Shakes (**Sk**) in handbell notation require a bit of special handling to ensure correct specification of which notes are to be shaken. Example: In this bit of music, do we shake just the C7, or the entire chord?

This question pops up with enough frequency to send bell choir directors and festival conductors to their phones/computers to ask for clarification from the composer. It's much clearer with this notation:
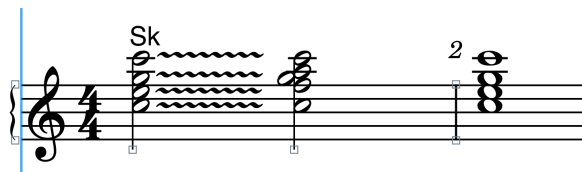

For a single-note shake, the "Sk~~~~~" works properly, but in general practice having the following provides for all cases:

1. A plain "Sk"

2. An "Sk" with a (preferably adjustable) squiggle.

3. Just a (preferably adjustable) squiggle.

The first one is easy. Just create a new playing technique as follows

In Write mode with the right zone displayed and Playing Techniques selected, find the palette of playing techniques where you want to keep your **Sk**. I've put mine in my **Common** palette, because I like being able to access it all the time. Click on the little **+** at the bottom of the palette.
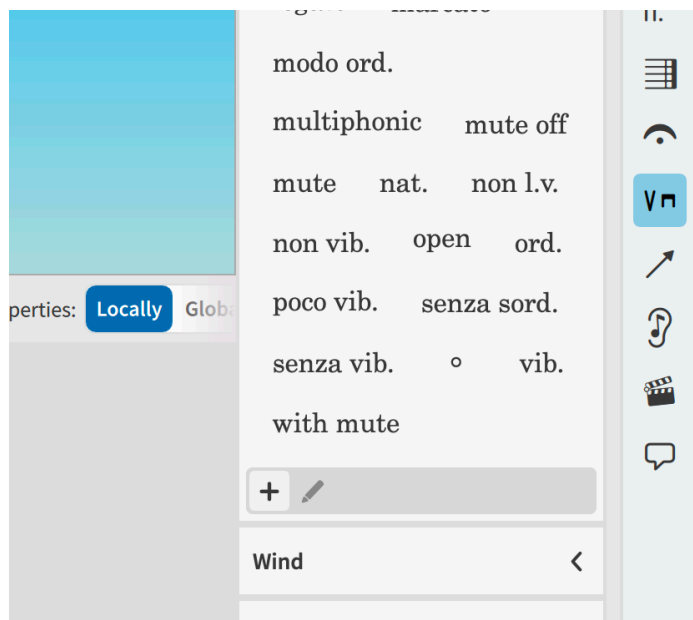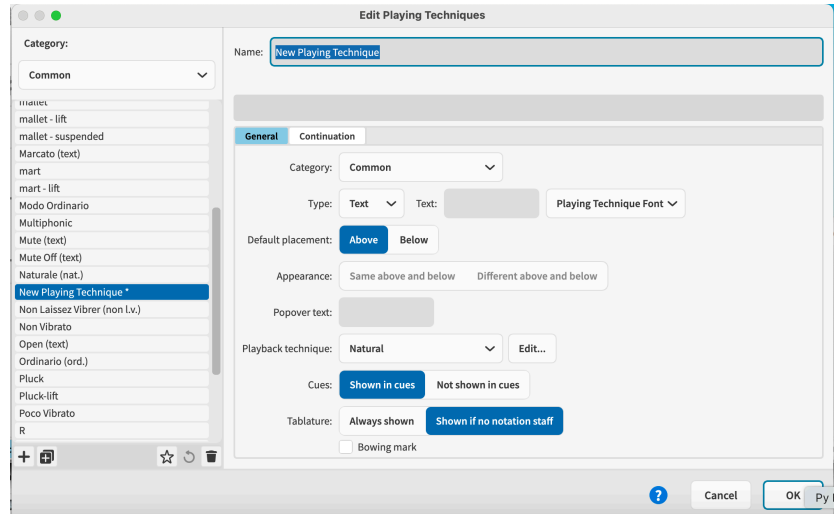
Adding a Squiggle

The following dialog will open.

in the **Name:** field, enter **Sk** (or **SK**, if you prefer all caps). This is the name of the playing technique button that will be added to your palette.

With **Text** selected, enter "**Sk** in the **Text:** field.

Hit **Ok**, and your new **Sk** playing technique will be added.

Part 2: To be able to add a squiggle to the right of your (new) **Sk** playing technique:

In Write mode, select your **Sk** playing technique, and then click on the little pencil icon next to the **+** that you used to create your **Sk**. This will reopen the dialog for your **Sk** playing technique (you may have to create an **Sk** somewhere on your score to do this).

Select **Continuation**, and this dialog will pop up:

Set C**ontinuation Type** to **Line**. This indicates the continuation of your **Sk** will be a line of symbols going to the right.

For **Duration Line**, select **Wiggly Line** (yes, REALLY!).
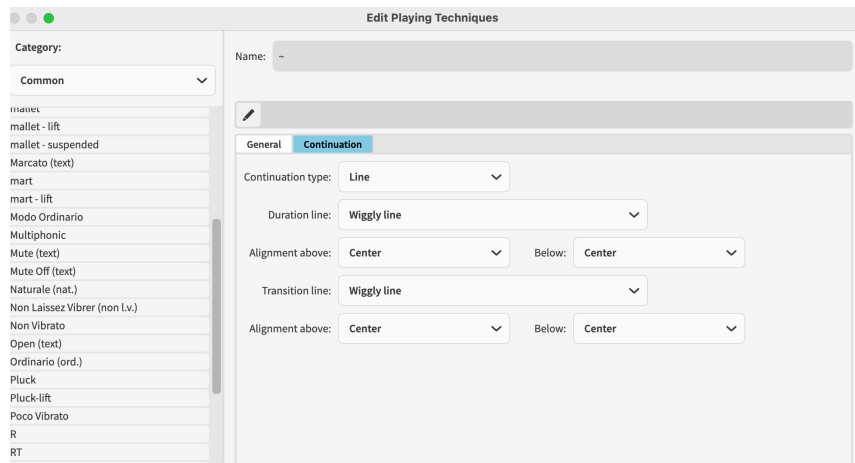
Then select your **Alignment Above:** value. I prefer **Center**, so that the squiggle is vertically centered on my **Sk**.

Click **Ok** to close the **Edit Playing Technique** dialog.

To satisfy yourself that this works, select an **Sk** on your score (or make one), and then Shift-Option/Alt right-arrow to display the continuation line. The more times you press the arrow key, the longer the continuation line will be.

Part 3: Making just a squiggle that you can extend to the right:

Create a new playing technique, and give it name like **~** (tilde). This will serve as a reminder of what it is. If another name works better for you, use that instead.

If you've looked closely at the tilde character, however, it isn't the same as the bits that make up a **Wiggly Line**. The reason for this is that the wiggle line is composed of repetitions of a special not-very-typeable character that's somewhere far afield in the Unicode character set. The chunk of smaller-font words following is a description of Unicode; if you don't want to read it right now, go ahead and skip it, and come back later if you're so inclined.

In the early days of the computer era, the developers needed a numerically-based way to represent the characters that they used in their machines. One of the first as ASCII (American Standard Code for Information Interchange, pronounced "ask-ee"). As it was still a Wild West environment, there were other competing arrangements such as EBCDIC. These were eight-bit character sets, which meant they could contain a maximum of 256 characters.

Although ASCII represented <u>American</u> English characters adequately, it didn't have enough space to account for characters that were normal to European languages such as Spanish and French. Then, of course, there were languages with different alphabets (Russian, Bengali, Eritrean), and ideographic language (Chinese, Japanese). So ASCII's 256-character capacity just wasn't enough.

After enough time, the world agree on the Unicode Standard. Unicode represents each character as a value of four hexadecimal digits = 16 bits. This allows for a set of 2^16, or 65,536 possible characters, more than adequate for all of the world's languages to have their own separate, well-defined space. Well, we hope!

With all those slots available the Unicode Standard now has allocations for practically anything you can imagine, such as emojis, symbols, pictographs. The Klingon Language Institute has even applied for an allocation for Klingon script.

The Unicode subspaces of interest to Dorico users contain musical symbols. For our purposes, they're called glyphs (probably because they aren't actual letters).

It turns out that the musical symbols on our scores are glyphs. If you haven't come across this word before, just think of a glyph as a little picture. The glyphs that make up a Wiggly Line are different from the tilde character, so to make our extendable squiggle, we need to use the right glyph. The reason for this is that you can't make a playing technique that's just a continuation; it needs a starting point from which to continue. So our best choice would be the one that's used in a Wiggly Line. That glyph has the Unicode address **U+EAA4** (in binary 1110 1010 1010 0100 - if you like ones and zeroes).

Here's how to define your squiggle:

(You've already created a playing technique and named it **~**).

Select the **Type** value **Glyph**, then click the pencil icon above the word **General**. The following dialog will open:
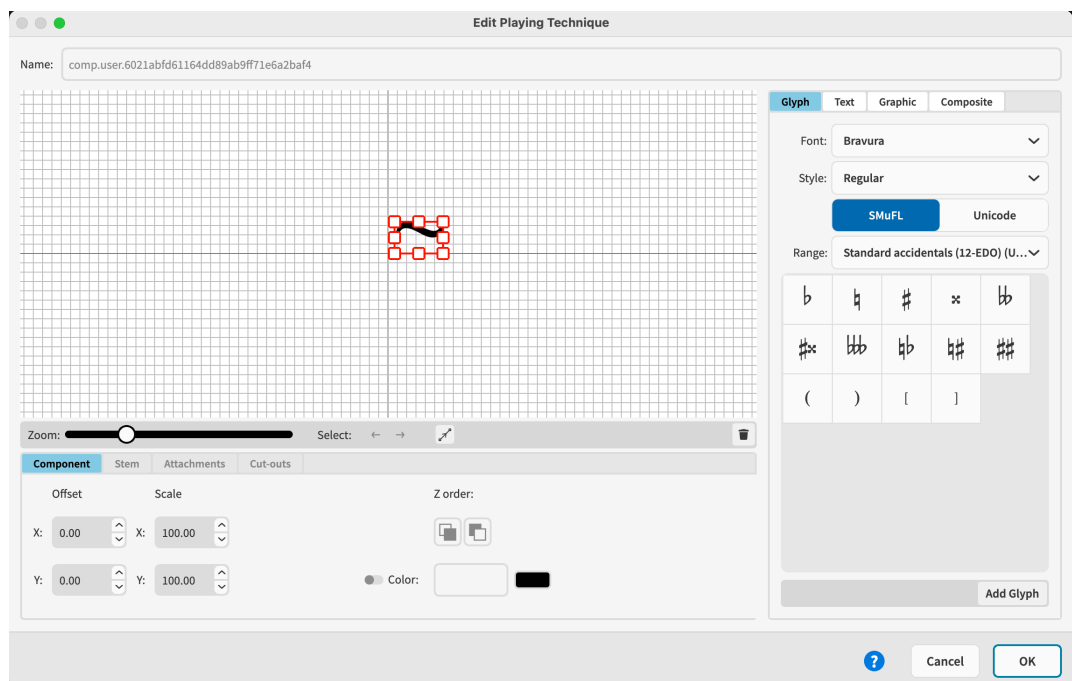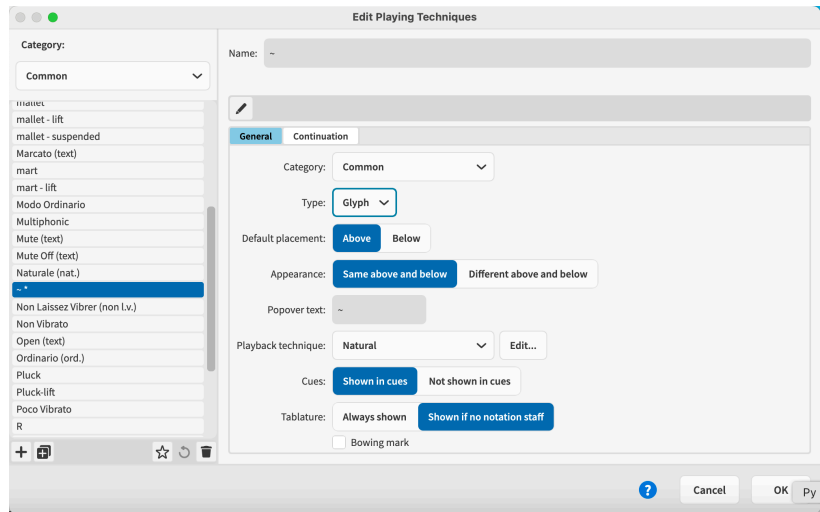
Note that the tilde character is displayed. That's because Dorico took your playing technique name and put it there in case you want to use it.

There's a tiny trash bin to the right of **Zoom** and **Select**. Click it, and the tilde will be removed.

Now to add the wiggly line glyph. You'll notice the **SMuFL** and **Unicode** on the right side of the dialog. **SMuFL** (Standard Music Font Layout) contains the

wiggly line glyph, but you have to find the correct **Range**, because Dorico arranges SMuFL glyphs in logical subsets. Click on the popup menu button to the right of **Range:**, and you'll see a huge selection of ranges.

The range that contains the wiggly line glyph is **Multi-Segment Lines (U+EAA0-U+…)**. To find this, it's easiest to scroll downward until you find the desired range (in hexadecimal, the digit sequence is 0… 9ABCDEF, so EAA0 is just after EA90). When you find it, select that range, and Dorico will display a grid of the glyphs in that range.

The wiggly line glypy is the one at the right end of the first row (U+EAA4, if you're curious). Select it, then click **Add Glyph**, and the wiggly line glyph will be added to the display. Click **Ok** to close this dialog.
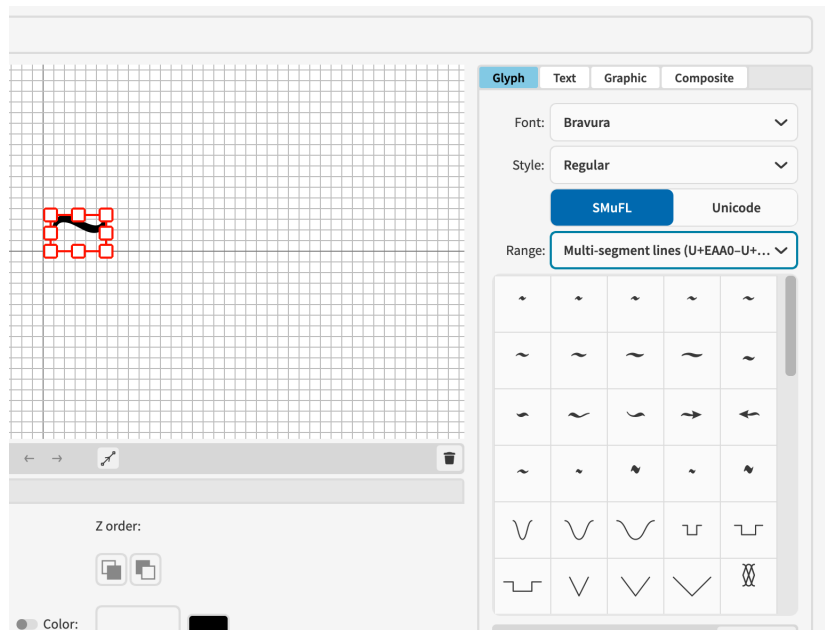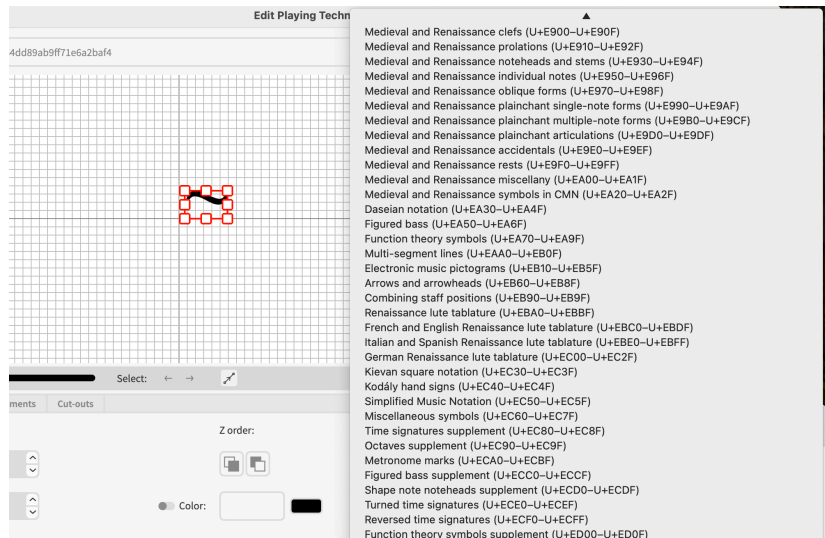
Now configure the continuation for your playing technique as you did for **Sk**.

There are a few caveats with this squiggle:

Dorico adds your squiggle directly above/below the note to which you've added it.

Adjusting the length of the continuation is done in Write mode.

To adjust your squiggle's position, drag it **by the left-hand anchor glyph** to where it's supposed to be. This must be done in Engrave mode.

The continuation wiggly line is displayed to the right the anchor glyph, with a bit of intervening space. To move it to the left so it overlaps the anchor glyph nicely, go to Engrave mode, select the continuation **only**, and then nudge it to the left.

Note: Attempts to adjust multiple squiggles simultaneously can produce rather weird results, so moving them one at a time probably is best.