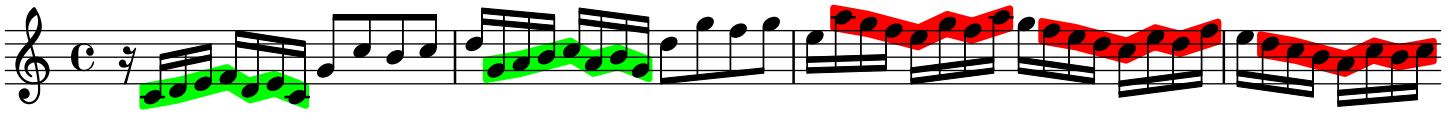
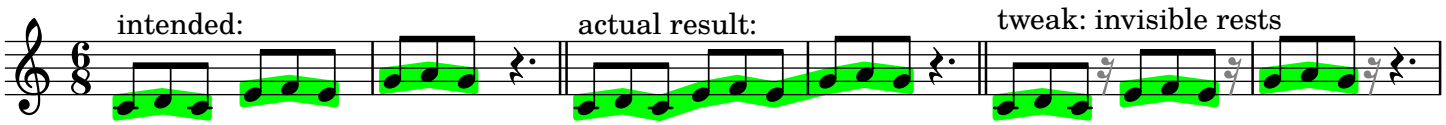
Highlighters - Showcase

The `highlighters` module of `anaLYsis` provides a tool to colorize subsequent noteheads as it would be done with a textmarker on paper.

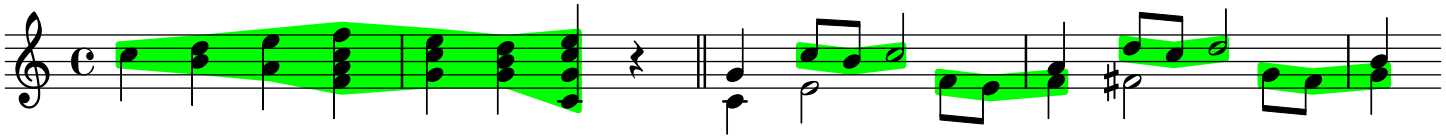
```
\relative c' {r16 \highlight { c d e   f d e c} g'8 c b c ...
```



Internally this is done by applying LilyPond's `\makeClusters` command to the given music expression. Therefore two highlighted passages in the same voice will melt into one as long as they are not separated by a rest or a (non-highlighted) note.



To avoid unexpected results, the highlighted passage should not contain multiple voices. However, it is possible to have chords in the melody. Also, multiple voices appearing at the same time can *contain* highlighted passages.



Appearance:

The appearance of the highlighting can be specified either persistently with openLilyLib options in the `\setOption analysis.highlighters` tree or individually by overriding properties in a `\with {}` block (for details see below).

Activate:

`active` (default: ##t)

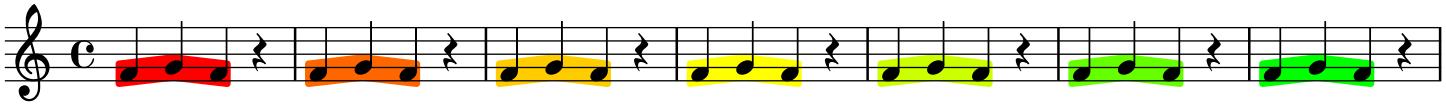
With `\setOption analysis.highlighters.active ##f` it is possible to - globally or within the music - suppress the application of highlighters.

Note that this works within music expressions as well as with toplevel expressions. This means that you have to take care of switching highlighting back on if you disable it within a music expression. The effect of the setting will be visible throughout the whole following LilyPond input, even in subsequent scores.

Options:

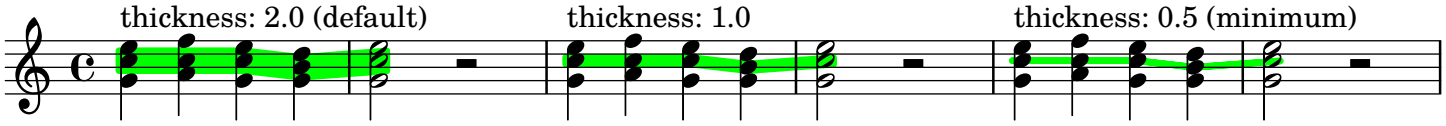
`color` (default: #green)

Any color can be assigned.



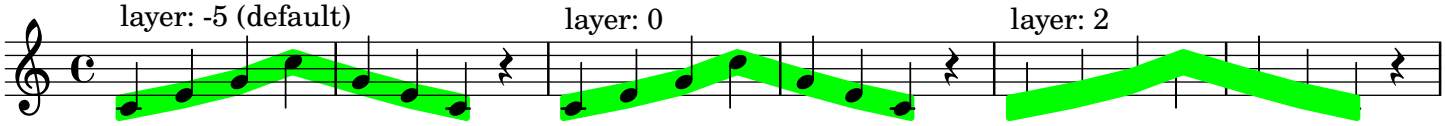
thickness (default: #2.0)

The thickness of the highlighting line, measured in staff-spaces, can be adjusted. The minimal value is 0.5 (This is caused by the behavior of the `ClusterSpanner` grob). Smaller values will be set to 0.5 which will be indicated by a compiler warning.



layer (default: #-5)

The `layer` property allows detailed control over the stacking of elements. With values above 1 the highlightings would cover the staff lines and notes, therefore the value should always be below zero. By default, `layer` is set to -5 which is between *anaLYsis'* frames and the staff with its contents.

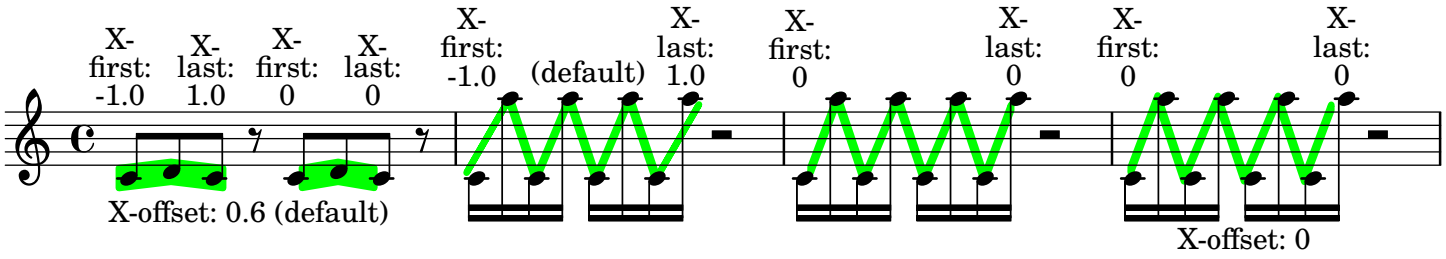


X-first (default: #-1.0)
X-last (default: #1.0)
X-offset (default: #0.6)

The beginning and the end of the highlighted area can be shifted horizontally by modifying the `X-first` and `X-last` properties. By default, there is an offset to the left for the first note and an offset to the right for the last note. In most cases, this helps to have the entire note head covered by the highlighed area.

However, in some cases (e.g. large intervals or small `thickness` values) it can look better to set these values to zero.

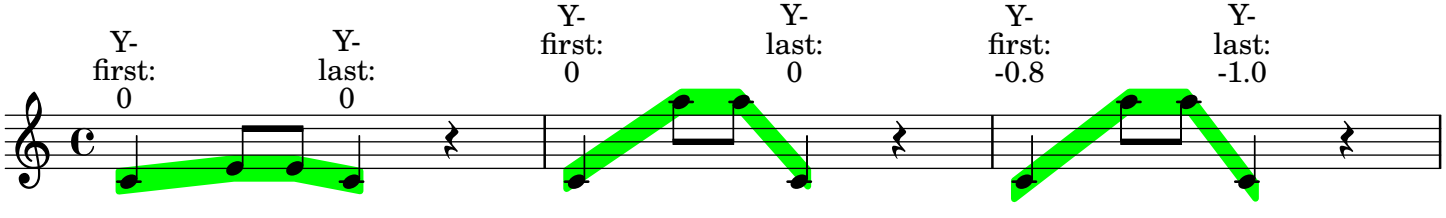
The `X-offset` property controls a general shift to the right for the entire highlighting. By default it is set to 0.6 to have the highlightings aligned to the center of the note heads. Usually there should be no need to change this setting.



Non-zero values of `X-first` and `X-last` can have an unwanted side effect: They can move the highlighted area away from the first or last notehead when covering large intervals. This can be compensated using the following properties:

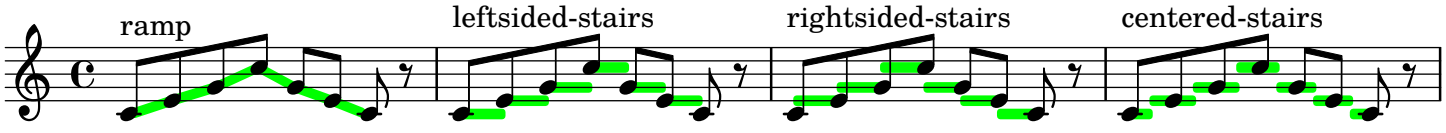
Y-first (default: #0)
Y-last (default: #0)

These properties allow to manually move the beginning and the end of the highlighted area in vertical direction. Negative values will move the beginning/end down, positive values will move it up.



`style` (default: #'ramp)

The visual appearance of the highlighted area is controlled by the ClusterSpanner grob which offers four different styles: `ramp`, `leftsided-stairs`, `rightsided-stairs` and `centered-stairs`.



In most cases (e.g. if a motif is marked) the default `ramp` style will be the best choice. Eventually there might be some cases where another style can be useful, e.g. for illustrating the pitch of long sustained notes in a counterpoint context: