note.

InOut The `In` and `Out` sequences are performed back-to-back. *note*: The center not is **not** repeated - but the primary note will be as the sequence restarts.

OutIn The `Out` and `In` sequences are performed back-to-back. *note*: The center not is **not** repeated - but the primary note will be as the sequence restarts.

Parameters

All setting in this section are automatable by the host and can be controlled via a MIDI controller. See the Appendix for the names of the parameters and how they map to controls in the plug-in.

Each of the sliders in this section work the same way. You can change the value by

- Grabbing the slider knob and moving it along the track.
- Clicking in the track to move the slider knob to that location.
- Double click in the track to return the slider knob to the default value.
- Clicking on the box that shows the value and typing in a new value.
- Scrolling the mouse wheel while the mouse pointer is on the slider track.

For those sliders that have continuously variable values, a "Fine Adjustment" mode is available by holding down `Cmd/Ctrl` while dragging the slider knob.

Probability

Sets the chance that a note will be played. Ranges from 0% (never) to 100% (always). The default setting is 100%.

Note that sequences are advanced even if a note is not played.

Speed

There are three ways to specify the speed of the arpeggiation.

- Note value
- Bar division
- Millisecond

Note Value



Speed is specified as a Note Value - 1/8 means eighth note, etc. The following suffixes are used to modify the base value:

Suffix	Meaning
d	Dotted - the value is 150% of the base value
t	Triplet - the value is 66% of the base value
q	Quintuplet - the value 80% of the base value

Faster timings are on the left and slower on the right.

solidArp uses data from both the BPM of the track and the time signature to compute the actual length.

For the whole note values ('1/1', '1/1t', '1/1q') the length of the note is equivalent to 4 quarters notes *not* a bar. So, if the time signature is 3/4, then 1/1 will last for longer than a measure.

Bar Divisions



Speed is specified as the number of notes to place in a measure.

Faster timings are on the left and slower on the right.

Fine Adjustment mode is available but rather pointless.

solidArp uses data from both the BPM of the track and the time signature to compute the actual length.

As an example, if you are in 3/4 time signature and select 4, there will be 4 notes generated during a single measure and each note will last the same as a dotted eighth note.

The timing slots in this mode always start at the beginning of the measure as indicated by the DAW. If you select 1 but the midi information starts on beat 3 of a measure, the first note generated by the sequence will be on beat 1 of the next measure.

Milliseconds



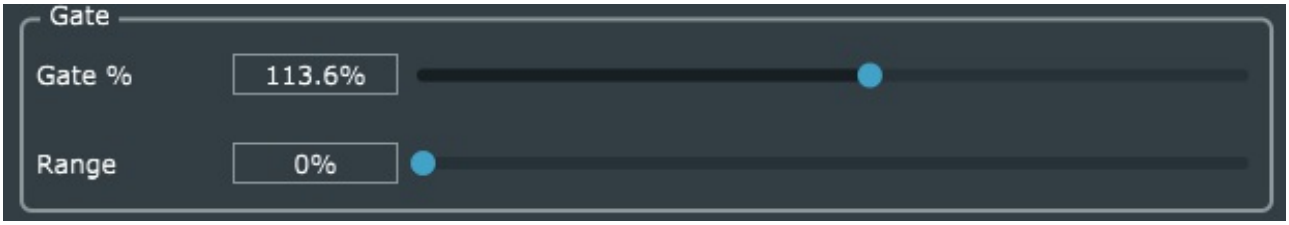
Speed is specified as the number of Milliseconds from the start of one note to the next.

Faster timings are on the left and slower on the right.

Fine Adjustment mode is available.

The timing slots in this mode start from the beginning of the project and do not (necessarily) line up with the start of midi data.

Gate



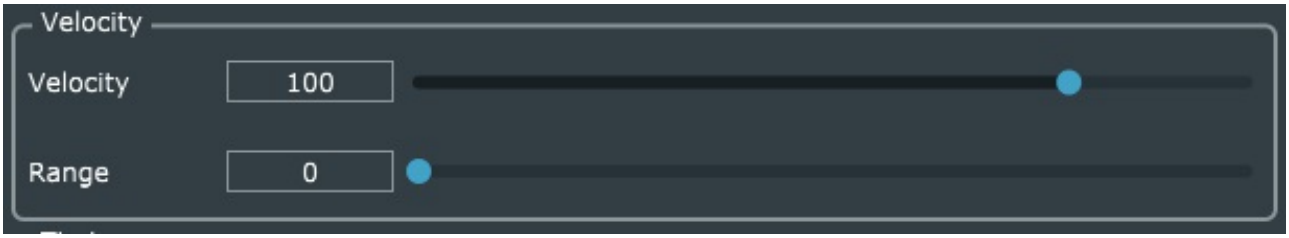
Sets how long the note will be on as a percentage of the speed. This ranges from 10% up to 200%.

The Range slider tells the system to randomly choose the gate amount from the interval +/- the range setting around the `Gate %`.

Fine Adjustment mode is available for `Gate %`.

Default value for `Gate %` is 100% and for Range is 0.

Velocity

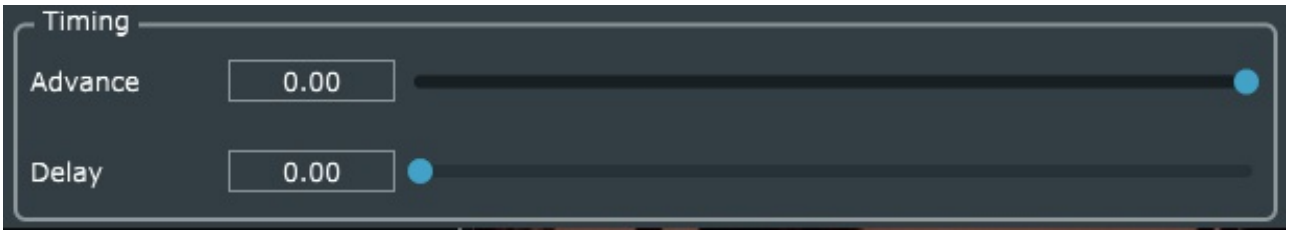


Sets the value for the Midi velocity of the generated notes.

The Range slider tells the system to randomly choose the velocity from the interval +/- the range setting around the `Velocity`.

Default value of `Velocity` is 100 and for Range is 0.

Timing



These can be used to randomize the exact timing of the notes.

`Advance` allows you to specify a range of timing so that the note possibly arrives early. This ranges from 0 to 30% of the nominal note value.

`Delay` allows you to specify a range of timing so that the note possibly arrives late. This ranges from 0 to 30% of the nominal note value.

The default value for both is 0.

Fine Adjustment mode is available for both.

Appendix

Host Automatable parameters

This table gives the names of the paramters that *solidArp* makes available to the host and which control on the UI it corresponds to.

Parameter Name	UI Control
Advance	THe Advance slider in the Timing section
Delay	The `Delay` slider in the Timing section
Gate %	The `Gate %` slider
Gate Range	The Range Slider in the Gate section
Probability	The `Probability` slider
Speed in msec	The Slider in the Speed section when `msec` is selected
Speed in Notes	The Slider in the Speed section when `note` is selected
Speed per Bar	The Slider in the Speed section when `bar` is selected

Speed Type	The Combo-box in the Speed section
Velocity	The `Velocity` slider
Vel. Range	The Range slider in the Velocity section