Chapter 42: Mirror Tool

Mirror Tool 🖼

What it does

With this tool you can create one-measure intelligent copies, or mirrors—groups of notes that are dynamically linked to other notes in the score (the source material). When you edit the source notes, the notes of the mirror are automatically updated to reflect the change. You can create mirrors quickly and easily using the Mass Mover Tool if the passage you want to copy is a full measure long (or longer). However, use the Mirror Tool if you want only selected notes from a source measure to appear in the mirror measure.

Furthermore, you can use the Mirror Tool to combine individual sets of notes from different source measures into a single mirror measure, which is then called a **composite mirror.** And no matter how the mirror was created or what kind of mirror it is, you can also use this tool to select only certain notes in the mirror that you want displayed; Finale will hide the remaining notes. For example, you might create a kind of mirror— called a **selective mirror**— if the source measure contains a chordal passage, but you only want the top note of each chord to appear in the mirror.

Finally, you can use the Mirror Tool to create a pickup measure anywhere in the score; Finale will create blank space at the beginning of such a measure, pushing any existing notes to the right to make them act as pickup notes.

Special mouse clicks

*   **Click the Mirror Tool** to display a Mirror icon on every mirror measure, and a Placeholder icon on every pickup measure. You can't edit the notes in a mirrored measure directly; you must edit them in the source measure.
*   **Click a measure with notes in it (or a measure with a Placeholder icon)** to display the Placeholder dialog box (which lets you turn the measure you clicked into a pickup measure).
*   **Click an empty measure (or a measure with a Mirror icon)** to display the Tilting Mirror dialog box, which you can use to create or edit a composite mirror (containing selected notes from other measures).
*   **Shift-click a measure displaying a Mirror icon** to display the Mirror Attributes dialog box, where you can specify a number of parameters for the mirror (such as a transposition or beaming pattern).

Tilting Mirror dialog box

How to get there

From the Window menu, choose Advanced Tools. Click the Mirror Tool 🖼 , and click an empty measure (to create a new composite mirror) or a measure with a Mirror icon (to edit a composite mirror).

What it does

The Tilting Mirror is so named because you can maneuver this one-measure "window" around the score, copying individual notes from various measures. The result is a composite mirror, each note of which is dynamically linked to the note from which it was mirrored.

The Tilting Mirror initially appears blank, because you're viewing the measure you originally clicked (which, you'll recall, was empty). Click the up, down, left, and right arrows to move from measure to measure in the score; the contents of each measure appear in this window.

To specify several notes of a measure you want included in your composite mirror, click the arrow buttons until the source measure appears in the window. Then drag the handle at the top of each cut bar—the dotted vertical lines—until the cut bars enclose the notes you want included in your composite mirror. Click Prev, Next, Insert, or OK; Finale asks you if you're sure you want to add the selected notes—hereafter called a mirror fragment—to the composite mirror.
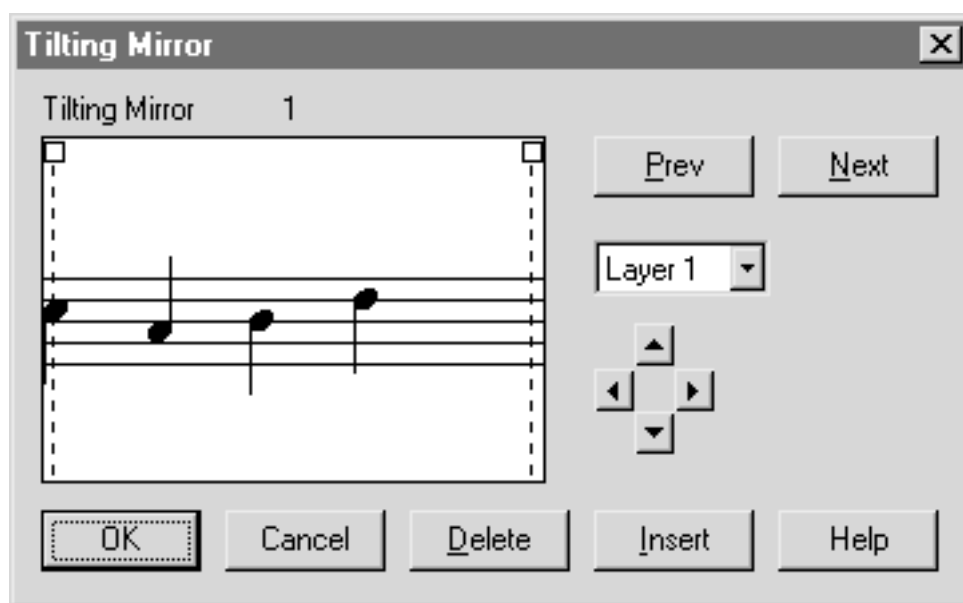
- **Prev • Next.** Click these buttons to scroll among the mirror fragments you've already assembled in the measure. If the music displayed between the two dotted-line cut bars is a fragment you haven't yet selected for inclusion in this composite mirror, click Prev or Next to select it.
- **Delete.** Click Delete to remove the fragment you're viewing from this mirrored measure.
- **Insert.** Click Insert if you want to place a new mirror fragment just before the one you're viewing. Finale returns the cut bars to the ends of the display window so that you can choose a new musical fragment (click the arrow buttons if necessary). Click OK, Prev, Next, or Insert again in the usual way. This time, however, Finale inserts the fragment instead of adding it to the end of the composite mirror.
- **Layer: 1 • 2 • 3 • 4.** This drop-down list identifies the layer (of the source measure) whose contents you're viewing. Switch to a different layer by choosing its name. (Your composite mirror fragment can include notes from all layers.)
- **[Up, down, left, and right arrow buttons].** These arrows let you change your view of the source measure. Click the up arrow to view the measure in the staff immediately above, the right arrow to view the next measure, and so on. As you proceed, you'll see the contents of

each measure you view, adjusted for the mirror measure's clef. (If you move your "view" to another mirrored measure, it will appear blank in this window.)

- **Cancel.** Click Cancel to return to the score without creating a mirror (or, if you've been editing an existing mirror, without saving your changes).
- **OK.** Click OK to conclude your assembly of the composite mirror measure. (If the music displayed between the two dotted-line cut bars is a fragment you haven't yet selected for inclusion in this composite mirror, Finale asks if you want to save changes.) If you've just created a new composite mirror, the Mirror Attributes dialog box appears, in which you can specify a number of additional characteristics for the composite mirror. See MIRROR ATTRIBUTES DIALOG BOX.

Beaming Chart dialog box

How to get there

From the Window Menu, choose Advanced Tools. Click the Mirror Tool , then click an empty measure; the Tilting Mirror dialog box appears. Assemble a composite mirror by clicking the arrow buttons to maneuver your "window" from measure to measure in the score, dragging the dotted-line "cut bar" handles inward to enclose the desired notes, clicking Next, and saving your changes; repeat this process as needed. Click OK, then click Rebeam, then click Rebeam to Beam Chart. (For a more complete discussion of composite mirrors, see MIRRORING.)

If a mirror already exists in the score, shift-click it; the Mirror Attributes dialog box appears. Click Rebeam, then click Rebeam to Beam Chart.

What it does

Using the cut bars as described above, you can assemble a measure composed of notes copied from other measures in the score. The resultant measure is a composite mirror, whose notes are dynamically linked to the "real" notes from which they were copied. Because you build a composite mirror by combining material from other measures, the beaming of eighth notes (and smaller values) may not be correct. The Beaming Chart dialog box lets you specify the beaming in a composite mirror.
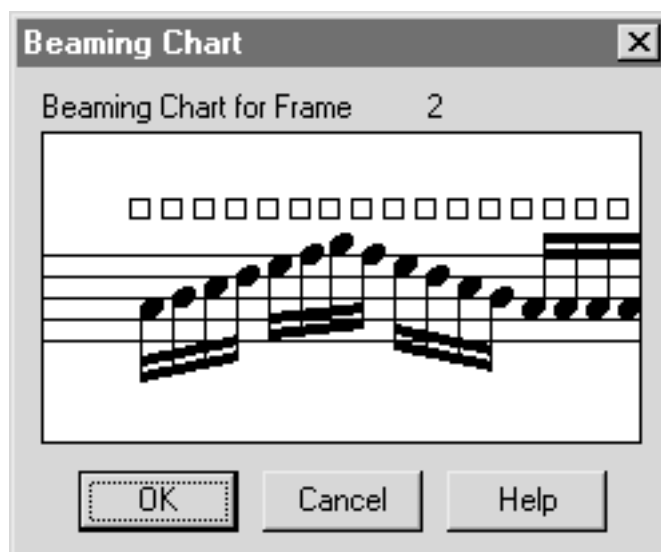
- **Beaming Chart for Frame (#).** This beaming window displays a handle for each eighth note (or smaller value). You break a beam between one note and another by clicking the handle of the second note. Any notes whose handles you haven't selected will be beamed together. (If you want all notes beamed together, select the first handle in the measure.)

- **OK • Cancel.** Click OK (or press enter) to confirm the rebeaming you've done and return to the Mirror Attributes dialog box. Click Cancel to tell Finale to ignore any changes you made in this dialog box, leave the beaming as it was, and return you to the Mirror Attributes dialog box.

Placeholder dialog box

How to get there

From the Window Menu, choose Advanced Tools. Click the Mirror Tool ⬚ . Click a measure with notes in it. (Or, if you've already created a Placeholder—and its Placeholder icon is visible—click the measure.)

What it does

This dialog box creates pickup measures. In other words, it creates an invisible "placeholder" of a rhythmic duration you specify at the beginning of the measure. Any existing notes in the measure slide to the right side of the measure, thus becoming pickup notes.

(Finale provides a second method of creating a pickup measure if it's the first measure in your score. See PICKUP MEASURES.)
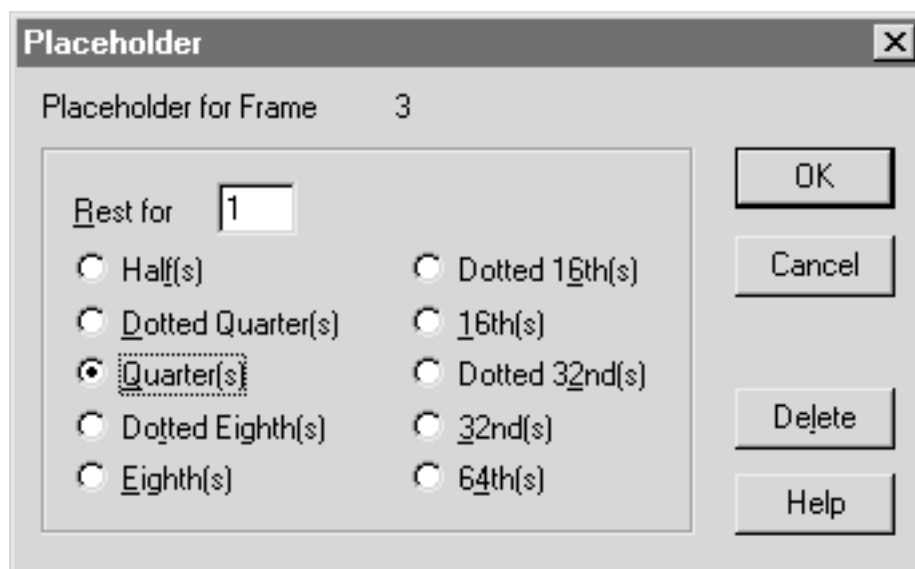
- **Placeholder for Frame (#).** This indicator identifies the frame (one measure on one staff) you clicked.

- **Rest for __.** Finale multiplies the number in this text box by whatever durational value you've selected (see below). At the beginning of the measure, Finale inserts "placeholders" (hidden rests) of the resulting duration, pushing any existing notes to the right (to become pickup notes).

  For example, if you want to create a pickup in $\frac{4}{4}$ consisting of three eighth notes, you need to create a "rest" the equivalent of five eighth notes to precede them. Enter 5 in the text box and select Eighth(s) from the list of durations (see below).

- **Half (s) • Dotted Quarter(s) • Quarter(s) • etc.** Select one of these durational values, which is then multiplied by the number in the Rest for text box. In this way you indicate how many placeholders of the specified duration you want Finale to insert before the pickup notes.

- **Delete.** If you entered this dialog box by clicking an existing pickup measure (identified by a Placeholder icon), you can restore it to "normal" measure status by clicking Delete.

- **OK • Cancel.** Click OK (or press enter) to confirm your placeholder definition. If you're creating a new placeholder, another dialog box appears, asking whether this is to be a pickup measure in every staff, or just the staff you clicked. Click the appropriate response. You then return to the score, where Finale displays a Placeholder icon on the pickup measure to help you identify it. Click Cancel if you decide not to create (or change) a pickup measure.

  You can modify your placeholder settings at any time by clicking any measure displaying a placeholder icon.

Mirror Attributes dialog box

How to get there

From the Window Menu, choose Advanced Tools. Click the Mirror Tool [icon] . Click an empty measure; use the Tilting Mirror dialog box, as necessary, to compose a composite mirror (see TILTING MIRROR DIALOG BOX); click OK.

Any mirrored measure you've already created using either the Mirror Tool or the Mass Mover Tool will display a Mirror icon [icon] the next time you select the Mirror Tool. You can also access this dialog box by shift-clicking any measure marked with this Mirror icon.

Finally, this dialog box appears when you create a mirror using the Mass Mover Tool [icon] . Choose Mirror from the Mass Mover Menu. Select a region of measures; drag the first source measure so that it's superimposed on the first destination measure.

What it does

A mirror is an intelligent copy of an existing (or "source") measure in the score. When you edit the source measure in any way, all mirrors created from it are instantly updated to reflect the change. In this dialog box, you can specify certain ways in which you want the mirror to differ from the source measure. For example, you could specify that it be transposed up an octave (if, say, it's doubling another instrument in the score). You can also specify stem direction, beaming, and whether or not you want various other elements (lyrics, chord symbols, and so on) to appear in the copy.

The advantage of all this control is that you can link the mirror to the source music, but the original and the copy need not be utterly identical. You copy only those elements you want to copy.
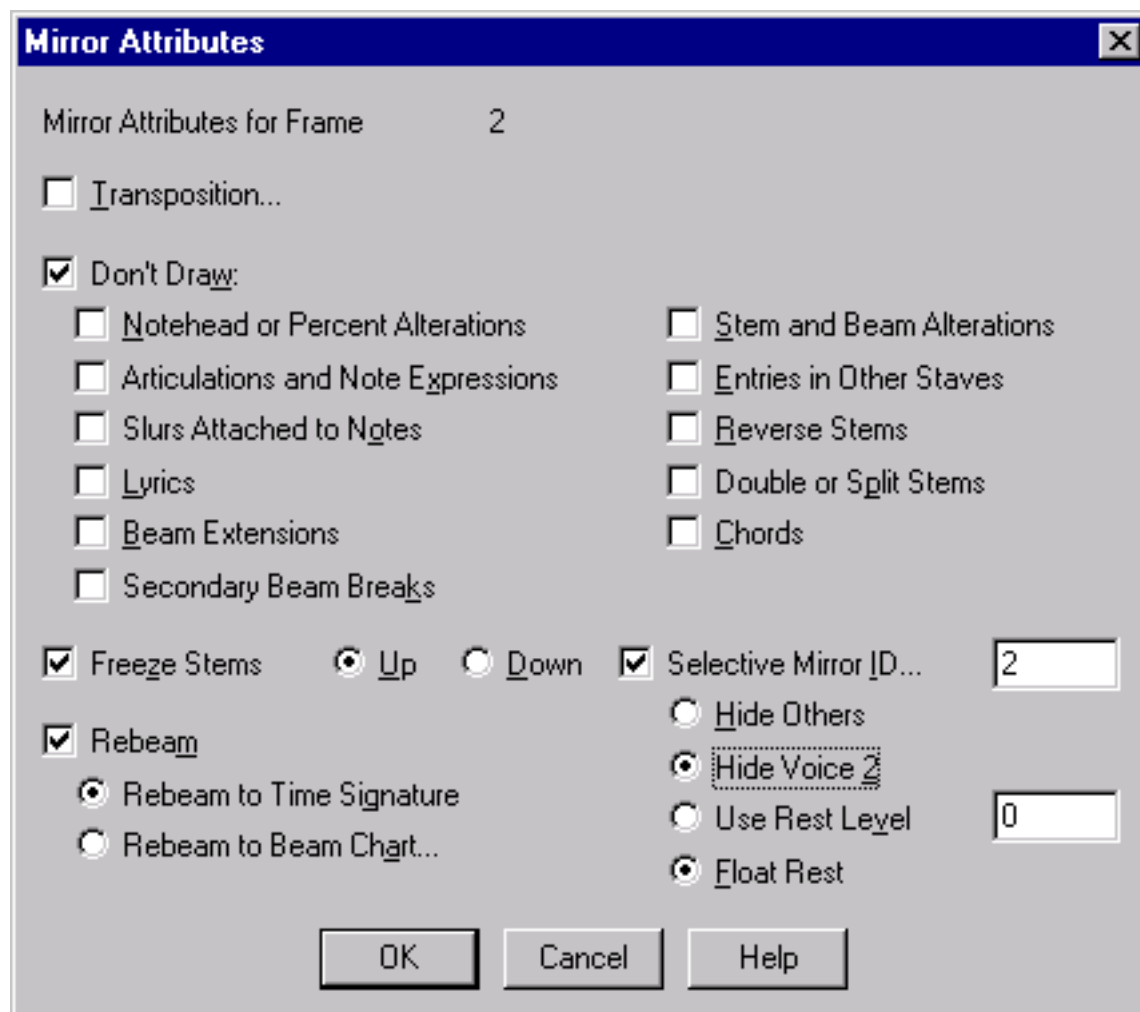
- **Mirror Attributes for Frame (#).** This indicator identifies, by number, the frame (a single measure on a single staff) in which the mirror occurs.

- **Transposition.** When you select this option, Finale displays the Transposition dialog box so that you can specify an interval by which you want the mirror transposed in relation to its source measure or measures. See TRANSPOSITION DIALOG BOX.

- **Don't Draw:.** The next group of checkboxes let you specify elements of the source music you don't want to appear in the copy. Select as many as you want.

Checkbox Name	Musical elements affected
Notehead and Percentage Alterations	Changes to the note shape or size you've made with the Special Tools Tool or the Resize Tool
Articulations and Note Expressions	Note-attached marks created with the Articulation Tool or the Expression Tool
Slurs Attached to Notes	Note-attached slurs that start and end in the affected region.
Lyrics	Lyrics of any type
Beam Extensions	Extended beams created with the Special Tools Tool

Checkbox Name	Musical elements affected
Secondary Beam Breaks	Breaks in the beams of sixteenth notes (and smaller values) created with the Special Tools Tool
Stem and Beam Alterations	Modifications to stem length and shape, or to beam angles, created with the Special Tools Tool
Entries in Other Staves	Cross-staff notes (refers not to the notes themselves, but whether their cross-staff status should be preserved)
Reverse Stems	Reverse stemming created with the Special Tools Tool
Double or Split Stems	Double or split stemming created with the Special Tools Tool
Chords	Chord symbols

- **Freeze Stems: up/down.** If you want all the stems in the mirror to be frozen either up or down, click Freeze Stems and select the "up" or "down" radio button.

- **Rebeam.** When you build a composite mirror by choosing fragments of music from several different source measures, the result may not be beamed correctly (since you may have chosen a single eighth note from one measure, two from another, and so on). You can solve this problem (or even change the beaming pattern on a normal, full-measure mirror) by selecting Rebeam, which makes the following two rebeaming options available:

- **Rebeam to Time Signature.** If you select this radio button, the notes in the mirror measure are beamed according to the current time signature, as though its music had been entered in the usual way.

- **Rebeam to Beam Chart.** If you select this radio button, Finale displays the Beaming Chart dialog box. This graphic window displays a handle for each eighth note (or smaller value). You break a beam to a note (from the previous note) by clicking its handle. Any notes whose handles you haven't selected will be beamed together. (If you want all notes beamed together, select the first handle in the measure.) When you return to the Mirror Attributes dialog box, the Rebeam to Beam Chart radio button is selected. (See BEAMING CHART DIALOG BOX.)

- **Selective Mirror ID.** An intelligent copy of a full measure is called a mirror; a measure composed of selected notes from several measures is called a composite mirror. There may be times, however, when you want to display only selected notes from a mirror or composite mirror. For example, you might want to pick out a single melody line from a chordal right-hand piano part.

  For this purpose, Finale offers you the ability to choose individual notes from a mirror or composite mirror; the result is a selective mirror. To create one, click the words Selective Mirror ID; Finale displays the Selective Mirror dialog box.

  In this graphic window, you can click the handles of the notes you want include in the selective mirror. You can pick individual notes out of a chord or, by drag-enclosing several handles, you can select groups of notes within chords. If the selective mirror omits notes that fall on certain beats (when you choose only the first and third quarter notes of a melody, for example), Finale will provide rests in place of the omitted notes.

Click Prev and Next to scroll through other selective mirrors you've created from the main mirror. When you're finished, click OK; Finale automatically enters the number of the selective mirror in the text box. See <u>SELECTIVE MIRROR DIALOG BOX</u>.

- **Hide Others.** This option, and the three below it, apply only to the selective mirror identified in the text box.

  Normally, when you create a selective mirror, Finale substitutes rests for any notes you didn't select. Click this radio button if you want the omitted notes to be hidden completely (instead of appearing as rests).

- **Hide Voice 2.** Select this option if you want Finale to hide any Voice 2 notes you omitted when creating your selective mirror. If you don't select this option, Finale will substitute rests for these omitted notes.

- **Use Rest Level.** If you want to specify where rests should appear in the selective mirror, select this radio button and enter a number in the text box. This number represents the distance between the center of the rest and the line or space of the root scale tone (which is numbered 0), measured in lines and spaces; a higher number moves the rest upward.

- **Float Rest.** Select this option if you want rests in the selective mirror positioned normally (usually on the middle staff line).

- **OK • Cancel.** Click OK (or press enter) to confirm the settings you've made in this dialog box. You return to the score, where the new or edited mirror appears. Click Cancel to return to the score without creating or editing any mirrors.

Set Placeholder dialog box

How to get there

From the Window Menu, choose Advanced Tools. Click the Mirror Tool [icon], and click any measure that contains notes. The Placeholder dialog box appears, letting you specify how many "blank" beats you want (for use in creating a pickup measure). Make a selection and click OK.

What it does

If your piece has more than one staff, Finale is asking whether the pickup measure only occurs in the staff you clicked, or in all staves.

- **Change This Staff Only.** Click this button (or press enter) if you want the "placeholder" beats (invisible beats at the beginning of a pickup measure) to occur only in the staff you clicked.

- **Change All Staves.** Click this button if you want the "placeholder" beats to occur in every staff.

- **OK • Cancel.** Click OK (or press enter) to confirm, or Cancel to discard your set placeholder selection.

Selective Mirror dialog box

How to get there

After creating a mirror with the Mass Mover Tool: From the Window Menu, choose Advanced Tools. Click the Mirror Tool ⬜ . Shift-click the mirror measure (which displays the Mirror icon). Click Selective Mirror ID.

When creating a composite mirror: From the Window Menu, choose Advanced Tools. Click the Mirror Tool ⬜ . Click an empty measure; the Tilting Mirror dialog box appears. Create a composite mirror in the usual way (see MIRRORING), ending by clicking Yes. Click Selective Mirror ID.

What it does

An intelligent copy of a full measure is called a mirror; a measure composed of selected notes from several different measures is called a composite mirror. There may be times, however, when you want to display only selected notes from a mirror or composite mirror. For example, you might want a certain measure to display only a single monophonic musical line distilled from the chordal right-hand piano part from which it was mirrored.

For this purpose, Finale offers you the ability to choose individual notes from a mirror or composite mirror; the result is a selective mirror.

In this graphic window, you can click the handles of the notes you want to include in the selective mirror. You can pick individual notes out of a chord or, by drag-enclosing several handles, you can select groups of notes within chords. Finale will automatically provide rests to replace any notes you don't select.

Click Prev and Next to scroll through other mirror measures. When you're finished, click OK; Finale automatically enters the number of the selective mirror in the text box.
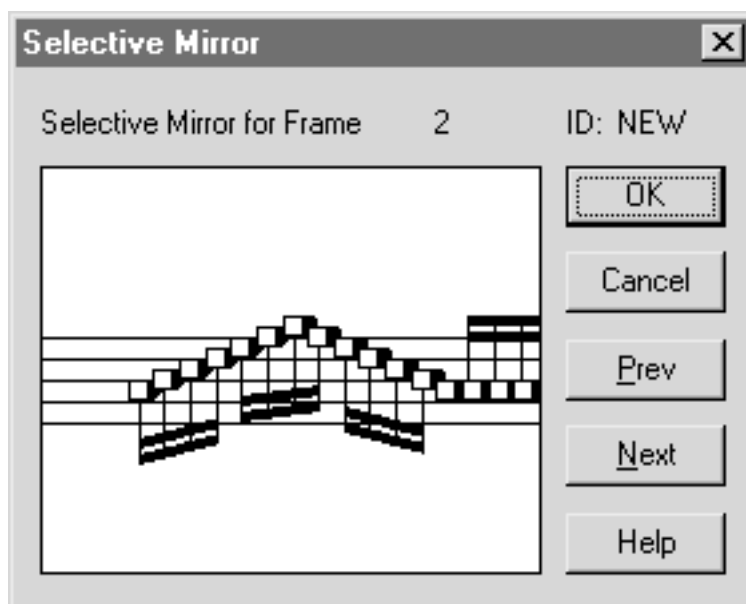
- **ID:.** This indicator identifies the selective mirror by number. Finale assigns each new selective mirror a sequential ID number. If the number in the Selective Mirror ID text box was 0, Finale knows you're creating a new selective mirror, and this indicator says NEW. If you entered a number in the Selective Mirror ID text box, Finale displays the selective mirror assigned to that number, so that you can edit it.
- **OK • Cancel.** When you've chosen all the notes you want included in your selective mirror by clicking their handles, click OK (or press enter). You return to the Mirror Attributes dialog box, where Finale places an X in the Selective Mirror checkbox and displays the new selective mirror's number in the text box. Click Cancel to return to the previous dialog box without creating (or editing) a selective mirror.
- **Prev • Next.** If you've created more than one selective mirror, click Prev and Next to scroll through them.

Mirroring

To create a mirror (intelligent copy)

You can only make mirrors in measures that are currently empty.

- **Click the Mass Mover Tool** **, and choose Mirror from the Mass Mover Menu.**
- **Select the music that will serve as the source of the copies.**
- **Drag the selection so that it's superimposed on the first target measure.** Remember, the target measures must be empty. If the first target measure is offscreen, scroll to it; then, while pressing ctrl and shift simultaneously, click it. In either case, the Mirror Attributes dialog box appears.
- **If you want the mirror to be transposed in relation to the source measure, click Transposition, specify the interval, and click OK.** For example, if you're doubling a violin line in the

cellos, you'd probably want to transpose the mirror (the cello copy) down an octave or two. In this case, you'd choose Down, Diatonically, and Octave from the drop-down lists.

- **Specify any elements of the source music that you don't want to appear in the copy.** To do so, click Don't Draw, and then click the elements you don't want to appear (Lyrics, Chords, or Beam Extensions, for example).

- **Click OK (or press enter).** Note: You can use the Mass Mover Tool to copy mirrored measures just as you would copy normal measures. Remember, though, that the command selected in the Mass Mover Menu affects the result: If you've selected Copy and Replace, the copy of the mirrored measure becomes a normal measure. If you've selected Mirror, the copy of the mirrored measure is another mirror.

To identify mirrored measures in the score

- **From the Window Menu, choose Advanced Tools. Click the Mirror Tool** **.** A mirror icon appears on any measure that's a mirror of a "normal" measure.

To convert mirrored measures into "normal" measures

- **Click the Mass Mover Tool** **and select a region.** See Selecting music for some region-selecting shortcuts.

- **From the Mass Mover Menu, choose Utilities, then Convert Mirrors.** A dialog box appears, asking you to confirm your decision.

- **Click Yes.**

To create a composite mirror

Using the Mirror Tool, you can create a measure that contains intelligent copies of individual notes from several normal measures. The resulting patchwork measure is called a composite mirror. Note: Composite mirroring combines notes from different measures into a single measure. If you want to create a mirror consisting of selected notes from a single measure, copy the entire measure (see "To create a mirror," above), and see "To rebeam or edit an existing mirror," below, for instructions on choosing selective elements of it.

- **From the Window Menu, choose Advanced Tools. Click the Mirror Tool** **; then click an empty measure (the target measure).** The Tilting Mirror dialog box appears, so called because it can be made to "reflect" the contents of any other measure in the score. At the moment, the Tilting Mirror dialog box is blank.

- **Click the up, down, left, or right arrow buttons to maneuver your "window" on the score to the measure whose notes you want to mirror.** Click the up arrow to move up a staff, the right arrow to move to the next measure, and so on. As you proceed, you'll see the contents of each measure you view, adjusted for the target measure's clef. (If you move your "view" to another mirrored measure, it appears blank in this window.)

- **When you're viewing a measure whose notes you want to mirror, drag the "cut bar" handles inward to enclose the desired notes.** The "cut bars" are the dotted lines at each end of the window, whose handles you drag to move them.

- **Click Next.** Finale keeps track of the notes you just selected and restores the cut bars to the ends of the window, ready for another set of notes.

- **Repeat the last three steps, as necessary.** Use the arrows to locate the measure, the cut bars to identify the notes, and click Next to add the selected notes to the target measure. To remove one of the elements of your composite mirror, click the Prev (or Next) button until the notes appear in the window; then click Delete. If you want to insert a new selection between two existing ones, click the Prev or Next buttons until you're viewing the selection after the insertion point; then click Insert. Use the directional arrows and cut bars as usual.

- **Click OK.** The Mirror Attributes dialog box appears. Specify a transposition, and specify musical items to ignore (Don't Draw), as needed.

- **Click OK (or press enter).** The composite measure appears in the score with a mirror icon. If any of your measure-fragment selections were blank, any selections after the blank selection are ignored.

To rebeam or edit an existing mirror

- **From the Window Menu, choose Advanced Tools. Click the Mirror Tool** ▨ **, and shift-click the mirrored measure.** The Mirror Attributes window appears.

- **If you want to rebeam the notes in the measure, click Rebeam, and specify a rebeaming option.** Rebeam to Time Signature beams the notes in the usual way, correcting any peculiar beaming that arose from the use of composite mirroring. If you click Rebeam to Beam Chart, a window appears with a handle on each eighth (or smaller value) note in the measure.

  In this window, you break the beam to a note (from the previous note) by clicking its handle. Any notes whose handles you haven't selected will be beamed when you return to the score. (To beam all notes together, select the first handle in the measure.) Click OK when you're finished.

- **If you want the mirror to display only selected notes (instead of all notes) from the source measure, click Selective Mirror ID.** A picture of the complete composite mirror appears, with a handle on every note. Click the handles of the notes you want to include in this sub-selection of your composite mirror, known as a selective mirror. Any handles you don't select will be omitted from the final display of the measure (or turned into rests). You can use a selective mirror to select the melody notes within a triadic passage, for example. Click OK when you're finished selecting handles.

- **Specify a transposition, if desired. Click OK.**

Fugues

There are several Finale features you may find useful when creating a fugue. First of all, remember that you can create intelligent copies of any motif, so that when you edit or renotate the initial statement, all other occurrences change simultaneously; see MIRRORING.

If you need many individual musical lines on a single staff, remember that you can have up to eight independent voices per staff (four layers, with two voices in each layer). For a more complete discussion of inner voices, see *Installation & Tutorials* and MULTIPLE VOICES. Also keep in mind that you can superimpose two or more staves; just use the Staff Tool to drag one staff until its staff lines are superimposed perfectly on top of another's. In both cases, you can adjust the

positions of individual noteheads and avoid overlapping notes by fine-tuning measures with the Special Tools Tool; see NOTE POSITIONING.