OSTERHOUSE SOUNDS

presents

Ripple Cello



VST AU AAX

Cello in Motion

Introduction

On string instruments, there's a kind of energy and life you can put into the sound as you travel between two notes, especially if you play them in a single bow stroke. You can lean into the first note expressively, and then let the second note fold into the release of the first note so that they sound like one gesture. If these notes were recorded separately, then stitched together later, it wouldn't have the same nuance.

It's gratifying to play these two-note slurs across different dynamics. To capture this feeling, the samples are all recorded as swells. At the beginning of the swell, the second note can be played so lightly that the pitch is hardly perceptible. It's like a ghost note. Then, as the sound grows, the slurs naturally change and adapt to keep it fresh.

Like many other Osterhouse Sounds libraries, these are not standard string articulations. It's a specific playing style which happens to work well when mapped to a piano keyboard. The hope is that this particular style of playing inspires you to explore new ways of using strings in your music, either in sample libraries, or when working with session musicians.

I look forward to hearing the beautiful music you create with this instrument!

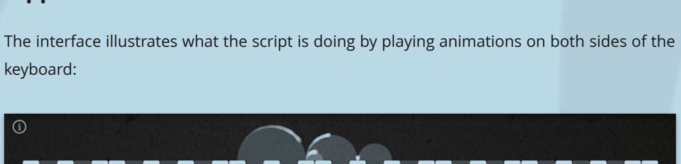
Thank you,
Ben Osterhouse

Getting Started

From now on, we will call the slurred pairs of notes "ripples". It's a more poetic way of describing the gesture

Ripple Animations

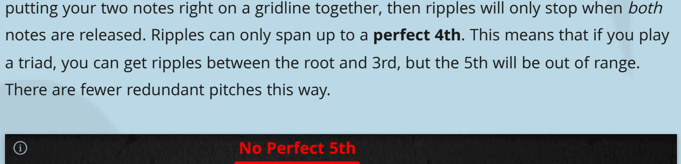
The interface illustrates what the script is doing by playing animations on both sides of the keyboard:



These animations show which pitches the ripples are traveling between. The outer rim of each animation moves in a circular motion to show whether the ripple is going up or down, and the filled part fades in and out as the ripples swell. Animations for downward ripples go below the keyboard, and animations for upward ripples go above the keyboard.

Playing Ripples

Play **overlapping pairs of notes** to make ripples. Stop them by letting go of whichever note triggered the ripple. If you trigger ripples by drawing notes in your midi editor, and putting your two notes right on a gridline together, then ripples will only stop when *both* notes are released. Ripples can only span up to a **perfect 4th**. This means that if you play a triad, you can get ripples between the root and 3rd, but the 5th will be out of range. There are fewer redundant pitches this way.

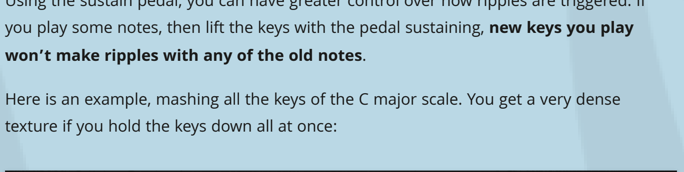


Of course, there are lots of chords where you do have many redundant pitches. The extra busyness sounds good though. The max span of a perfect 4th strikes a nice balance between busy and sparse.

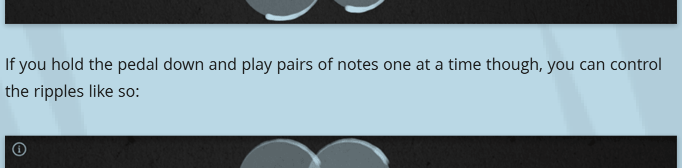
Sustain Pedal

Using the sustain pedal, you can have greater control over how ripples are triggered. If you play some notes, then lift the keys with the pedal sustaining, **new keys you play won't make ripples with any of the old notes**.

Here is an example, mashing all the keys of the C major scale. You get a very dense texture if you hold the keys down all at once:



If you hold the pedal down and play pairs of notes one at a time though, you can control the ripples like so:

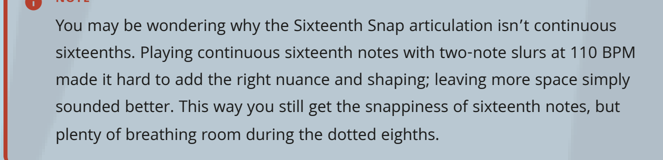


Articulations



Articulations can be selected via the **red keyswitches** below the playable range. Below is example notation for each:

Quarters



Eighths



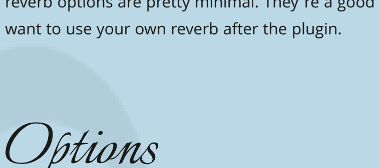
Sixteenth Snap



NOTE

You may be wondering why the Sixteenth Snap articulation isn't continuous sixteenths. Playing continuous sixteenth notes with two-note slurs at 110 BPM made it hard to add the right nuance and shaping; leaving more space simply sounded better. This way you still get the snappiness of sixteenth notes, but plenty of breathing room during the dotted eighths.

Controls



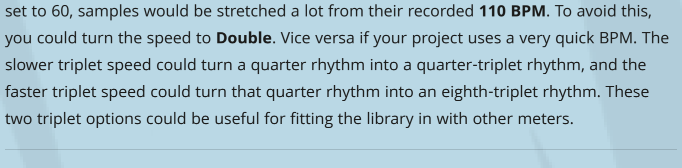
Expression

There are two ways to control volume in this library: **Velocity** and **Expression**. It's nice to have an expression knob because it adjusts the volume pre-reverb. This way you can get away with changing volume more without it sounding too unnatural. The min/max values and scaling are set to sensible values. By default it is mapped to **CC1**, but you can right-click to remove that mapping and change it to whichever CC you'd like.

Reverb

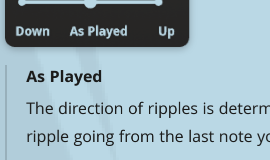
Choose from 3 reverb presets (Small, Medium, Large) using the menu below the knob. The reverb options are pretty minimal. They're a good place to start from, but you'll likely want to use your own reverb after the plugin.

Options



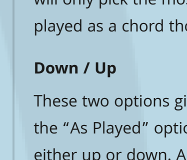
All the options can be controlled via keyswitches, by automating the sliders via host automation, or by right-clicking and learning them to a CC.

Speed



Adjust how ripples will be time-stretched to fit your project tempo. If your project BPM is set to 60, samples would be stretched a lot from their recorded **110 BPM**. To avoid this, you could turn the speed to **Double**. Vice versa if your project uses a very quick BPM. The slower triplet speed could turn a quarter rhythm into a quarter-triplet rhythm, and the faster triplet speed could turn that quarter rhythm into an eighth-triplet rhythm. These two triplet options could be useful for fitting the library in with other meters.

Direction



As Played

The direction of ripples is determined by the order you play notes in. It will try to play a ripple going from the last note you played to the most recent note.

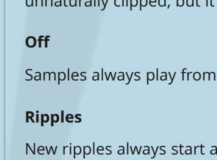
If you play a two-note chord, but the interval is too wide to make a ripple, then when you add a note in the middle of that two-note chord, ripples will be triggered from both notes.

If the recent note is out of range of the last note (it's greater than a perfect 4th away), and you happen to still be holding another note which *is* in range of the current note, it will use that note to make the ripple. If there are multiple other notes it could go to, it will only pick the most recent one. It could pick multiple recent notes if they were played as a chord though.

Down / Up

These two options give more control, and don't have as much clever logic compared to the "As Played" option. No matter what order you play notes, ripples will always go either up or down. Any ripples that can be made, will be made.

Sync



Each of these options is some combination of legato and quantization. Whether that is technically what's happening is debatable, but intuitively that's what it feels like.

NOTE

If you start ripples, then change articulations, then start another ripple, you can have multiple articulations at once. In this case, these sync options won't work quite as designed.

With Vel→Start turned on, **Velocity no longer controls volume**. Instead, it controls where samples start playing from. This can also lead to sample starts sounding unnaturally clipped, but it opens up more flexibility and possibilities too.

Off

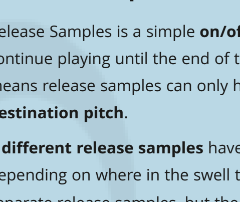
Samples always play from their start immediately.

Ripples

New ripples always start at the beginning of their swell, but their sample start is offset such that the ripples stay in sync. As a result, one ripple might be swelling louder while another one is swelling softer, which can lead to interesting evolving textures. Synced ripples have a dynamic attack-time fade-in. If you start the synced ripple half way through, it will take the other half of the length of the ripple to fade in. If you start the synced ripple most of the way through, it will fade in right away.

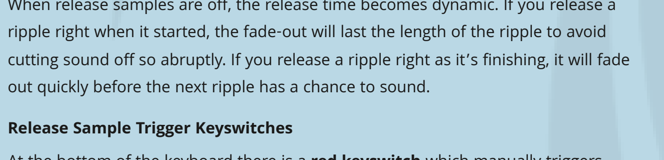
Pitches

Similar to the Ripple option, but it syncs pitches. This means that you could have a new ripple play its first pitch in sync with a previous ripple's second note, which can create a nice back-and-forth texture between the two:



Swells

This will keep the swells in sync, which can be useful if you want to create a chord change right at the crest of the swell. As long as you are holding at least one key, the position in the swell will be maintained for new ripples you start. This makes it possible to stop and start ripples over the course of a swell, like so:



Release Samples

Release Samples is a simple **on/off** button. When it's on and you release a ripple, it will continue playing until the end of the ripple, then then crossfade into a release sample. This means release samples can only happen on the **origin pitch** of a ripple, not the **destination pitch**.

4 different release samples have been recorded, and are automatically selected depending on where in the swell the release happened. The quarters and eighths needed separate release samples, but the sixteenths were able to share with the eighths and still sound good.

Off

When release samples are off, the release time becomes dynamic. If you release a ripple right when it started, the fade-out will last the length of the ripple to avoid cutting sound off so abruptly. If you release a ripple right as it's finishing, it will fade out quickly before the next ripple has a chance to sound.

Release Sample Trigger Keyswitches

At the bottom of the keyboard there is a **red keyswitch** which manually triggers release samples. Let's say you have release samples turned off, but you still do want a release at the end. You can simply press this keyswitch, and it will bring all ripples to a nice close. Either the soft or loud release samples can be triggered, depending on how hard you play the keyswitch.

Midi Output

Ripple Cello emits all the notes that the ripple samples play, and even sets emitted note velocities to match the volumes at which ripples were performed.

This way, if you route the plugin's midi output to other instruments, you can easily add doublings. For instance, if you double Ripple Cello with a soft piano, the piano can add a nice thickness, making a beautiful piano-and-strings texture.

Midi Clip Browser

The Midi Clip Browser features a collection of midi clips which show the types of things that make this library truly shine. The midi clips can be dragged straight into your project, or previewed in the interface.



Small differences in the midi can make large differences in how the samples fit together, for better or for worse, so the hope is that the ideas panel will serve to show how to get the most out of the library.

NOTE

The midi clips use keyswitches to change articulations and options. After previewing a midi clip, your options may have been changed by a keyswitch.

Credits

Performing, Recording, Editing, Graphics, Plugin Development: **Ben Osterhouse**