How to use the Scale Notehead Size plugin in Sibelius

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Philip Rothman wrote an article in the Sibelius Blog about changing the sizes of noteheads in Sibelius and Finale (http://www.sibeliusblog.com/tutorials/make-certain-noteheads-smaller-or-larger/). In the article he showed that while it is possible to change notehead sizes in Sibelius it is a daunting task, whereas it is fairly easy to do in Finale.

In Sibelius you would need to create a Music Text font with a different size, then define 4 notehead symbols, and a Notehead Style, and then apply the Notehead Style to selected notes. Philip explains the steps nicely in his article.

I wanted to come up with a way to make it easier to do this in Sibelius, and so I wrote this plugin. It will run in Sibelius versions 6, 7, and 7.5.

Why you might want it

You will not likely need this plugin very often. One can use the Small Notehead Style to get a smaller note, and can apply Cue Note sizing to reduce a note size (or enlarge it, if you change the Cue Note scaling factor). So the plugin will mostly be useful only if you want a notehead that is a little bigger or smaller than the normal noteheads.

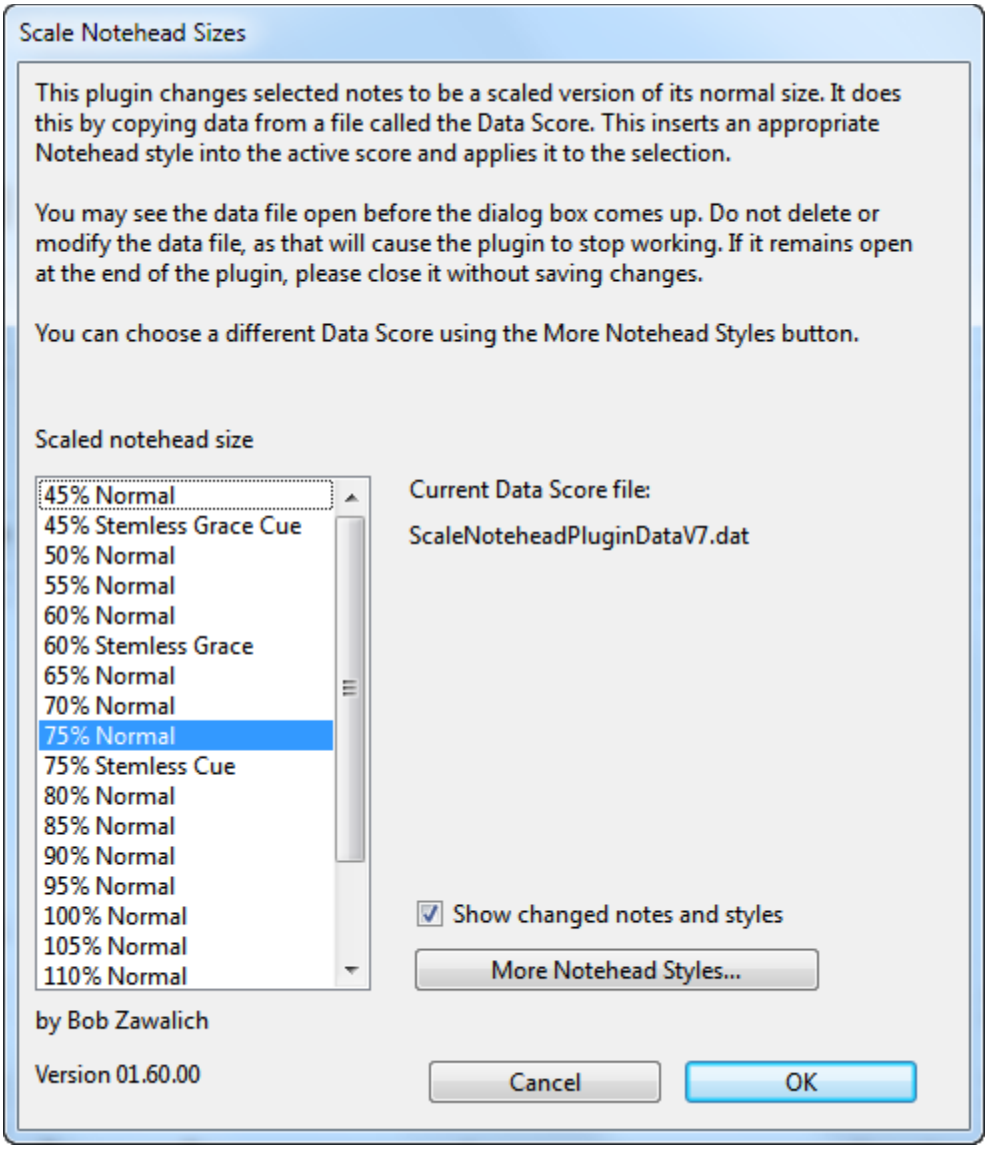
Three interesting available sizes

The percentage 75% is the default size for a cue-sized note. 60% is the default size for a grace note, and 45% is the size of a grace note to which cue-sizing has been applied. Cue Note sizing can be applied to any of these notehead sizes to make more size options.

What it does

When you run the plugin you will see a listbox containing scaled notehead sizes. To create a notehead in that size in your score, select a size from the listbox and hit OK. If you had selected notes in the target score before running the plugin, those notes will be changed to use the new notehead.

This is really all you need to know about using the plugin: install it, run it, choose a percentage and hit OK. The rest of this document is details about how it works and how you can modify its behavior.



How does it work?

Conceptually, I would want the plugin to apply a Notehead Style to selected notes, but a plugin cannot define a Notehead Style, so it has to find one that has already been set up. One way that a plugin could do this would be to import a House Style containing the desired Notehead Styles, but that has a number of problems. One is that importing a House Style will import more than the Notehead Style – it will at least import the notehead symbols as well, and possibly some other data that can change the formatting. There is a small limit (64) to the total number of Notehead Styles a score can hold, and importing the full set of Notehead Styles would likely overflow that limit. We could use a separate House Style for each notehead, but that requires a lot of files, and is awkward to update.

Instead, the plugin takes advantage of a somewhat unexpected feature of Sibelius.

In Sibelius, if you copy something from one score and paste it to another, the style from the original score will be pasted into the score as well. The plugin provides a “data score”, which gets installed in the same folder where the plugin is installed. When you run the plugin, it opens the data score and extracts information about which noteheads are available. It puts these sizes into the plugin dialog’s listbox for you to choose.

Once you select a size, the plugin finds the appropriate notes in the data score, copies them, and then pastes them into your score (in a bar the plugin adds at the end of your score). The plugin then deletes the notes and bars it has added, and the Notehead Style and notehead symbols will be defined in your score, and you can use it like any other Notehead Style.

The plugin then apples the imported Notehead style to any selected notes.

Please note that if the selection contains notes with multiple notehead styles, all the notes will all be changed to the chosen notehead style. So you probably do not want to make such a selection.

The Data Score

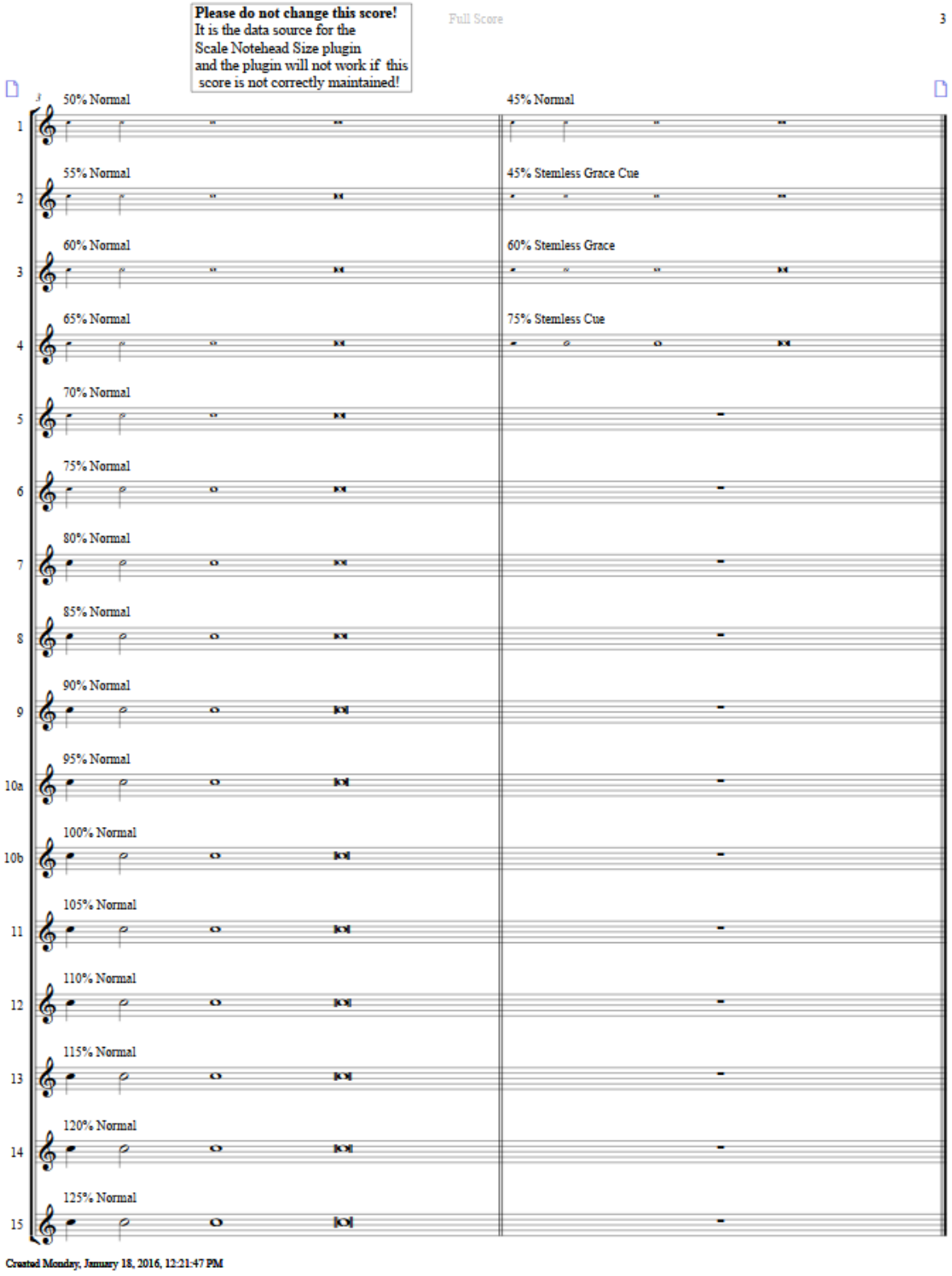
The plugin zip file contains the plugin, this document, and 2 data scores. One data score is for Sibelius 6, and the other is for Sibelius 7 and later. The Sibelius 6 file is called ScaleNoteheadPluginDataV6.dat, and the Sibelius 7 file is called ScaleNoteheadPluginDataV7.dat.

In Sibelius 7 or 7.5, the plugin installer will install the plugin, and put its data score (and the Sib 6 data score, which can be ignored or deleted) into the same folder where the plugin is installed, and put this document into a folder of Sibelius plugin documents.

In Sibelius 6, you will need to download and unzip the zip file, install the plugin, and copy ScaleNoteheadPluginDataV6.dat into the same folder where the plugin is installed. Ignore the Sib 7 data score. (Both data files are actually Sibelius scores, but the .dat extension lets the Sibelius 7 plugin installer put the file in a known location).

Once the data file is installed, do not delete, rename it, or change it (unless you know how).

The data score is just a Sibelius score that contains notes and some descriptive text. It starts with 2 blank pages (to prevent unintended score changes), and then a page that looks like this:



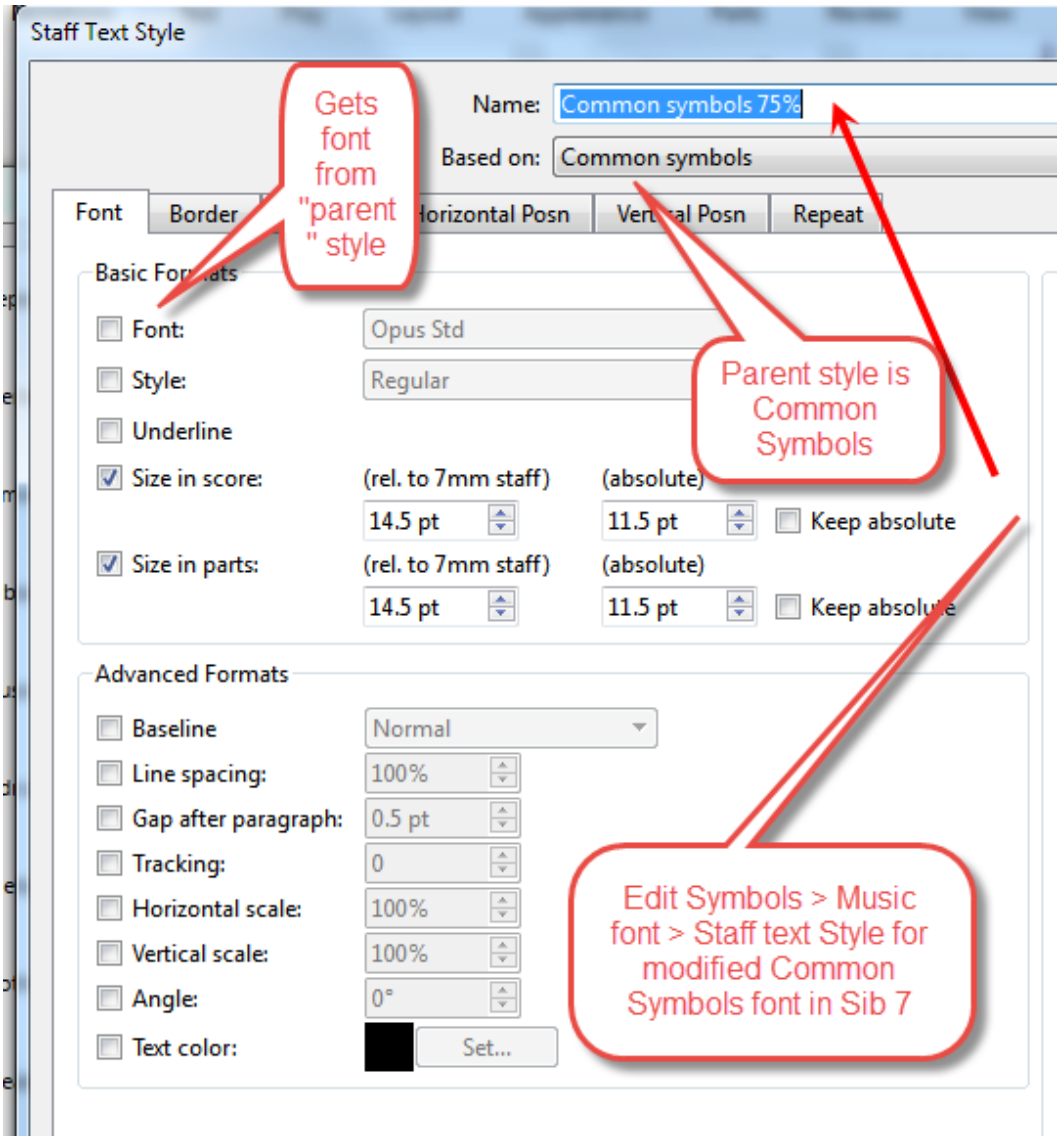
Each instrument staff has 1 bar of size 15/4 containing the 4 noteheads used in a Notehead Style for a specific size, and the plugin will choose the bar it wants, select the notes, copy them, and then paste them into your score. It then deletes the notes so there will be no visible change to your score unless you selected notes of which you want to change the size.

The styles defined in the provided data scores are percentages of the normal notehead size, and go from 45% to 125% in steps of 5 percent.

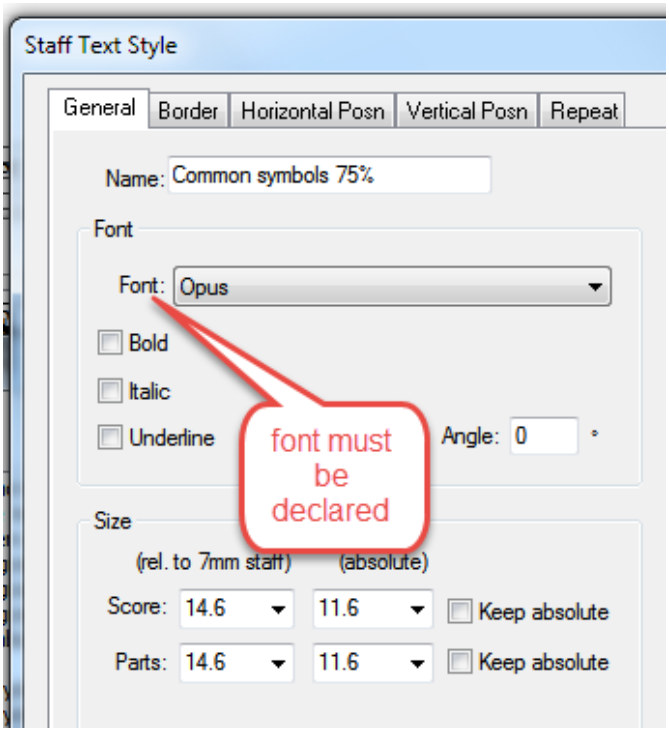
Differences in the data score in Sib 7 and earlier versions.

This plugin really works better in Sibelius 7 than in earlier versions, especially if you are not using Opus for your notehead font. If you are using Opus, the plugin works great in Sib 6, otherwise it requires some tweaking.

In Sibelius 7 there is a new feature that lets a text style inherit properties from other text styles, and in the data score for Sibelius 7, the scaled versions of the Common Symbols text style derive properties, including the font, from the Common Symbols style. This lets these styles adopt a new font automatically when the Music Text font changes. (Thanks to Philip Rothman who pointed this out to me).



In Sibelius 6, there is no inheritance, and a font must be declared for each style. For the provided data scores, Opus font is used. Even if the music font changes, the new noteheads will use Opus font.



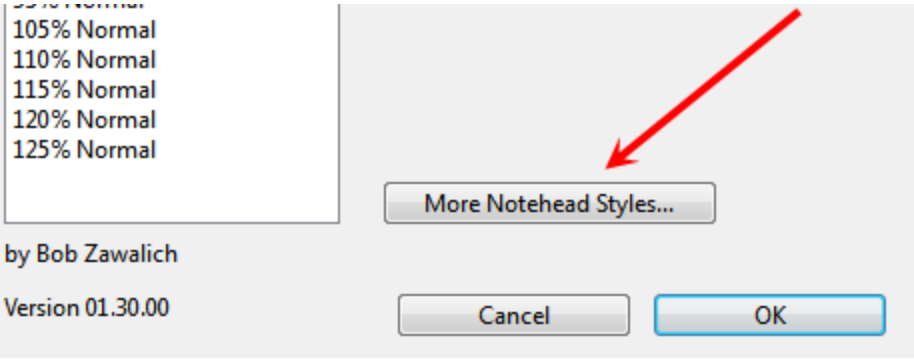
Prior to Sibelius 7, if you want to use a different music font, say *Inkpen*, then you can do one of 2 things. You can run the plugin on a score, and then go to the Music Fonts page of the Edit Symbols dialog (as seen above) in that score, and change the font to *Inkpen* for any imported Notehead Styles. This will change the font for this score only, though you can export a House Style with the changed styles and import that into other scores.

You could instead edit the data score so that its styles are based on *Inkpen* font. This is possible but tricky, and you should keep a backup of the original data score in case something goes wrong.

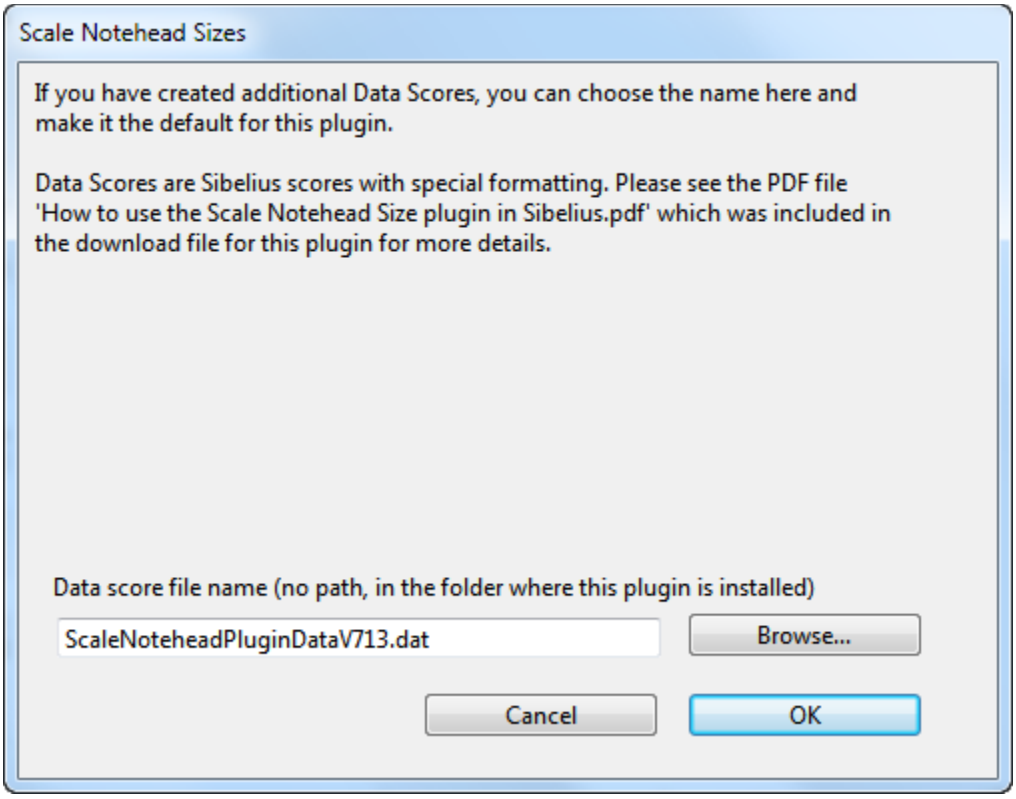
Editing the Data Score (this should be rarely needed)

There are 2 good reasons to edit the data score. The first is to add additional custom sizes or even custom shapes. The other is to change the font used for the noteheads, especially for Sibelius 6.

You can make edits to the shipping data score, but if you plan to change a lot of settings in the data score, you can make a copy of that score, and then make the changes to the copy of the score. Save the score to the same folder where the plugin is installed, and close it. Then when you run this plugin, change the data score by choosing the *More Noteheads...* button.



Which brings up this dialog:



- *Creating a Data Score*

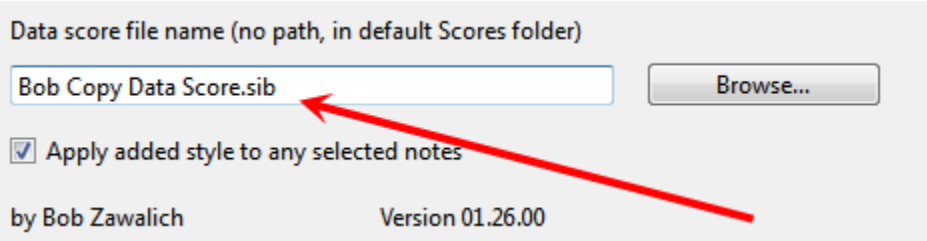
A data score has a very specific format: it has at least 3 bars, each of size 15/4, with one or more bars on each of its pages. The notes will be entered starting in bar 3 on page 3. Each notehead is defined on a different staff. While the bar does not actually need 4 notes, using the quarter, half, whole, and double whole notes lets you see what the noteheads look like. As long as there is at least 1 notehead in the bar, the plugin can copy the style to another score.

For each staff, the bar containing the notes needs to have a piece of Technique text attached to the first note in the bar. The text must be the name of the Notehead Style in that bar, spelled the same and in the same case.

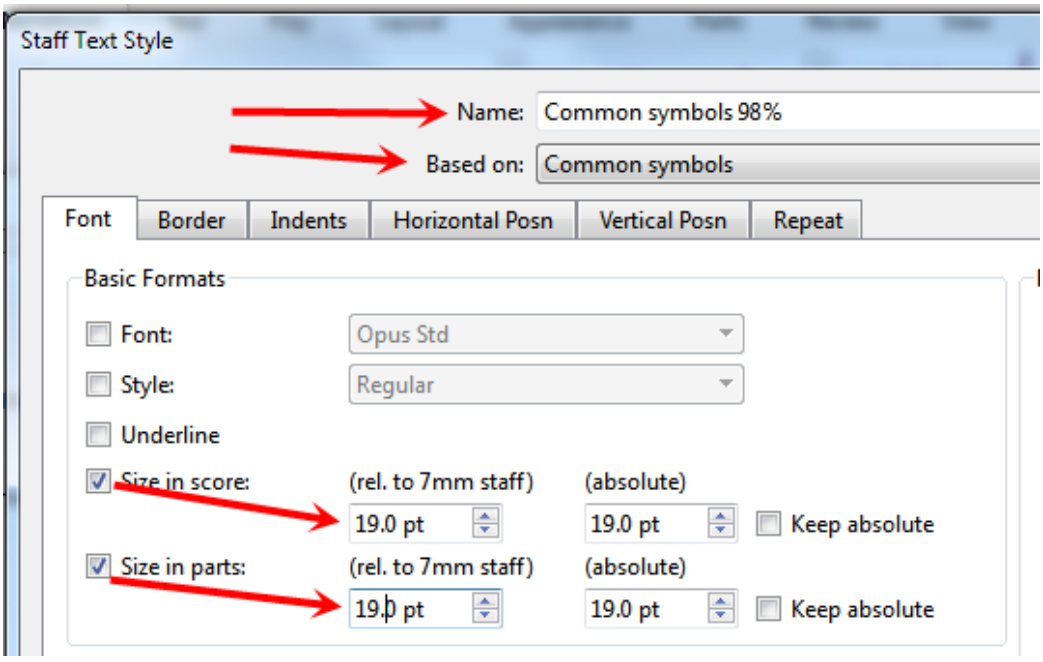
Files that do not follow this structure will not be recognized as data scores by the plugin. One way to ensure the correct format is to copy and change a data score that works.

- *Editing existing noteheads*

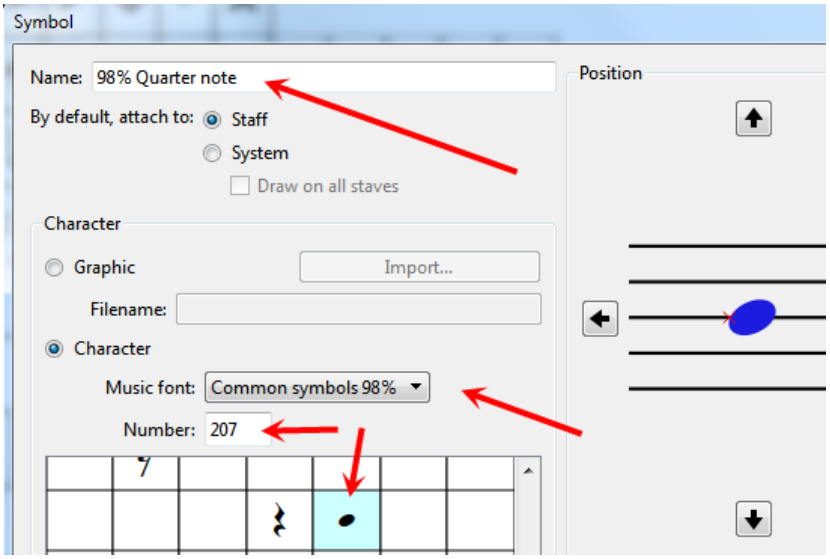
This is pretty simple. Open your data score in Sibelius and make any changes you need to make, such as changing the percentages used for the Music Font or the notehead name or symbols. Save and close the data score. When you run Scale Notehead Sizes, choose your copied data file name in the dialog. Sibelius will remember to use that file in future runs until you change it.



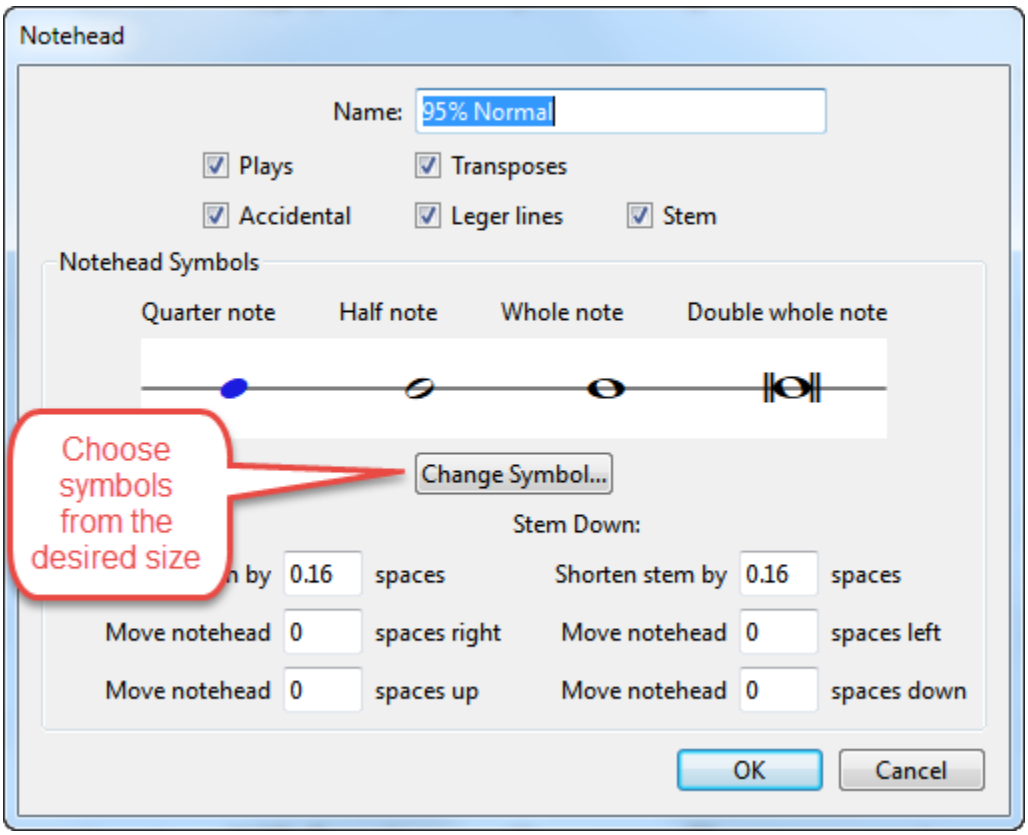
- *Adding a new scaled notehead*
  - *Be aware that there is a limit of 64 notehead styles in a score, so be sure the number of any added notehead styles is not greater than 63.*
  - Add a new flute (or other single staff) instrument, and move it to the bottom of the score, or use an empty bar in another staff if available.
  - Copy all notes and text from an existing bar into the new bar.
  - Change the Technique text to be the name of your new Notehead Style.
  - Define the new Notehead Style (see Philip's blog post for more details). To make a Notehead Style with a different percentage:
    - In Edit Symbols > Music Fonts create a new music font based on Common Symbols. Change the size of the font to be the desired percentage. Appendix A gives fonts sizes for a scaled 19.5 point from 1% to 125%, appropriately rounded.
    - Assuming the noteheads are the same shape as the ones of a different size, go to Edit Symbol and make new symbols based on the same notehead, for all 4 notehead sizes, based on your new music font.
    - As an example, for a 98% scaling, start with a normal (100%) note size, which is typically 19.5 points. Looking in Appendix A, we see for 98%, the value should be 19.0. Observe that, due to rounding ,some percentages, such as 99%, will not yield unique sizes (99% produces the same size as 100% and 101%).
    - The text style will look like this:



- One of the symbols created for a notehead style will look like this:



One of the notehead styles could look like this (example from the 95% notehead):



- Select the notes in your new bar and apply the new Notehead Style to them.
- Save the data score and close it.

That should pretty much be all that you would want to do with the data score, and with luck you will never actually need to do it because the default sizes will likely handle any notehead size changing you will need to do.

Appendix 1: Table of scaled font sizes in points starting from a 19.5 point font (1% to 125%)

This is a list of 19.5 points scaled by percentages and rounded to 2 places, then rounded to nearest half point (Sibelius rounds to half points when you enter a font size in the Edit Symbol > Music Fonts >Staff text Style dialog, so the data score is set up the same way).

Note that multiple percentages will round to the same number.

1% = 0.20. Rounded to nearest .5 = 0.0
2% = 0.39. Rounded to nearest .5 = 0.5
3% = 0.59. Rounded to nearest .5 = 0.5
4% = 0.78. Rounded to nearest .5 = 1.0

5% = 0.98. Rounded to nearest .5 = 1.0

6% = 1.17. Rounded to nearest .5 = 1.0
7% = 1.37. Rounded to nearest .5 = 1.5
8% = 1.56. Rounded to nearest .5 = 1.5
9% = 1.76. Rounded to nearest .5 = 2.0

10% = 1.95. Rounded to nearest .5 = 2.0

11% = 2.15. Rounded to nearest .5 = 2.0
12% = 2.34. Rounded to nearest .5 = 2.5
13% = 2.54. Rounded to nearest .5 = 2.5
14% = 2.73. Rounded to nearest .5 = 2.5

15% = 2.93. Rounded to nearest .5 = 3.0

16% = 3.12. Rounded to nearest .5 = 3.0
17% = 3.32. Rounded to nearest .5 = 3.5
18% = 3.51. Rounded to nearest .5 = 3.5
19% = 3.71. Rounded to nearest .5 = 3.5

20% = 3.9. Rounded to nearest .5 = 4.0

21% = 4.10. Rounded to nearest .5 = 4.0
22% = 4.29. Rounded to nearest .5 = 4.5
23% = 4.49. Rounded to nearest .5 = 4.5
24% = 4.68. Rounded to nearest .5 = 4.5

25% = 4.88. Rounded to nearest .5 = 5.0

26% = 5.07. Rounded to nearest .5 = 5.0
27% = 5.27. Rounded to nearest .5 = 5.5
28% = 5.46. Rounded to nearest .5 = 5.5
29% = 5.66. Rounded to nearest .5 = 5.5

30% = 5.85. Rounded to nearest .5 = 6.0

31% = 6.05. Rounded to nearest .5 = 6.0

32% = 6.24. Rounded to nearest .5 = 6.0
33% = 6.44. Rounded to nearest .5 = 6.5
34% = 6.63. Rounded to nearest .5 = 6.5

35% = 6.83. Rounded to nearest .5 = 7.0

36% = 7.02. Rounded to nearest .5 = 7.0
37% = 7.22. Rounded to nearest .5 = 7.0
38% = 7.41. Rounded to nearest .5 = 7.5
39% = 7.61. Rounded to nearest .5 = 7.5

40% = 7.8. Rounded to nearest .5 = 8.0

41% = 8.00. Rounded to nearest .5 = 8.0
42% = 8.19. Rounded to nearest .5 = 8.0
43% = 8.39. Rounded to nearest .5 = 8.5
44% = 8.58. Rounded to nearest .5 = 8.5

45% = 8.78. Rounded to nearest .5 = 9.0

46% = 8.97. Rounded to nearest .5 = 9.0
47% = 9.17. Rounded to nearest .5 = 9.0
48% = 9.36. Rounded to nearest .5 = 9.5
49% = 9.56. Rounded to nearest .5 = 9.5

50% = 9.75. Rounded to nearest .5 = 10.0

51% = 9.95. Rounded to nearest .5 = 10.0
52% = 10.14. Rounded to nearest .5 = 10.0
53% = 10.34. Rounded to nearest .5 = 10.5
54% = 10.53. Rounded to nearest .5 = 10.5

55% = 10.73. Rounded to nearest .5 = 10.5

56% = 10.92. Rounded to nearest .5 = 11.0
57% = 11.12. Rounded to nearest .5 = 11.0
58% = 11.31. Rounded to nearest .5 = 11.5
59% = 11.51. Rounded to nearest .5 = 11.5

60% = 11.7. Rounded to nearest .5 = 11.5

61% = 11.90. Rounded to nearest .5 = 12.0
62% = 12.09. Rounded to nearest .5 = 12.0
63% = 12.29. Rounded to nearest .5 = 12.5
64% = 12.48. Rounded to nearest .5 = 12.5

65% = 12.68. Rounded to nearest .5 = 12.5

66% = 12.87. Rounded to nearest .5 = 13.0
67% = 13.07. Rounded to nearest .5 = 13.0
68% = 13.26. Rounded to nearest .5 = 13.5
69% = 13.46. Rounded to nearest .5 = 13.5

70% = 13.65. Rounded to nearest .5 = 13.5

71% = 13.85. Rounded to nearest .5 = 14.0
72% = 14.04. Rounded to nearest .5 = 14.0
73% = 14.24. Rounded to nearest .5 = 14.0
74% = 14.43. Rounded to nearest .5 = 14.5

75% = 14.63. Rounded to nearest .5 = 14.5

76% = 14.82. Rounded to nearest .5 = 15.0
77% = 15.02. Rounded to nearest .5 = 15.0
78% = 15.21. Rounded to nearest .5 = 15.0
79% = 15.41. Rounded to nearest .5 = 15.5

80% = 15.6. Rounded to nearest .5 = 15.5

81% = 15.80. Rounded to nearest .5 = 16.0
82% = 15.99. Rounded to nearest .5 = 16.0
83% = 16.19. Rounded to nearest .5 = 16.0
84% = 16.38. Rounded to nearest .5 = 16.5

85% = 16.58. Rounded to nearest .5 = 16.5

86% = 16.77. Rounded to nearest .5 = 17.0
87% = 16.97. Rounded to nearest .5 = 17.0
88% = 17.16. Rounded to nearest .5 = 17.0
89% = 17.36. Rounded to nearest .5 = 17.5

90% = 17.55. Rounded to nearest .5 = 17.5

91% = 17.75. Rounded to nearest .5 = 18.0
92% = 17.94. Rounded to nearest .5 = 18.0
93% = 18.14. Rounded to nearest .5 = 18.0
94% = 18.33. Rounded to nearest .5 = 18.5

95% = 18.53. Rounded to nearest .5 = 18.5

96% = 18.72. Rounded to nearest .5 = 18.5
97% = 18.92. Rounded to nearest .5 = 19.0
98% = 19.11. Rounded to nearest .5 = 19.0
99% = 19.31. Rounded to nearest .5 = 19.5

100% = 19.5. Rounded to nearest .5 = 19.5

101% = 19.70. Rounded to nearest .5 = 19.5
102% = 19.89. Rounded to nearest .5 = 20.0
103% = 20.09. Rounded to nearest .5 = 20.0
104% = 20.28. Rounded to nearest .5 = 20.5

105% = 20.48. Rounded to nearest .5 = 20.5

106% = 20.67. Rounded to nearest .5 = 20.5
107% = 20.87. Rounded to nearest .5 = 21.0
108% = 21.06. Rounded to nearest .5 = 21.0
109% = 21.26. Rounded to nearest .5 = 21.5

110% = 21.45. Rounded to nearest .5 = 21.5

111% = 21.65. Rounded to nearest .5 = 21.5
112% = 21.84. Rounded to nearest .5 = 22.0
113% = 22.04. Rounded to nearest .5 = 22.0
114% = 22.23. Rounded to nearest .5 = 22.0

115% = 22.43. Rounded to nearest .5 = 22.5

116% = 22.62. Rounded to nearest .5 = 22.5
117% = 22.82. Rounded to nearest .5 = 23.0
118% = 23.01. Rounded to nearest .5 = 23.0
119% = 23.21. Rounded to nearest .5 = 23.0

120% = 23.4. Rounded to nearest .5 = 23.5

121% = 23.60. Rounded to nearest .5 = 23.5
122% = 23.79. Rounded to nearest .5 = 24.0
123% = 23.99. Rounded to nearest .5 = 24.0
124% = 24.18. Rounded to nearest .5 = 24.0

125% = 24.38. Rounded to nearest .5 = 24.5