



# Introduction

Welcome to S One - a Wave Shaping Synth.

S One is a simplified version of our full wave shaping synth Shaprio. S One utilises one voice instead of Shapiro's three voices, but S One still a powerful and useful synth.

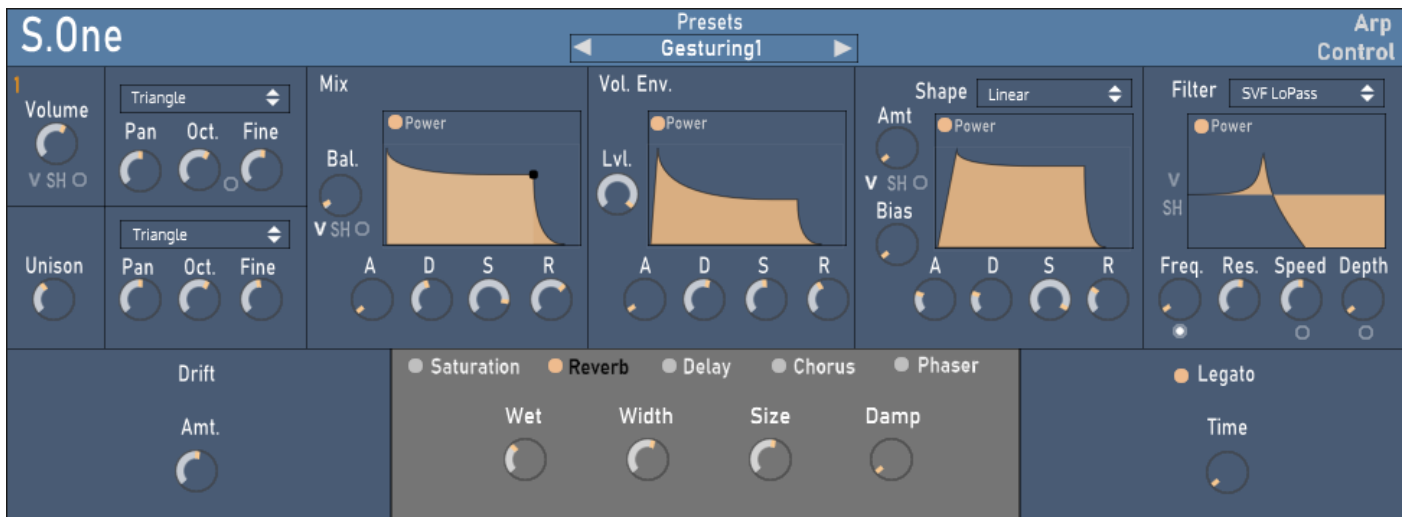
S One reduces Shapiro's 5 oscillators to 2, but still offers a different approach to sound-generation, using its oscillators in a matched pair and allowing you to cross-fade between them.

Outputs from the oscillator-pair passes through a Wave Shaper, which you can control with an envelope - and on into a dedicated filter section.

The voice output is then passed through the effects section, then through our "Drift" analog-tuning emulation engine and into a legato system derived from our work on orchestral ROMplers.

S One allows an unprecedented control over where and when modulation can be applied, many controls have independent Note Velocity and Sample & Hold modulation sources that you can select. You can use Note Velocity to set the voice volume, set the mix of the oscillators, set the amount of drive into the Wave Shaper and set the Filter Frequency, you can apply Sample & Hold to voice volume, mix, shape amount and filter frequency. Some of these are pretty standard but some are unique and give S One a huge amount of playability and control. Many controls also have a dedicated step-modulator, more on this later.

S One comes with an Arpeggiator and a page to allow you to set up unique -macro-like CC message assignments.



## Voice Configuration

S One's Voice is configured in exactly the same way as Shapiro's two main voices. There are two oscillators in the voice and you can control the balance (mix) of these oscillators. The output of the voice then passes through a volume envelope, and an independent wave-shaper, then finally thru a filter section.

## Effects

The sound from the voice passes thru the 5 in-line effects in series.

## Drift

Finally the voice can be pitch-modulated, in small random ways to emulate older classic analog-synth output.



## Voice controls

The voice starts with an overall volume control, the “V” next to the control turns on/off velocity-based modulation for the voice, the “SH” turns Sample & Hold on/off, the small circle opens the step modulation controls (more on this later). Below these controls is the unison control to set the amount of “voice-doubling/thickening” that applies to the voice.

Next along are the controls for the two oscillators. You can set oscillator shape (nine different types), the pan position, the octave and the fine tuning for each oscillator.

Next are the oscillator mix controls. The balance sets the amount of each oscillator included in the voice output, alongside this is the mix envelope. This sets an envelope for the balance - giving you audio output that moves over time for each note played. Again you can add “V” - Velocity, “SH” - Sample&Hold modulation of the mix amount, or you can use the step modulator.

Next are the Volume Envelope controls. Here you can set the classic envelope controls for configuring the voices output volume. The level control set the amount that the envelope affects the output.

Next are the dedicated wave-shaping controls. You can select the wave-shape to be used (seven different shapes). The Amt control sets the amount (or drive) of wave-shaping, and the Bias sets the bias of the wave-shape (this only makes a subtle difference in most cases). The wave-shaping envelope is applied to the amount of wave-shaping used, so again this offers a way to include timbral changes as each note is played. Again you can add Velocity, Sample&Hold or use the dedicated step modulator.

Finally are the filter controls. You can set the type of filter(10 types available), the interface shows the currently selected filter. Again you can apply Velocity or Sample & Hold control to the filter frequency . Below the display are controls to set the filter frequency and resonance, and speed and depth controls for the dedicated filter-frequency LFO.



## Effects

The summed output of the voice is passed thru the effects in the order of effects as laid out in the effect display area.

Saturation → Reverb → Delay → Chorus → Phaser

Clicking on the effect name displays that effects control set. To the left of each name is an on/off button for that effect.

## Drift

The drift control sets the amount of random pitch drifting that each voice undertakes. Older analog hardware tended to drift in and out of tune, and whilst this isn't desirable over large values, a small amount of drift provides a useful level of realism and character.

## Legato

The legato control sets the amount of portamento used. We took this feature from the world of *Orchestral ROMplers* so its a realistic musical feature.



## Modulation System

Next to a number of the controls is a small “circle-button”, this turns on/off the independent modulation system.

Turn on a modulator and the modulation dialog will appear. The name of the parameter/control that is targeted is shown in the top left of the dialog. Use the dismiss button at the top right to close the dialog - this does not turn the modulator off - only the circle-button will do that.

In the dialog are the following controls:

**Steps:** sets the number of steps (4 to 64) in the modulation sequence.

**Tempo:** sets the modulation speed (tempo synced to your DAW)

**Smooth:** sets the amount of smoothing applied between each step.

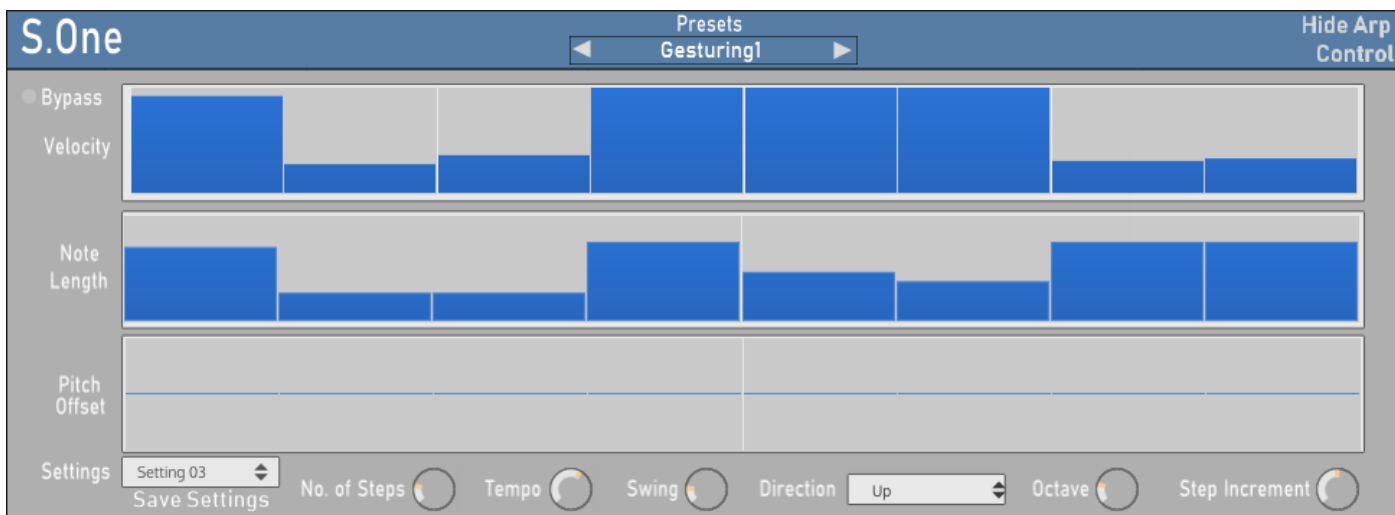
**Depth:** sets how much the modulator is applied to the target control

**Random:** sets an amount of randomness applied to each step.

**Modulation table:** set the values you wish to use for modulation.

The modulation system is very flexible, allowing you to set up long-running, slow-moving changes as well as fast LFO style modulation - for things like vibrato or tremolo, and to set the overall shape in individual and unique ways.

Next to a number of controls is the small “V” - this button turns on note-velocity modulation. For the Volume and Filter Frequency this is pretty standard, but we’ve also allowed you to use it for oscillator mix and wave-shaper amount. When applied to these two areas velocity can markedly affect the sound and character of S One, and increase the “playability” of the instrument.



## Arpeggiator

S One comes with a simple, flexible and useful arpeggiator. You can display and hide the arp using the button at the top of the S One interface.

You can bypass the Arp with the button at the top left.

For each step of the arp you can use the three tables to set the velocity, note length and pitch .

Below these tables are the overall arp controls.

You can select and/or save up to 20 different settings.

Next you can set the total number of steps (from 2 to 32).

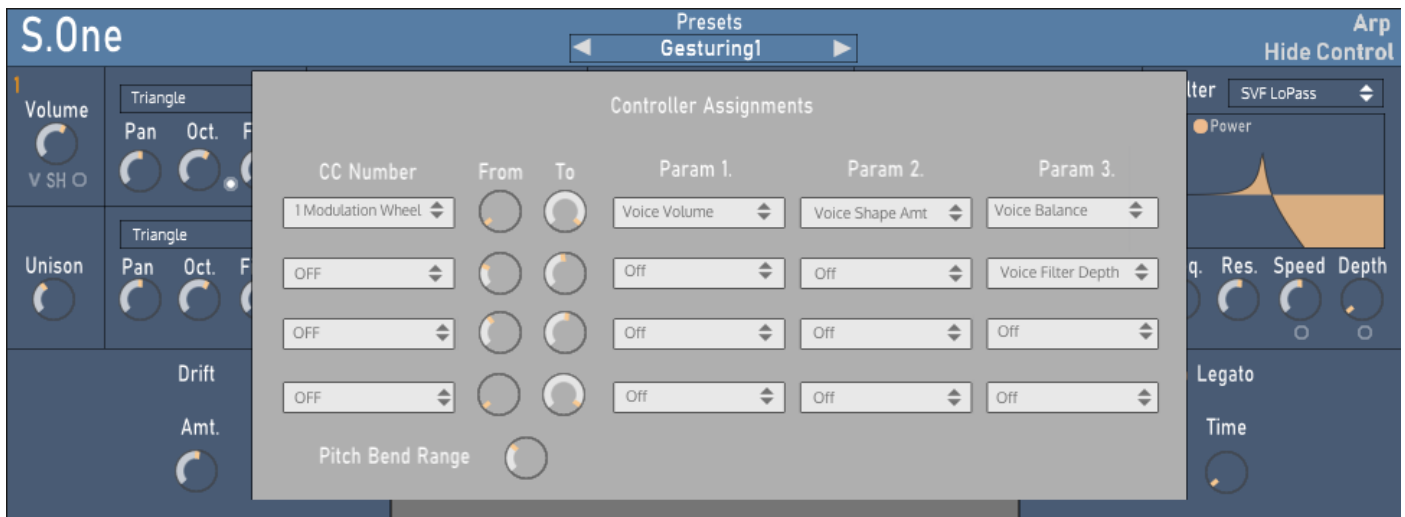
Next set the tempo (tempo synced to your DAW).

Next set the amount of swing used between steps.

Next set the direction of playback (5 choices) - this sets the order for the held notes, not the order of the arp steps themselves.

Next set the number of octaves used - so the arp will move sequentially thru the octaves at the end of each play-back cycle

Finally set the step increment - so a value of 1 will move thru the tables one step at a time, a value of 2 will jump forwards two steps every time, a value of -1 will run thru the tables backwards.



# Controllers

S One's controller management interface allows the assignment of CC and pitch bend control.

The interface allows the definition of 4 "CC profiles", these define the CC number, the targeted parameter in S One (up to 3 of these) and the range that the CC control will move thru.

CC Number - set the CC number to use (note: you can define the same CC more than once).

From: set the lowest (percentage) value the target controls will move to.

To: set the highest (percentage) value the target controls will move to.

Param 1. : Set the first target parameter.

Param 2. : Set the second target parameter.

Param 3. : Set the third target parameter.

In this way you can use a single CC controller on your midi system to move and control 3 (or more) different parameters of S One, and have each parameter move by differing amounts.

Finally you can set the pitch bend range for S One.



## Presets

S One includes a preset browser, and comes with 85 factory presets.

At the top of the interface you will see the name of the last loaded preset. Click on this name to open the preset browser. Click again to close the preset browser.

Next to the name of the last loaded preset are forward and backwards arrows, use these to move through the presets in turn.

## Preset browser

The preset browser is organised into Categories → Sub-categories → presets

In each of these its possible to “Add” new elements, “Rename” a selected element and “Delete” a selected element

In the presets section you can select/unselect a preset as a favourite (the star icon).

You can search for a specific preset using the search box, or list all your favourites using the “star button” to the left of the search box.

You can save a modified preset using the Save Preset button at the top right.





## Presets continued..

### Loading the Factory bank

At some point you may wish to re-load the factory presets. Clearly you can modify and change any of the included presets but you can always reload the Factory presets bank at any time.

- Open the preset browser, and select the Factory category, but don't select a sub-category.
- Now press "More" (over on the top left)
- From the menu select "Import all presets from Collection"
- In the File load dialog that appears navigate to the folder where the installer uncompressed S One.

On Mac this will be in /Applications/ChannelRobot/S One

On the Windows the default location is C:/Program Files/Channel Robot/S One

- Select the file S One\_Presets.hpa and press Open

S One should now install the Factory preset bank.

Note: this .hpa file format is something you can use to save your own preset banks and share them with other S One users.



## Stand Alone Application Settings

The Stand Alone version of S One has one final control and panel.

Next to the Name is the settings cog - click this to show the MIDI and Audio settings for the instrument.

You can select the MIDI device you want to use with S One, the MIDI Channels it should be listening on, and the audio interface set up you would like S One to send audio thru.

You can also set a Global BPM that S One will use to sync all its Tempo sync-ed controls with.