

Chapter 11: Clef Tool

Clef Tool

What it does

Use this tool to create clef changes anywhere in the score—even in the middle of a measure. See [CLEFS](#) for full instructions.

[TOC](#)

Special mouse clicks

[Index](#)

- **Click a measure that doesn't contain a mid-measure clef** to display the Change Clef dialog box, where you can specify a clef that you want to insert in the measure you clicked.
- **Click a measure that contains a mid-measure clef** to display a handle on every mid-measure clef.
- **Drag a mid-measure clef handle left, or right** to adjust the clef's position. The notes before and after it are renotated accordingly as you drag it.
- **Click a mid-measure clef handle** to select it; press delete, or right mouse click the handle and select Delete from the contextual menu to remove it. You can also shift-click to select additional mid-measure clef handles or drag-enclose several.
- **Double-click a mid-measure clef handle; on the second click, hold the mouse button down and drag the handle right or left** to change the clef (from a bass clef to a treble clef, for example). As you drag the clef horizontally, it cycles through its sixteen available clefs.
- **Double-click a measure containing a mid-measure clef** to insert a new mid-measure clef at the place you clicked.
- **Ctrl-click a mid-measure clef handle, or right mouse click the handle and select Edit Clef Definition from the contextual menu** to display the Mid-measure Clef dialog box, where you can change the clef, specify its positioning, or turn it back into a single clef (one that appears just before the first barline of the measure and can't be moved).

[Next Chapter](#)
[Previous Chapter](#)

Metatools

[TOC](#)

You can create Clef Metatools—one keystroke equivalents for a particular clef—which can be especially useful if you apply the same clef in multiple places in your score. Clef Metatools can be programmed to any letter or number.

[Index](#)

To program a Clef Metatool

Click the Clef Tool. Press shift and a number key or a letter. Finale displays the Clef Selection dialog box; choose the clef you want to correspond to the number or letter you pressed. Click OK (or press enter).

[Next Chapter](#)

To use a Clef Metatool

[Previous Chapter](#)

Click the Clef Tool. While pressing the number corresponding to the Clef you desire:

- **Click before the first note of a piece** to change the first clef displayed.

- **Click before the first note of a measure** to change the first clef for that measure and the remainder of the piece.
- **Click between notes in a measure** to set a mid-measure clef for the remainder of the measure and the remainder of the piece.

Contextual menus


Contextual menus are reached by right mouse-clicking on the handle of an object. A contextual menu will be displayed where you can select various items.

Mid-Measure Clef handles

Menu item	What it does
Edit Clef Definition	Display the Mid-measure Clef dialog box
Delete	Delete selected mid-measure clef

Change Clef dialog box

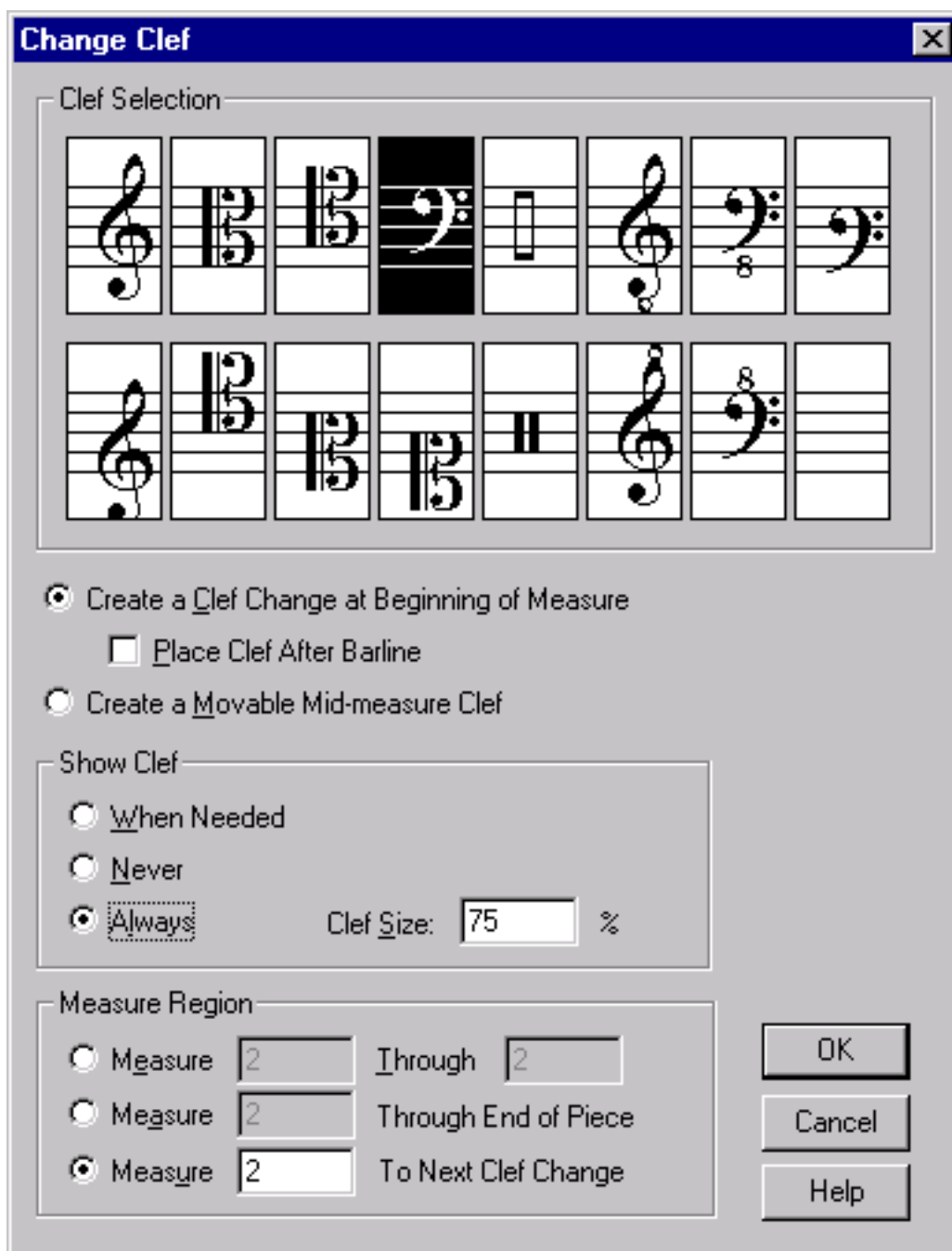
How to get there

Click the Clef Tool , then click any measure.

What it does

You can change the clef at the beginning—or even in the middle—of any measure in the score. In this dialog box you specify which clef you want to use and tell Finale whether you want it to occur at the beginning of the measure or somewhere in the middle.

[TOC](#)[Index](#)[Next
Chapter](#)[Previous
Chapter](#)[TOC](#)[Index](#)[Next
Chapter](#)[Previous
Chapter](#)



- **Create a Clef Change at Beginning of Measure.** When this option is selected, Finale will change the clef for the entire measure (or whatever range of measures you specify).
- **Place Clef After Barline.** Check the Place Clef After Barline checkbox to display the clef immediately to the right of the barline. Uncheck the box to display the clef to the left of the barline.

[TOC](#)[Index](#)[Next Chapter](#)[Previous Chapter](#)[TOC](#)[Index](#)[Next Chapter](#)[Previous Chapter](#)

- **Create a Movable Mid-measure Clef.** When this option is selected, Finale will place a drag-gable clef symbol at the beginning of the measure you clicked, but it displays a handle. Drag to move the clef anywhere in the measure. By double-clicking the measure, you can add additional mid-measure clefs.
- **Show Clef: When Needed • Never • Always.** Select When Needed to display a courtesy clef if the clef is changing from the previous measure. Select Never to hide the clef. Select Always to force the clef to display.

Tip: Use Never at the end of a first ending repeat to set the clef for the second ending without displaying it.

- **Clef Size __ %.** This box is available only when you have selected Always Show Clef. Enter in the size of the new clef as a percent of full size.
- **Measure __ Through __ • Measure __ Through End of Piece • Measure __ To Next Clef Change.** Using these text boxes, tell Finale what range of measures you want to be affected by the clef change. Finale shows the measure you clicked in the text boxes; if you're only changing a single measure, you don't need to adjust these settings.


If you want to change the measure you clicked through the end of the piece, select the middle option. If you want to change the measure you clicked until the next measure of a different clef, click the lower option.

- **OK • Cancel.** If you click the OK button, Finale places the clef you selected at the beginning of the specified measure and returns you to the score. Click Cancel to return to the score without adding or editing a clef.

[TOC](#)[Index](#)[Next Chapter](#)[Previous Chapter](#)

Mid-Measure Clef dialog box

How to get there

Click the Clef Tool . Click any measure containing an inserted mid-measure clef; ctrl-click the mid-measure clef's handle.

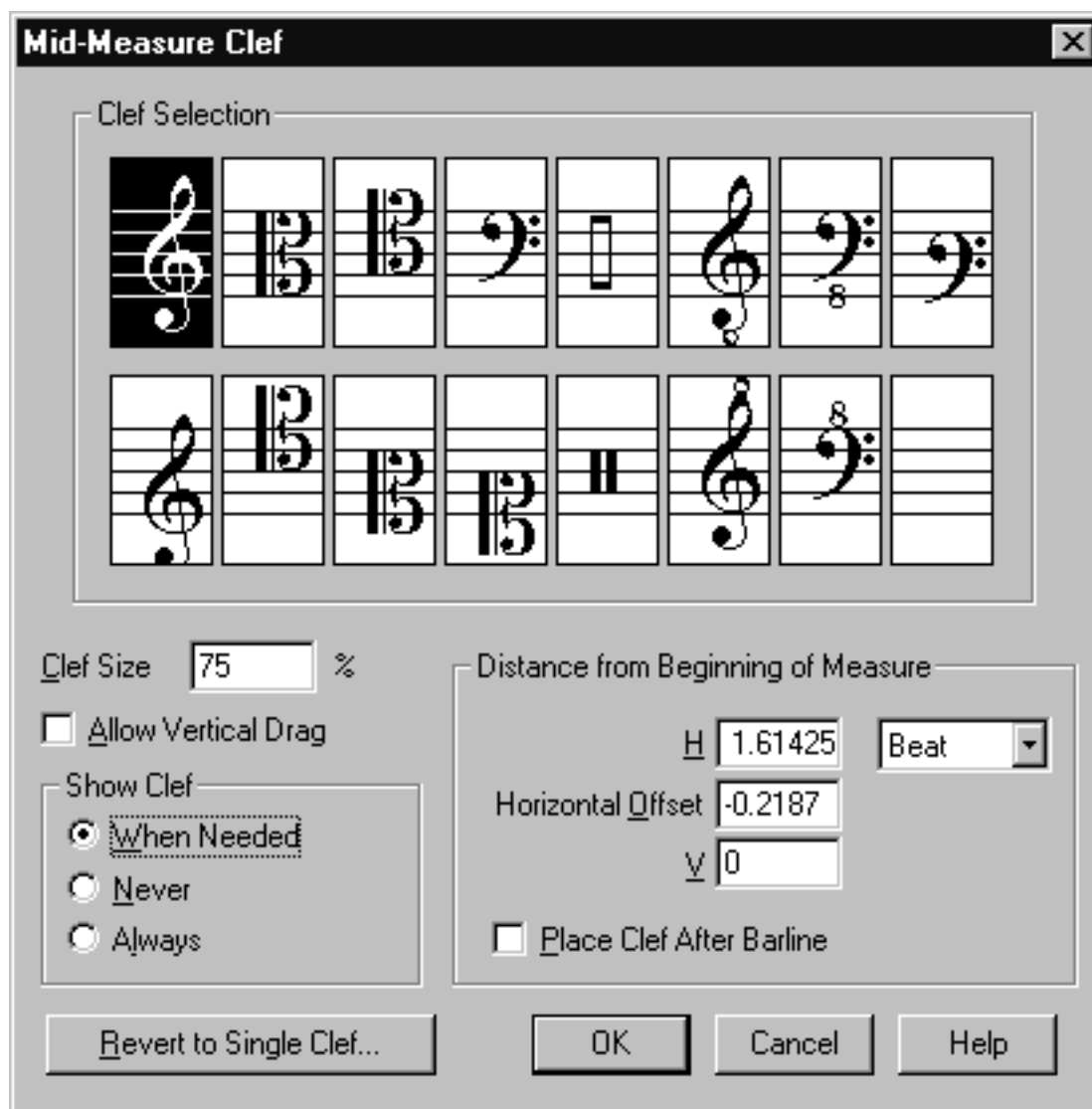
What it does

You can use the Clef Tool to create a clef change anywhere in a staff; unless you choose Create a Movable Mid-measure Clef in the Clef dialog box, however, the clef change always occurs at a barline and lasts for at least one measure.

A mid-measure clef, however, can be placed anywhere in a measure—you can even drag it back and forth among the notes of the measure to see which placement would be easiest for the player to sight-read. As you drag the clef, the notes before and after it renotate themselves accordingly. You can have more than one mid-measure clef in a measure; in fact, another mid-measure clef appears each time you double-click a measure in which one already appears.

After placing a mid-measure clef, you can access this dialog box to change the clef, choose its size, and specify its placement.

[TOC](#)[Index](#)[Next Chapter](#)[Previous Chapter](#)



- **Clef Selection.** The Clef display identifies which clef you want to appear. (Each Finale document offers sixteen clefs, which you can edit or rearrange with the Clef Designer; see [CLEFS](#).) To select a different clef click the one you want, or double-click to select the clef and exit the dialog box.
- **Clef Size.** It's customary for any new clef within a piece to be sized slightly smaller than the original starting clef. In each Finale document, this reduced size (expressed as a percentage of full size) is set globally in the Notation Options dialog box (Options Menu).
If you want to specify a different degree of reduction to this particular clef, enter the desired reduction percentage in this text box. This new percentage you enter overrides the default percentage set in the Notation Options dialog box.
- **Allow Vertical Drag.** Select this checkbox to allow the mid-measure clef to be moved vertically as well as horizontally in the score.

TOC

Index

Next
ChapterPrevious
Chapter

TOC

Index

Next
ChapterPrevious
Chapter

- **Show Clef: When Needed • Never • Always.** Select When Needed to display the mid-measure clef as usual. Select Never to change the clef, but not display the clef in the music. Select Always to change the clef and force it to display.

Tip: Use Never at the end of a first ending repeat to set the clef for the second ending without displaying it.

- **Distance from Beginning of Measure: H: • Horizontal Offset • V: • Beats • EDUs • Place After Barline.** The numbers in the text boxes specify the position of the new clef's handle in the measure. The H: (horizontal) number indicates the beat in which the clef appears. The V: (vertical) number measures the distance from the top line of the staff (a negative number moves the clef downward). Use the drop-down list for the H: text box to specify the musical position of the clef in the measure. For example, in $\frac{4}{4}$ you could position a clef in Beat 1, or if you prefer EDUs, 1024 EDUs. Use the Horizontal Offset to determine the space between the mid-measure clef and the next entry.

You can position the clef by entering numbers in these text boxes, but it's easier to position it simply by dragging it once it's in the score.

Click on the Place Clef After Barline checkbox to display the clef immediately to the right of the barline.

- **Revert to Single Clef.** If you decide not to place the clef in the middle of the measure, click this button to turn it back into a "single" clef (one that appears just before the barline and affects a full measure at a time). You return to the Change Clef dialog box.
- **OK • Cancel.** Click OK (or press enter) to save changes to the new clef and return to the score. The clef appears with a handle, which you can drag horizontally or vertically to position the clef. As you drag it horizontally, the notes before and after the new clef renotate themselves accordingly, letting you experiment to find the most logical placement for sight-reading purposes.

You can also experiment with your choice of the clef itself. Double-click its handle; on the second click, hold the button down and drag the clef left or right. The clef itself cycles through the sixteen available clefs as you drag it horizontally.

Click Cancel to tell Finale not to save changes to the new clef. You return to the score.

TOC

Index

Next
ChapterPrevious
Chapter

TOC

Clef Selection dialog box

Index

How to get there

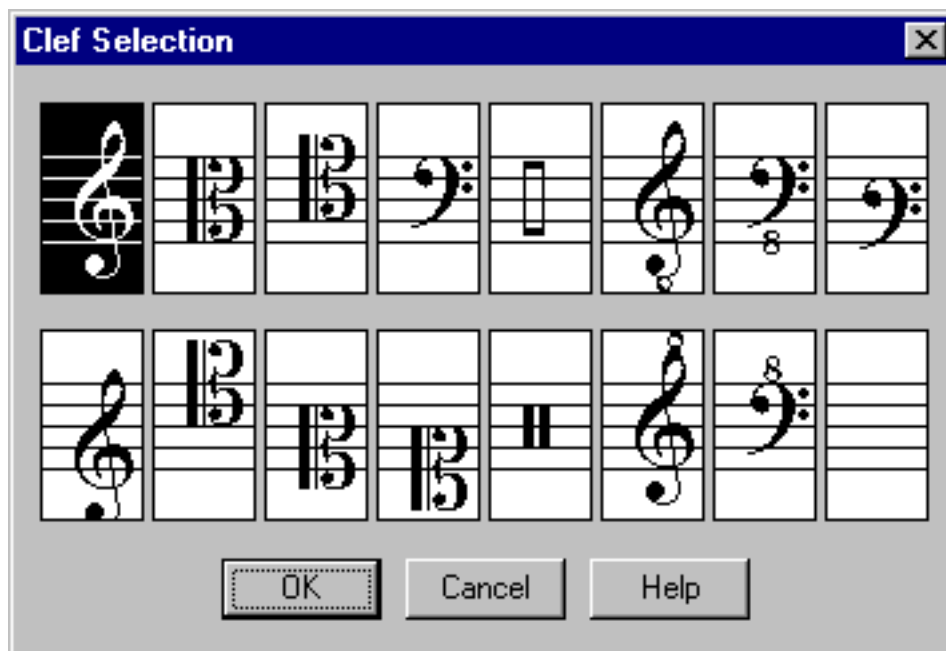
The Clef Selection dialog box appears any time you click a Select button for a clef, which appears in a number of Finale dialog boxes.

Next
Chapter

What it does

The Clef Selection dialog box displays a palette containing the sixteen clefs currently available in this piece. Finale initially offers sixteen clefs, however, you can edit these clefs or even design your own, using the Clef Designer command in the Document Settings submenu of the Options Menu. See [CLEF DESIGNER DIALOG BOX](#).

Previous
Chapter



- **[Clef icons].** These icons illustrate the sixteen clefs defined for this piece. Double-click one to select it and exit the dialog box.
- **OK • Cancel.** Instead of double-clicking a clef's picture, you can click it once and then click OK (or press enter), which also selects the clef and exits this dialog box. Click Cancel to exit the dialog box without making a selection.

Clef Designer dialog box

How to get there

From the Options Menu, choose Document Settings, then Clef Designer.

What it does

Finale supplies sixteen standard default clefs for use in your pieces (see picture). You can modify these clefs or replace them with custom clefs of your own, using new symbols if you prefer (you can either use a symbol from a font or design the graphic clef symbol yourself).

If you define a new clef, Finale will treat it intelligently, correctly renotating any music that follows it and always keeping track of the notes' playback pitches. Any new clefs you create appear in the standard palette of sixteen clefs (replacing existing clefs).

[TOC](#)

[Index](#)

[Next Chapter](#)

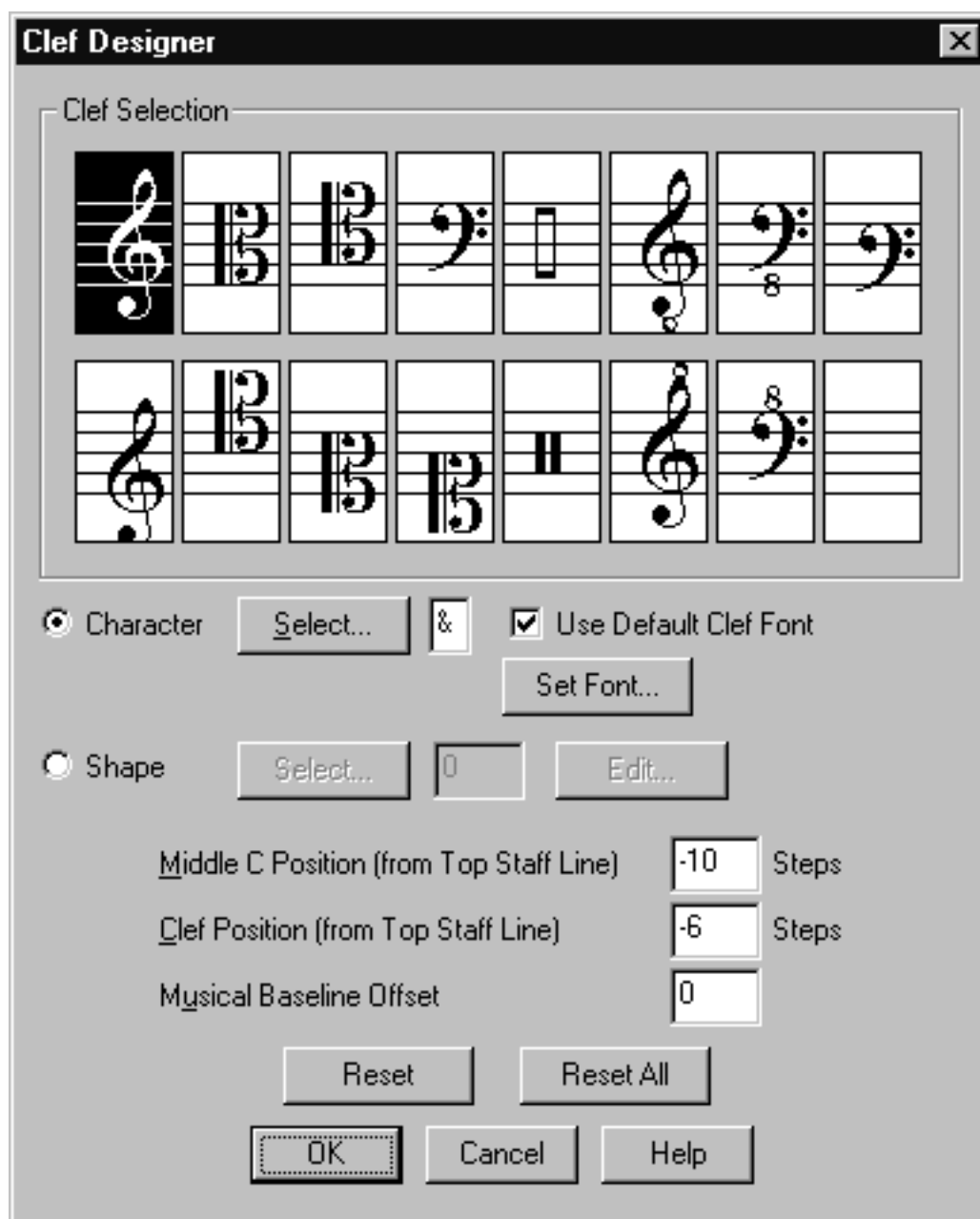
[Previous Chapter](#)

[TOC](#)

[Index](#)

[Next Chapter](#)

[Previous Chapter](#)



- **[Clef icons].** These icons illustrate the sixteen clefs defined for this piece. Click an icon to select it for editing.
- **Character: Select • [Symbol].** Click Character to create a clef based on a font symbol. The character you enter in the symbol text box tells Finale what symbol to use to represent the clef when it appears in the score. The symbol always appears in this text box in the system font, even if you've specified a different font for the actual display. For example, the treble clef appears in this text box as an ampersand (&), even though in the score (and in Finale's music font) it looks like the G-clef symbol (G-clef symbol).

If you're not sure which letter corresponds to the symbol you want to use, click Select. Finale will display a palette containing every character available.

[TOC](#)

[Index](#)

[Next Chapter](#)

[Previous Chapter](#)

[TOC](#)

[Index](#)

[Next Chapter](#)

[Previous Chapter](#)

- **Use Default Clef Font • Set Font.** Check this box to display the selected clef in the font currently selected for Clefs in the Select Default Fonts box.
- **Shape: Select • Edit.** Click Shape to create a clef based on a shape. The number in the text box identifies the raw shape you're editing. If there's a zero in this box, click Select to display the Shape Selection dialog box, where you can double-click an existing shape (or click Create to enter the Shape Designer, where you can create your own). In either case, when you return to the Clef Designer, Finale enters the number of the shape you selected in the text box.
- **Middle C Position (from Top Staff Line, in steps).** The number in this text box specifies the middle-C line for this clef. A value of zero places middle C on the top line of the staff; the number in this text box indicates the number of lines and spaces away from this top line middle C is to be. For example, the treble clef, which places middle C one ledger line below the staff, has a Clef Adjustment value of -10, because one ledger line below the staff is ten lines and spaces below the top line of the staff. Note that when you move the position of middle C, the key signature will also move with it.
- **Clef Position (from Top Staff Line, in steps).** This value, measured in lines and spaces from the top line of the staff, determines where the new clef will sit on the staff. A value of zero places the baseline of the clef on the top line of the staff. Note that the baseline of a clef isn't quite the same as the baseline for regular text; the baseline of a clef is determined by its musical meaning. For example, the baseline of the treble clef isn't the bottom of the character—it's the "curl" that's centered on the G line of the staff; the baseline of the bass clef is centered between the two dots (the F line), and so on. Thus the Clef Position for the treble clef is -6, six lines and spaces lower than the top line of the staff.
- **Musical Baseline Offset.** The value in this text box sets the distance between the normal baseline for each clef (as defined in the previous item) and its vertical position when it occurs as a clef change (and hence at a reduced size). It's measured in the currently selected units, inches by default.

Clefs in the Maestro, Petrucci, Engraver and Sonata music fonts are positioned correctly automatically when they occur as clef changes, but symbols in fonts you design yourself may require this extra adjustment.

- **Reset • Reset All.** Click Reset to return the selected clef to the default clef in a Coda font (Petrucci, Engraver, or Maestro). Click Reset All to return all of the clefs to the defaults.
- **OK • Cancel.** Click OK (or press enter) to return to the score. From now on, any time you access the palette of clefs (in the Staff Attributes dialog box, for example, or within the Clef Tool), you'll see your new clef represented as one of the sixteen available. Remember that when you define a new clef, you replace one of the sixteen default clefs, including any occurrences of it in the score. Click Cancel to return to the score without making any changes to the clefs in your piece.

Clefs

See also [COURTESY CLEF CHANGES](#).

The clefs in Finale are intelligent: if you change a clef, the music that follows it is automatically renotated to reflect the change. Finale can use sixteen different kinds of clefs per piece, shown

[TOC](#)

[Index](#)

[Next Chapter](#)

[Previous Chapter](#)

[TOC](#)

[Index](#)


[Next Chapter](#)

[Previous Chapter](#)

below (see “[To design a new clef](#),” below), but you can re-define any of these symbols or their effects on the notated music.

To set the starting clef for a staff

This method is suggested when you are also setting up other attributes of the staff, such as its instrument name and transposition. Keep in mind, though, that you can also use the Clef Tool (as described below) to perform the same function.


- **Click the Staff Tool , and then double-click the desired staff.** The Staff Attributes dialog box appears.
- **Click the Select button near the words First Clef.** The Clef Selection dialog box appears.
- **Double-click the clef you want. Click OK (or press enter).**

[TOC](#)

[Index](#)

To insert a clef change


You can also use this method to set the clef at the beginning of a staff.

- **Click the Clef Tool .** Click the measure where you want the clef to change. The Change Clef dialog box appears.
- **Click to highlight the clef you want.**
- **In the Measure__ Through __ text boxes, enter the measures you want to be affected by this clef change.** When you enter the dialog box, both text boxes show the current measure number. If you want the clef to change all measures to the end of the piece, choose the second measure region button in the dialog box.
- **If the new clef is to begin the measure, click OK (or press enter).**
- **If the new clef is to begin in the middle of the measure, click Create a movable mid-measure clef.** You return to the score with the clef—which now has a handle—at the beginning of the staff. Drag the clef’s handle right, left, up, or down, positioning it as desired. The notes before and after it will be renotated automatically.

[Next Chapter](#)

[Previous Chapter](#)

To change a clef you’ve inserted in mid-measure

- **Click the Clef Tool .**, and click the measure where the clef change occurs. The clef’s handle appears.
- **Double-click the handle; on the second click, hold the button down and drag left or right.** As you drag the clef, its identity cycles through the sixteen standard clefs.

[TOC](#)

Another way to edit the clef is to ctrl-click its handle. You reenter the Mid-Measure Clef dialog box, where you change the clef itself, its size, or its position.

[Index](#)

To change the default clef

When you add a staff to the score, it initially appears with a treble clef. You can change this default clef, so that any new staff appears with another clef.


- **From the Options Menu, choose Document Settings, then Notation Options.** The Notation Options dialog box appears.
- **Under the heading Default Clef Change, click Select.** The Clef Selection dialog box appears.

[Next Chapter](#)

[Previous Chapter](#)

- **Double-click the desired default clef. Click OK (or press enter).** Now any new staff you create with the Staff Tool will appear with the default clef you specified.

To hide a clef

- **Click the Clef Tool** . **Click the measure where you want hide the clef.** If you want to hide a mid-measure clef, click the mid-measure clef handle. The Change Clef dialog box (or the Mid-measure Clef dialog box) appears.
- **Select Never in the Show Clef section.**
- **Click OK.**

[TOC](#)

To design a new clef

You're not limited to using the traditional clefs in Finale; you can create your own clef, using any symbol, with any notational meaning. You can even create your own clef in the Shape Designer; see [TO DESIGN A SHAPE CLEF](#). Each document you create can have sixteen clefs; in order to create your own, therefore, you'll have to replace one of the sixteen default clefs. You can save your newly designed clef into a Clef library, so you can use the same clef in new documents. See [SAVE LIBRARY DIALOG BOX](#).

[Index](#)

[Next Chapter](#)

[Previous Chapter](#)

- **From the Options Menu, choose Document Settings, then Clef Designer.** The Clef Designer dialog box appears.
- **Click on the clef whose characteristics you want to alter.**
- **Next to Character, click Symbol.** A palette of all available characters in the currently selected font appears. To change the font for this clef, click on Set Font and choose a different font. To change the font for all clefs, see [SELECT DEFAULT FONTS DIALOG BOX](#). If you don't see a font character you want, see [TO DESIGN A SHAPE CLEF](#).
- **Double-click the desired symbol.**
- **Set the middle-C line for this clef by typing a number into the Middle C Position text box.** A value of zero places middle C on the top line of the staff; this number indicates the number of lines or spaces that middle C is to be positioned away from this top line. For example, the treble clef, which places middle C one ledger line below the staff, has a Middle C Position value of -10, because one ledger line below the staff is ten lines and spaces down from the top line of the staff (whose number is zero).
- **Set the vertical positioning of the clef symbol by typing a number into the Clef Position text box.** This value, measured in lines and spaces, determines where the new clef will sit on the staff. A value of zero places the baseline of the clef on the top line of the staff. Note that the baseline of a clef is based on its musical meaning, and isn't quite the same as the baseline for regular text. For example, the baseline of the treble clef isn't the bottom of the character—it's the "curl" that sits on the G line of the staff; the baseline of the bass clef is centered between the two dots (the F line), and so on. Thus the Clef Position for the treble clef is -6, six lines and spaces lower than the top line of the staff.

[TOC](#)

[Index](#)

[Next Chapter](#)

[Previous Chapter](#)

- **If you're using a font other than Maestro, Petrucci, Engraver or Sonata, select Musical Baseline Offset and type a value into the text box.** This number sets the distance, in lines and spaces, between the normal baseline for the clef (as defined in the previous step) and its vertical position when it occurs as a clef change in the middle of the score, and hence at a reduced size. Finale positions clefs automatically if the Maestro, Petrucci, Engraver or Sonata music font is selected as the default music font, but symbols from a font you design yourself might require this extra adjustment.
- **Click OK (or press enter).** From now on in this document, any time you access the palette of clefs, you'll see the new clef represented as one of the sixteen available. Any music that follows it will be notated according to the definition of middle C (and the "stem-flipper" value) you've created. If you want to use this clef in other documents, see [LIBRARIES](#).

TOC

Index

To design a shape clef

You're not limited to a shape found in a font; you can combine font characters, draw free-hand or mix-and-match shapes. Each document you create can have sixteen clefs; in order to create your own, therefore, you'll have to replace one of the sixteen default clefs.

Next
Chapter

- **From the Options Menu, choose Document Settings, then Clef Designer.** The Clef Designer dialog box appears.
- **Click on the clef whose characteristics you want to alter.**
- **Set the middle-C line for this clef by typing a number into the Middle C Position text box.** A value of zero places middle C on the top line of the staff; this number indicates the number of lines or spaces that middle C is to be positioned away from this top line. For example, the treble clef, which places middle C one ledger line below the staff, has a Middle C Position value of -10, because one ledger line below the staff is ten lines and spaces down from the top line of the staff (whose number is zero).
- **Set the vertical positioning of the clef symbol by typing a number into the Clef Position text box.** This value, measured in lines and spaces, determines where the new clef will sit on the staff. A value of zero places the baseline of the clef on the top line of the staff. Note that the baseline of a clef is based on its musical meaning, and isn't quite the same as the baseline for regular text. For example, the baseline of the treble clef isn't the bottom of the character—it's the "curl" that sits on the G line of the staff; the baseline of the bass clef is centered between the two dots (the F line), and so on. Thus the Clef Position for the treble clef is -6, six lines and spaces lower than the top line of the staff.
- **Select Musical Baseline Offset and type a value into the text box.** This number sets the distance, in lines and spaces, between the normal baseline for the clef (as defined in the previous step) and its vertical position when it occurs as a clef change in the middle of the score, and hence at a reduced size.
- **Click on Shape, then Select, then Create.** The Shape Designer appears. Finale provides a template of the staff lines, to give you an idea of size and position when your clef appears in the score. A small origin circle marks where Finale will begin the clef horizontally and the Clef Position vertically. You'll probably want to draw your shape close to the origin circle, unless you want extra space before this clef. If you want to create extra space after this clef, insert a blank character to the right of the clef. (For extra space before or after all clefs, see

Previous
Chapter

TOC

Index

Next
ChapterPrevious
Chapter

[MUSIC OPTIONS](#).) To change the line of the origin circle, see the Clef Position earlier in this text. To insert a text character, click on the Shape Designer Menu and choose Set Font. Select a font, then return to the Shape Designer. You can now click on the Text Tool, then click on the window to type a character in the selected font. For more details about using the Shape Designer, see [SHAPE DESIGNER](#).

- **Press enter twice.** You return to the Clef Designer dialog box.
- **Click OK (or press enter).** You return to the score. From now on in this document, any time you access the palette of clefs, you'll see the new clef represented as one of the sixteen available. Any music that follows it will be notated according to the definition of middle C (and the "stem-flipper" value) you've created. If you want to use this clef in other documents, see [LIBRARIES](#).

TOC

Index

To change the horizontal positioning of starting clefs

- **From the Options Menu, choose Document Settings, then Music Options.** The Music Options dialog box appears.
- **Enter new values in the Spacing text boxes.** There are two text boxes next to the word Clef, both of which affect the horizontal placement of clefs throughout the piece. The Before text box determines how much space Finale will insert between the left barline and the clef itself. The After text box determines how much space will be between the clef and the key signature. The units are whatever you've selected using the Measurement Units command (Options Menu). (To change the global vertical positioning of clefs, see "[To design a new clef](#)," above.)
- **Click OK (or press enter).**

Next
ChapterPrevious
Chapter

To globally change the position and size of inserted clefs

When the clef for a staff changes in mid-score, it's customary to print that inserted clef at a slightly reduced size. Depending on the symbol and font you're using, you may also need to adjust the reduced clef's horizontal position (distance from the barline) on the staff. The vertical position of such a clef is determined in the Clef Designer (see "[To design a new clef](#)," above). Here's how to modify the percentage reduction and position of an inserted clef.

- **From the Options Menu, choose Document Settings, then Notation Options.** The Notation Options dialog box appears.
- **Enter a new percentage value in the Default Clef Change/Percent text box.** The number here is the reduction (or enlargement) you want applied to an inserted clef, relative to 100% (normal size).
- **To adjust the horizontal placement of an inserted clef, enter a new value in the Default Clef Change/Offset text box.** This number determines the distance between the clef and the following barline or notes. (Again, the units are the currently-selected Measurement Units.) A negative number moves the clef farther to the left.
- **Click OK (or press enter).**

TOC

Index

Next
Chapter

To specify the location of key-signature accidentals in a nonstandard clef

If you create your own clef, you can specify which octave each accidental appears in as you cycle through the circle of fifths. For example, on which F# line or space should the first sharp appear

Previous
Chapter

(in the key of G)? To specify this parameter, see [ACCIDENTAL OCTAVE PLACEMENT DIALOG BOX](#). See also, Middle C Position in the [CLEF DESIGNER DIALOG BOX](#).

Courtesy clef changes


When a clef change occurs at the beginning of a new line, it's customary to alert the musician by placing a smaller, "warning," clef change at the very end of the previous line. You can, if you wish, instruct Finale not to display these courtesy clef changes.

To globally prevent courtesy clefs from displaying

- **From the Options Menu, choose Document Settings, then Document Options.** The Document Options dialog box appears.
- **Click "Display Courtesy Clef at End of Staff System" to de-select it.** Finale will no longer display these warning clefs, unless you re-select this checkbox.
- **Click OK (or press enter).**

To prevent courtesy clefs from displaying in a single measure.

See also [CHANGE CLEF DIALOG BOX - NEVER SHOW CLEF](#).

- **Click the Measure Tool , and double-click the handle on the measure where the courtesy clef change occurs.** The Measure Attributes dialog box appears.
- **Select Hide Cautionary Clefs, Key and Time Signatures.**
- **Click OK.**

[TOC](#)[Index](#)[Next
Chapter](#)[Previous
Chapter](#)[TOC](#)[Index](#)[Next
Chapter](#)[Previous
Chapter](#)