

Using the SINE Player with Dorico

by Ben Byram-Wigfield

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Here's a little summary of my experiences with Orchestral Tool's Miroire Library, which may be useful to others trying to set up Playback Templates for OT libraries. Others may get different results, or find alternative methods. I may even have missed something vital, or done something silly.

I quite like the SINE Player. It's different, but that's no bad thing. Much can be gleaned from the Help web pages, though they are a bit too concise and missing some key info.

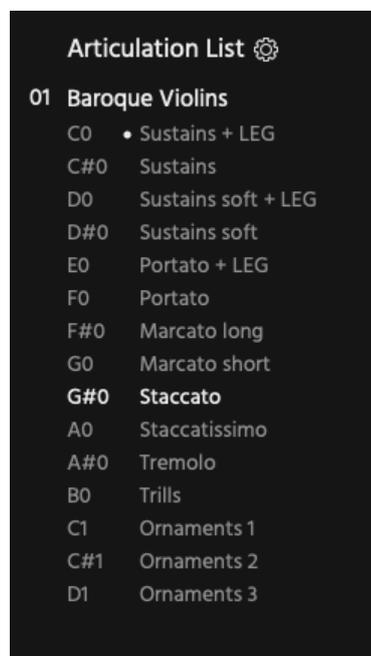
Warning

If your saved VST contains mic positions that aren't installed, you get a warning alert. However, this shows up behind Dorico's main window, so you can't see it. All you know is that the Play button doesn't turn green, until you find the window and click 'Ignore'. This can be very annoying if you've saved an Endpoint or .otsave file with different mics. There's no way of permanently removing a missing mic from a setup (that I can see).

Loading samples

If you double click on an individual sample, e.g. "Sustain", then that will load into the Articulation List on MIDI channel 1, with a Key Switch, usually C0. The next sample you load will then go into MIDI Channel 2 on the same key switch. You can sort the List by CC value, by Program Change, by MIDI Channel or by Key Switch, by clicking on the cog wheel.

However, you can load in all the samples of a given instrument by double clicking on the instrument name itself. Then you'll get all the samples, sorted by Key Switch.



NB: for Dorico's purposes, these are based on **Middle C = C3**, when you come to do the Expression Maps.

You can change the MIDI channel by clicking on the 01 next to the instrument name. You can also add another instrument, on another MIDI channel (or even the same!). So it is possible to 'layer' two samples to play at the same time.

Note that Trumpet 1 and Trumpet 2 are not 'Player 1' and 'Player 2' of the same instrument, but different instruments with different ranges. One is a Trumpet in D flat; Two is in E flat. Same for the Horns, which are F and D respectively. (I discovered this from looking through the folders where the samples are stored.) Similarly, there is only one Violin instrument. However, I've not encountered any phasing when using pairs of Oboes, Violins, etc, even when doubling and panned together. (Unlike the Choir..)

Also note that the Brass samples have some 'missing notes', which is entirely authentic, as there are notes in the scale that Baroque trumpets and Horns can't play.

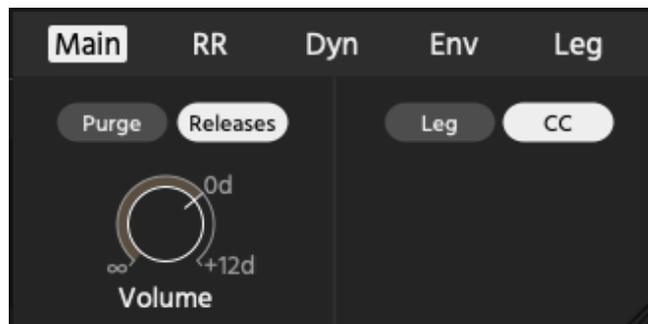
Creating an Expression Map

The first task is to set up an Expression Map that simply match the Articulation List to Dorico's Techniques, using the Key Switches in the list. (Don't worry about the Ornaments for now.) All the Oboes and Flutes have the same switches; Violins and Violas are the same; (Basso the same but octave 6, not 0.) Brass all the same. However, it might give more flexibility to have independent maps for each instrument.

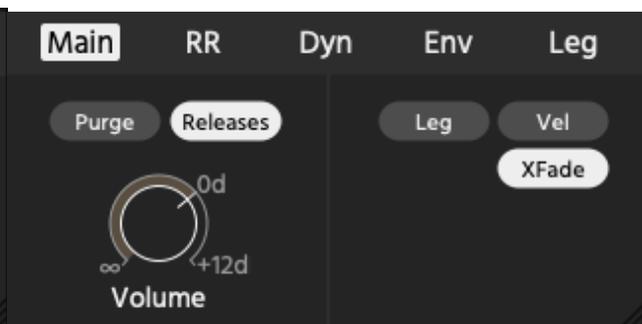
The SINE Player's Options tab is where you can discover and set all the CCs etc. So Dynamics is CC1, but you can change that to any other CC you like, and also draw a curve for how the values affect the sound.

NB: By default, Dynamics are on CC1 for sustaining samples, and on Note Velocity for fixed-length samples, like Staccato. You can see which is used for each sample in the Main tab here:

WITH CC1



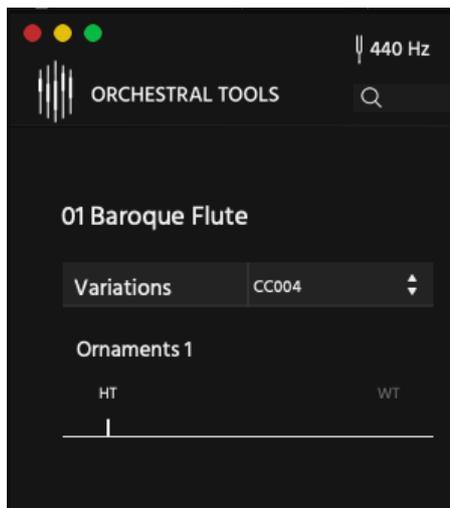
WITH Note Velocity



So make sure your Ex Map matches what you have here! You can also change these settings, if you want. I've found the Oboe Staccatissimo seems to be more useful when switched to CC1.

CC11 is defined as 'Expression', and this also affects the dynamic. I've used this as a Secondary dynamic.

The Performance tab is where you'll see what other CCs are used by a particular sample. Here, for instance, we see that CC4 controls whether the ornament sample plays Half-tones or Whole-tones.



(Thus, 64 to 127 gives you Whole Tones, and 0 to 63 gives you Half Tones. However, I wasn't convinced that CC4=0 worked, so I've used 1 and 100 as my two switch values, just to stay clear of the margins.)

Optimizing for Dorico

There is a lot in the instruments' setup that need to be optimized for Dorico. After you've made the changes, it's best to save the articulation list (Floppy disk icon) so you can load them again. If you're using a 'Playback Template document', from which to save Endpoints, it's still useful to have the player state saved.

A summary of the things that I've found give the best results with Dorico:

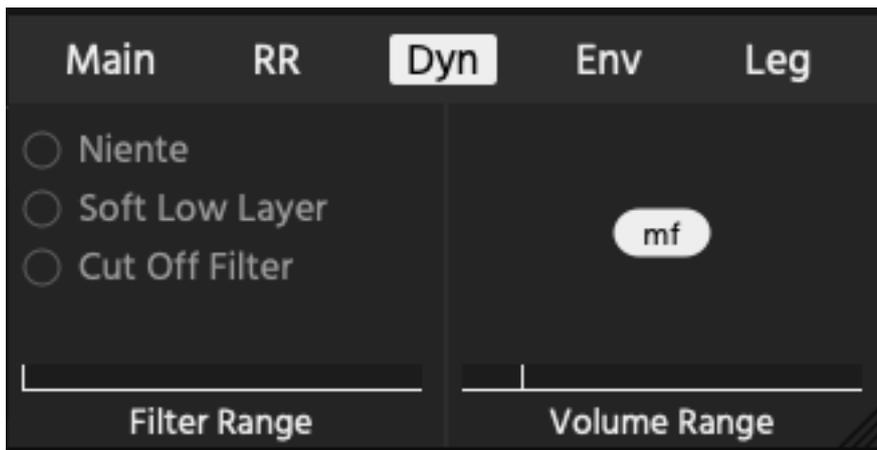
1. Turn the Volume up!
2. Shorten the release envelope on some samples.
3. Switch Dynamics from Note Velocity to CC1 for Oboe Staccatissimo

Dynamics & Volume

OT samples are very quiet compared to other libraries. I've had to turn up the Volume dial in the Main tab to +12d, as well as increasing the mic mix volumes. Turning up the main volume slider does nothing, as it resets when play starts. (Even with CC7 = 127 in the Init expression.) Any changes to the SINE Player instrument samples can be saved as a preset, to load into other documents, and save you from doing it all again..

Also, I set Dorico's dynamics curve to 2.0 in the Playback Options Overrides in the Ex Map. Values lower than this — 1.5, or 1.0 — may work better for some circumstances.

There's also a "Volume Range" slider in the Dyn tab of articulation settings.



By default, the slider is near the left end, and I can't actually tell whether changing the position does anything. The Help pages say *"This slider adjusts the volume scaling of the recorded velocity layers to allow for greater or narrower dynamic range."* I presume that sliding it to the right increases the dynamic range, which can only be a good thing. (And yes, you have to do this for each sample in the list, so again, don't forget to save a preset.)

Mute

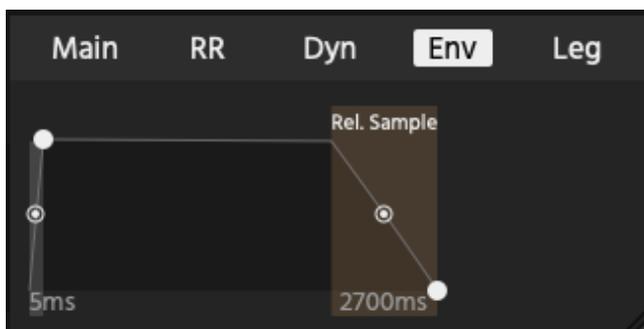
There's no explicit Mute or con sordino patch. You can fake one by using the Cut Off Filter with a small Filter Range value (about 30% over works well). But there's no way of switching it on or off, without creating a duplicate set of articulations on a different MIDI channel, or each with separate KSes. Poly mode might possibly be an option.

Legato

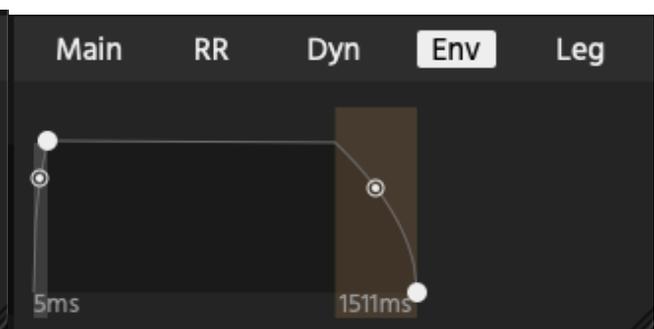
OT claims to have a 'special' legato. However, I don't think it works well with Dorico at all. It can also cause very delayed starts to notes. At one stage, I was cutting the Note Length to 55% for Default and Legato notes, and it was still playing back full length notes! In the end, I suggest only using the +LEG patches for actual Legato passages (and possibly not even then). For 'Natural' and other techniques, use the other samples.

I've also changed the Envelope on most of the samples, to try to increase the attack speed, and to reduce any overlap or weirdness at the release.

SINE Default



My adjustment



In the end, I think I've found a 'sweet spot' for the Release length of 800ms for Sustain and Portato. (*I tried turning off the Release sample completely, but I'm not sure that was better, and may cause a few weird artefacts.*)

There might be better ways of getting a decent Legato while not delaying the start of the next note. I tried setting the Transition switch to "No Transition", but that just made notes complete drop out!

One other problem is that there are no looped samples (apart from the choir). So 'Sustain' only ... errr, sustains for 5 seconds. And other samples are even shorter, e.g. Portato is 3 seconds.

'Performance practice'

Every time I assign this Performance Template to a project, I have to modify something to suit that project. Usually which samples trigger which note lengths: either to make the short notes longer or the mid-size notes shorter. So one size does not fit all, but it's a good place to start.

Choir

I've got the choir working quite well, just using the Sustain patch. However, there can be a bit of phasing, particularly amongst the gentlemen, if different players sing the same note.

SINE Player special features

You can right click on any sample to extend the note range, or transpose the samples. (Quite useful if you want Trills to start on the upper note!) You can also duplicate a sample, and then give it different articulation options. I'm sure you may be able to do some quite complex things, such as combine Marcato and Sustain onto the same Key Switch, or some such.

I don't really understand the Poly switch mode, but it's possible that might yield some impressive magic — possibly even the elusive fix to all the issues. It lets you switch between samples either on Note Velocity (useful for live performance, perhaps); or via CC20 ("Polymap CC").

The ability to 'mix down' microphone settings, so that you load in a smaller, custom, set of samples is also a nice option for those who know what they're doing.

One other snippet: the .otsave preset files are XML, so can be edited by hand. There seem to be more options and controls than can be configured in the player, so it might be possible to 'tweak' things further there.

Missing things

Looping samples, Pizzicato, Mute/sordino, Staccato for Oboes (as opposed to Staccatissimo), separate Cello, Contrabass and Bassoon instruments. As long as you don't need any of these, it's a lovely library!

Exporting to DAW

I did try exporting MIDI from Dorico to Logic (which keeps the KSeS in the MIDI data), and then setting up the VST instruments there. Curiously, playback was slightly different: possibly a bit better. It may be that Dorico is doing something that Logic isn't (or not doing something that Logic is). Clearly, the library is designed for a DAW, and working there may yield better results.

That having been said, I am actually fairly pleased with this library, and it can sound wonderful in Dorico.