

Creating Pedal Harp – Specific Notation Elements in Sibelius

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Examples from *The Composer's Guide To Writing Well for the Harp*, by Yolanda Kondonassis, used with permission of Carl Fischer Music, LLC

For some forms of music, including music for pedal harp, there are special "musical elements" that are often used. Some, like harp pedal diagrams, are well supported in Sibelius, and can be typed using a special font, or generated with one of several plugins. Many other notational elements can be created using common symbols, text, and lines, such as glissandos, and you can find descriptions of many of these in my document [Notating Music For Harp In Sibelius](#).



2 forms of harp pedal diagrams.

There are a number of notational elements that cannot be easily created with the available symbols, text, and lines in Sibelius. Carlos Salzedo's **Modern Study of the Harp** introduced many of these, and they are in common use in orchestral harp music.

I wanted to reproduce a number of "special effects" from **The Composer's Guide to Writing Well for the Modern Harp** by Yolanda Kondonassis, and these were the general principles and mechanisms I used to create them.

My intention was to create these to be used with the music in a Sibelius score, rather than taking the printed score and processing it in a graphics program.

For me, this was an educational project. I wanted to get a sense of how hard it would be to create a large number of complex notational elements, and how efficiently they could be created. I also wanted to be able to document the processes I used to create them, and provide information about how specific elements were created.

I also wanted to produce Sibelius scores containing these elements, from which they could be copied and pasted into another score, rather than having to build each of them from scratch. A PDF file can be generated from the scores to serve as a reference document.

Goals for notational elements

1. They must display and print correctly, and match the original elements as closely as possible
2. They should be easy to create, and easy to reposition, copy, and paste.
3. They should use standard components if possible
4. They should not be disrupted if the score is reformatted.
5. If they have been disrupted, they should be easy to reposition or to recreate.
6. They should have as few separate components as possible
7. If they are integrated with the notes, they should be able to adjust, automatically if possible, if pitches change, notes are added or deleted, or the number of bars in a system changes.

Designing these elements to be used and reused in actively developing scores is different from preparing them for a written book. In a score they will need to adapt to the context in which they are placed, which can change radically each time an element is used. In addition to looking right, they need to be flexible in the moment.

There is some friction between wanting to use standard components, wanting an element to have as few components as possible, wanting the elements to be easy to create, and wanting the appearance to match the printed book. Some compromise is inevitable.

Playing back notational elements

In general, none of the notational elements described here will have a playback effect. If notes are part of the element, those will play as they normally do but none of the symbols will normally affect playback. Playback for many harp elements, such as glissandos will not work without intervention by plugins. You can read up on playback issues in [Notating Music For Harp In Sibelius](#).

The standard components available in Sibelius for creating notation elements

- **Text objects**, which can be formatted with different fonts and font sizes.
- **Symbols**, which have a limited range of sizes, but which can be created from graphics files or font characters, and composite symbols can be made by combining already created symbols.
- **Lines**, whose lengths can be easily changed, and which can be combined with text and symbols to make custom lines
- **Graphics** files, especially SVG format graphics, which can be scaled without becoming pixelated. These can be very powerful, and can be used both as scalable stand-alone objects, and they can also be made into symbols, which can then be combined into other symbols and lines. I don't have expertise in creating graphics this way, and there are currently problems with the way Sibelius Ultimate handles them, so I did not use any for this project.

It would be either impossible or impractical to build these elements described here using only the standard Sibelius **Symbols**, **Lines**, and **Text**. Building composite **Lines** and **Symbols** is a key technique, and even then you will need to acquire some special glyphs, such as those available in the **Norfolk Harp** font, or create a number of such glyphs in a graphics editor, and then import those into Sibelius scores (where they can then be used to build new symbols).

You can build composite lines and symbols to reduce the number of separate objects that make up an element, but it takes time to design and build composites, and in Sibelius they are defined only in the score where you create them. In order to use any custom components in a different score, you need to either export the definitions as a **House Style** or **Manuscript Paper**, or place examples of the components into a score (which I refer to as a **Data Score**) so they can be copied from that score, and pasted into another score. I create data scores in this project to get custom components into other scores.

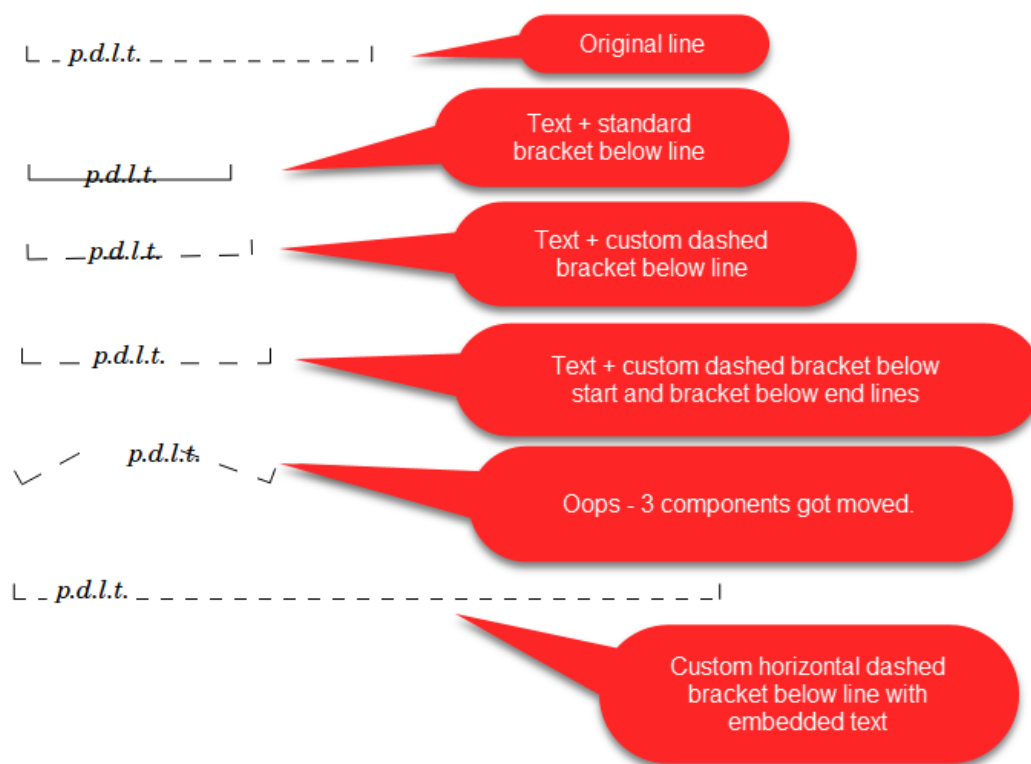
Creating a custom line to be used in a score

The first example in the screenshot below is what we want to have, a dashed bracket with hooks that point up, with text in the line.

- When I look to see what components are available to make this, I find that it is easy to make the italic text as a separate object. I then look at the available lines and see that I have a bracket line, but not a dashed one.
- That is not great, so I create a custom line based on the bracket below line but dashed. I now have a **Text** object and a **Line** object overlapping.
- That is better, but the line runs through the text if I overlap them. I could make the text have **Erase Background** set, but that can introduce a new set of problems, so I create 2 new custom lines that are

dashed, one for the start of the bracket, and one for the end. These look pretty good, but I have 3 objects now, and the lines can rotate in any direction, which is not desirable, as movement of the score might scatter the components.

- I could change the custom lines to be horizontal only, but instead I decide to create a custom horizontal dashed bracket below line, and add the *p.d.l.t.* text and the start of the line, and position it a bit inside the line to match the original, which gives me a very stable line with the look I wanted.



The evolution of a Line element

Now I have a custom horizontal line with the desired text that can change length, and be moved as a single unit. This is good, but if I want to change the text, I need to create another special line. Sometimes that is worth the effort, and sometimes it is easier, and good enough, to use separate **Text** and **Line** objects, and deal with it when the parts get misaligned, but for now I have a working line, and I can put it into a score to be copied, and the next person who wants such a line will not need to go through that process again.

Creating Composite Symbols

One of Sibelius' great strengths is its ability to create new symbols by assembling several existing symbols (which could also themselves be composite symbols) and positioning them relative to each other. The resulting symbol will then appear in the symbol table.

Describing this process is too much for this document, but you can find an ancient but still relevant video tutorial by Daniel Spreadbury, the original Sibelius program manager, here:

<https://www.scoringnotes.com/tutorials/creating-composite-symbols-in-sibelius/>

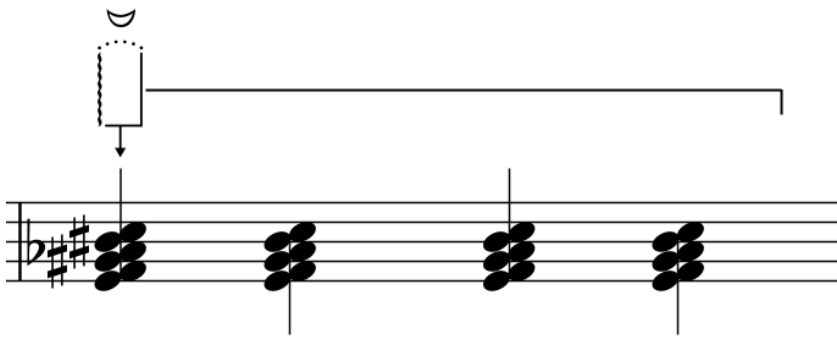
One thing I have noticed when doing a lot of these, is that, due to the limitations of how Sibelius stores object positions, you will sometimes be unable to get symbols to line up perfectly, and they will not look right no matter what you do. If this happens you either need to try using other constituent symbols, or create the object you want as an **SVG** graphics file in an editor such as **Illustrator** or the free **Inkscape**. Such graphics files, if properly set up, can be used to create a symbol.

(Sibelius store positions in units of 1/32 of a space. On a standard 7mm/.28" staff size, this means the minimum position shift is .05mm/.0022 inch, which is pretty small, but enough to make some things not align. Sometimes things will appear not to line up on screen, but will print fine, so it is worth trying to print before you give up.)

Special Harp Graphics

Many pedal harp elements require special graphics, and I had a special font (**Norfolk Harp**) made up that contains a number of the desired symbols. This font is described in **Notating Music For Harp In Sibelius**.

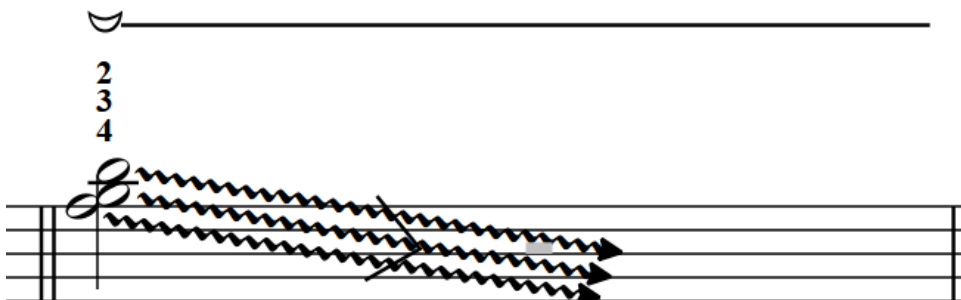
In this example, the **Falling Hail Aeolian Chord**, I use special **Fingernail** and **Descending Aeolian Chord** symbols plus a bracket line. If I thought this would be needed a lot, I could have built a composite symbol from the 2 symbols, and attached that symbol to the start of a bracket above line to make a single element. I would need to do the same for the descending chord, and sometimes it seems not worth the effort to make a special version of each element. Instead, in the score, I explain the components needed for this symbol.



Sometimes too much flexibility is needed in the element to allow us to use a single composite element.

In this example, the **Falling Hail Glissando**, the actual notes could be completely different, and a wiggly line needs to be positioned at the head of each note. The spacing and length of the wiggly lines can change a lot, so they are made from 3 separate Line objects, and for that I had to create a custom arrow line with a wiggly line, because a separate arrowhead symbol would not be able to retain the proper angle relative to the line. These lines need to be able to be positioned at any angle. The fingering numbers would change with the notes, so they are standard **Fingering** Text. I made a custom straight line starting with a fingernail symbol for the top line, though I might have easily used a separate symbol and line there, and the "arrowhead" lines in the middle of the wiggly lines also need to be adjustable, so they are just 2 short straight lines, tilted and dragged into place.

Besides the notes, there are 7 separate objects in this element. If you want to move it, you need to select all the components at once, or they will scatter to the winds and you will need to spend time reassembling it.



Very few of the elements in this project could be build from a single symbol. Most require some form of a line to adjust to the size of a bar, or to encompass a set of notes.


Special Layout of the Data Scores used to create pastable examples

For this project, I created the elements for each group in Yolanda's book in a separate Sibelius score. My intention was to make each element easily selected so it could be copied from my "data score" into a regular Sibelius score. While many of the elements require custom symbols or lines which will likely not be defined in your own score, in Sibelius, copying a custom object transfers its definitions to the new score, so they will look right when they are pasted.

Each element in the score is presented on a system by itself, and there are at least 2 bars in each system. In the first bar is the element name, and a description of the components used to create the element. The element itself is in the 2nd bar of the system, and sometimes in more than one bar, so you can select entire bars and you will pick up all the components. There may be additional bars in the system, to make the spacing of the notes look more pleasing.

4 **Nail effect** Full Score

Custom **Nail effect line** line with leading symbol.
Standard fingering text.



An example from the "data scores". The description is in the first bar, the notation element is in the second bar, and there is an additional bar in the system to keep the width of the second bar reasonable.

Copying and pasting into another score

The elements in the data scores are put into their own bars, with nothing else in that bar, so that you can click in the bar and make a passage (blue or purple box) selection, then copy and paste into another score.

When you paste music onto existing music in Sibelius, especially when there is a passage selection, the original music will get overwritten, which is probably not what you wanted.

Where possible, paste into open space, rather than pasting directly into a staff, to avoid having the pasted material overwrite the music in the destination bars. You can then move the element into place.

If you have to paste into a staff (which will happen if the element contains notes), try creating an empty bar and paste into that, again to avoid overwriting. Once the element is in your new score it is easier to manipulate without danger of overwriting.

If you select each element component individually, and then copy and paste, the paste is more likely to merge with the music in the destination rather than overwriting. That is tedious, however. You can use the Sibelius plug-in **Filter All**, and then run it on a passage selection, and it will turn the passage selection into a set of separately selected components. You can then copy the resulting selection, and paste it with fewer problems.

Adjusting notational elements for their context

Many of these elements are adjustable, and you will often need to change lengths of lines or positions of components to match the music you are pasting into.

In most cases, Magnetic Layout for the components is turned off, so you can drag the components where ever you want.

Take your time. It is often useful to zoom in close to be sure the components are properly aligned. If you change layout radically, such as changing the number of bars in a system or systems on a page, you may need to readjust some elements, especial those that include lines. Be sure to proofread the positions of the elements after all other formatting is done.

Conclusion

My intention is to make the data scores available to anyone with Sibelius 7 or later, and a PDF from the scores will also be available to serve as a printed reference.

In the scores, I have created elements for each of the elements in the **Special Effects** chapter in **The Composer's Guide to Writing Well for the Modern Harp**. Not all of them are a perfect match, but they are usually pretty close, and should be at least recognizable. I hope they can be useful, and can provide a framework for creating your own custom elements.