Scoring applications may choose to create e.g. *ottava alta* and *ottava bassa* versions of the G clef and F clef by combining gClef and fClef with clef8 and clef15 rather than using the precomposed glyphs.

The basic G clef, F clef and C clef symbols can be positioned at different vertical positions relative to the staff as required (e.g. the C clef can be positioned to create an alto or tenor clef).

Clef changes are normally drawn at two-thirds the size of clefs at the beginning of the system[[1]](#footnote-1), but different publishers and engravers may prefer to use a different size. Dedicated glyphs for drawing a clef change are provided for the three most commonly-used clefs (gClefChange, cClefChange, and fClefChange), together with a combining control character (clefChangeCombining) that font designers may use to produce smaller versions of less commonly-used clefs by way of glyph substitution (such as OpenType ligatures). Scoring applications may choose to use these dedicated clef change glyphs if they do not provide the end user with control over the size of clef changes. Otherwise, scoring applications should draw clef changes by using the regular clef glyphs at a smaller point size, either fixed at two-thirds the size of normal clefs, or at a size of the end user’s choosing.

1. Gould, *ibid.*, page 7. [↑](#footnote-ref-1)