

The Dynamics with Hairpins plugin

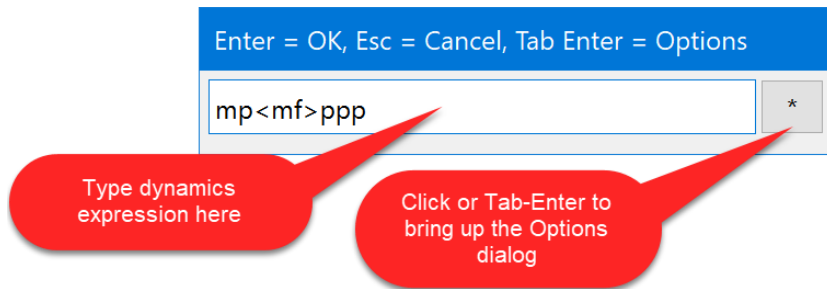
Bob Zawalich November 30, 2022

This plug-in adds crescendo and/or diminuendo lines and optional Expression text to a passage selection.

The input dialog

This is an attempt to make the User Interface for this plugin as simple as possible.

If you run the plugin with a passage selection you will see this dialog.

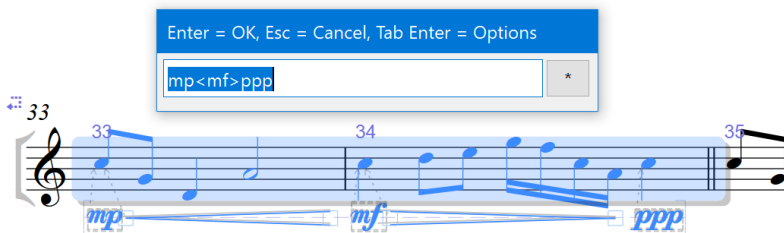


Type a **Dynamics Expression**, which is any combination of the characters < (Crescendo) and > (Diminuendo), and any Dynamics Text, into the edit box. Dynamics Text would normally be some combination of the letters **p**, **f**, or **m**, but the plugin will not validate the text. You can type whatever you want, but only valid dynamics text will display and play back correctly. You can type up to 2 hairpin characters and up to 3 text **elements**. Spaces at the start or end of elements are ignored.

The generated text will be **Expression** text with **Music Text** character style (bold and italic), and you can type \c\ to shut off the character style.

Once you type in the text you want, press Enter to OK the dialog, or Esc to cancel it. (There are no visible ok or Cancel buttons, so there is no mouse interface for OK/Cancel).

The text and hairpin lines will be added centered below the selection:



The Options dialog

This dialog comes up if you run the plugin with when there is no selection. You can also type **Tab**, then **Enter** in the **Input** dialog, or click on the * button to bring up the **Options** dialog.

You can make changes to the plugin options here, and they will be remembered across Sibelius sessions.

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This plug-in adds crescendo and/or diminuendo lines and optional Expression text to a passage selection. This dialog will appear if you press the * button in the input dialog or run the plugin with no selection.

Type in Expression Text and up to 2 "<" or ">" characters, representing hairpins, if desired. If there is no text, only the lines will appear. Text elements will get Expression style with the Music Text character style. To turn off Music Text style for a portion of a text field, type \c\ before that text. Type \text.character.musictext\ to restore the Music Text style.

If there are at least as many notes in the selection as the number of "elements" in the text, the plugin will try to align text to selected notes. If there are not enough notes, the plugin will lay out the elements without aligning to notes.

You may need to adjust horizontal spacing using arrow keys.

Line style for crescendo <
 Crescendo

Line style for diminuendo >
 Diminuendo

Position of final text element
☒ At start of final selected note
☐ At end of final selected note

Ticks between elements
 32
 (default 32 ticks = 32nd note)

☒ If first element is a hairpin, set its X offset to zero

Cancel OK

- Choose the Line style used for any **Crescendo** and **Diminuendo** lines in an expression. This list will contain any versions of Cresc/Dim lines defined in the score.
- If the **Dynamic Expression** contains at least one hairpin and ends with text, you can choose whether the final text element is aligned with the start or the end of the final selected note.
- Elements are all drawn starting at different rhythmic beat positions. You can specify the number of ticks used to separate elements, but it is best to keep the separation small.
- If the first element is a hairpin, the default X position moves it away from the first note. If you set its X offset to 0, the line will align with the start of the note. That position will be reset if Reset Position is used.

How a Dynamics Expression is laid out in the score.

The < and > characters will be replaced by **Crescendo** and **Diminuendo** lines, whose style is determined in the **Options** dialog.

Two different layout algorithms can be used. The first choice requires that there are at least as many selected notes as elements in the typed text, and this algorithm aligns each non-hairpin element with a note.

If there are fewer selected notes than the number of elements in the **Dynamics Expression**, the plugin falls back to a simpler layout algorithm, which will try to space out the elements without aligning to notes. It is not as good at spacing, and you will be warned if this algorithm is used.

For example, to produce the best layout for the expression **mm<mf>ppp**, which has 5 elements (3 text elements and 2 hairpin elements) the selection needs to include at least 5 notes.

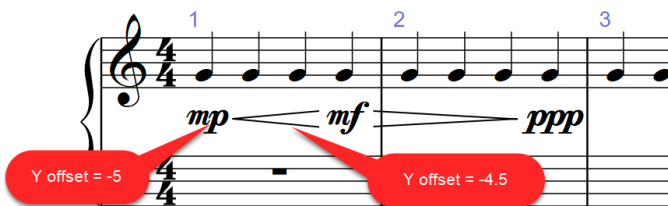
The plugin works best if there is a lot of space for it to work in. If the spacing is very tight, the hairpin lines are likely to disappear.

This plugin will process multi-staff selections. It will treat each **visible** staff in the selection separately and will skip hidden staves.

Troubleshooting

The vertical positions of the hairpins and **Expression** text is controlled by the settings for the text and line styles in **Appearance>Design and Position**.

The current defaults of -5 spaces for Expression Text and -4.5 for Cresc/Dim lines will keep the text and lines aligned vertically. If you have vocal staves, the text and lines may appear above the staff. Do not use **Align In Row** to align these, since the text and lines have different vertical offsets, and they would be set to the same number.



Sometimes the spacing of text and hairpins will need adjusting, especially if the text has multiple characters. Select the text and use the X offset in the **Inspector** to move them where you want them to go, without changing their attachment points. If you make this kind of change, **Reset Position** will put the text back to its original X offset, but **Reset Note Spacing** will not affect the text/hairpin spacing.



Example Output for Dynamics With Hairpins

This score contains examples of expressions for each legal combination of text and hairpins*. Each pattern was run on a 2-bar selection, each separated with a double barline. The text above each example (such as **t1h1**) describes the number of text and hairpin elements in the expression.

In these examples, the final text element aligns with the start of the final note, and if the expression starts with a hairpin, the line's X offset is set to zero.

Test Dynamics With Hairpins

1

Flute

The musical score for Flute is written in 4/4 time. It consists of six systems of music, each with a hairpin and dynamic markings. The dynamics range from ppp to fff.

System 1: *ppp* (t2)

System 2: *mf* (t1h1) to *ff* (h1t2)

System 3: *ppp* (h1h2) to *ppp* (t1h1h2)

System 4: *mp* (t1h1t2) to *p* (h1t2h2)

System 5: *mf* (h1h2t3) to *f* (t1h1t2h2)

System 6: *fff* (t1h1t2h2t3) to *p* (t1h1t2h2t3)

Thanks to Ilkay Bora Oder, Robin Walker, and Michele Galvagno for suggestions, feedback, and testing of this plugin.

Dynamics With Hairpins can be installed directly through Sibelius 7 and higher at **File > Plug-ins > Install Plug-ins > Lines**. Users may also install it manually in Sibelius 6 or higher by visiting the [plug-in download page](#) and following the [usual manual installation procedure](#), or by using the [Install New Plug-in plug-in](#).

*Appendix: Legal Combinations of Text and Hairpin Elements

Some combinations, such as **tt** will never appear, because a text element is only terminated by a hairpin or the end of the string. There can be at most 2 hairpin (h) elements in a pattern.

Pattern	Example
t	ppp
h	>
th	mf>
ht	<ff
hh	<>
thh	ppp<>
tht	mp<mf
hth	>p<
hht	><mf\c\ sub.
thth	ff>mp<
thht	mf><f
htht	<mf<f
thtth	fff>mf>p