Adjusting the input or output tonality of a DeviceLink

A DeviceLink contains one set of curves for each primary color at the input of its lookup table, and another set of curves at the output. These **Input Tonality** and **Output Tonality** curves are distinct from other types of curves in ColorFlow, such as device, simulation, or conversion curves. Input Tonality and Output Tonality curves exist in a DeviceLink for both curve-controlled devices and non-curve-controlled devices. You can view and adjust the Input Tonality and Output Tonality curves of a DeviceLink.

You can adjust the Input Tonality and Output Tonality to fine-tune a transformation.

1. Do the following:
   - To adjust color on the input device and output device, click **Input Tonality.**
   - To adjust color on the output device but not on the input device, click **Output Tonality.**
2. If you are not satisfied with the color output in one channel only, select and adjust that color channel. For example, you notice that there is an overall magenta cast across all tones, adjust the M channel.
   Below the **Curve Change** graph, there are several sliders that represent different points in the tonal range:

Slider	**Tint In Range (non-flexo)**		**Tint In Range (flexo)**	
	Most affected	**Affects**	**Most affected**	**Affects**
Mindot	Does not appear	Do not appear	Mindot Tint In	Mindot to 25%
Highlights	10%	0 to 25%	10% to 15%	Mindot to 25%
Quartertones	25%	0 to 50%	25%	Mindot to 50%
Midtones	50%	0 to 100%	50%	Mindot to 100%
3/4-tones	75%	50 to 100%	75%	50 to 100%
Shadows	90%	75 to 100%	90%	75 to 100%

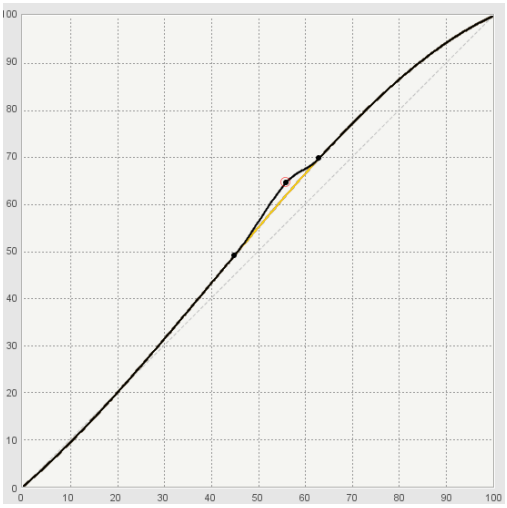
   The value in the box under each slider is a change percentage. The graph appears flat until you make an adjustment. Move the appropriate slider to adjust the corresponding tonal range or enter the tint out change percentage in the box under the slider.

   You can also view or adjust the shape of the curve directly for each color by clicking **Input (Output) Curves** and then make your adjustments.
   Note: If the input curves are discontinuous, the Mindot Tint Out values are 6.25%, you can increase this Tint Out value to make the Mindot darker, but you cannot decrease it to make the Mindot lighter.

a. Click the desired color channel.
b. Do the following:

   - To view tint out values in the graph and table, click the **Tint Out** icon .
   - To view tint change values (Tint Out minus Tint In) in the graph and table, click the **Tint Change** icon .

c. Click the point on the curve that you want to adjust, or type the value in the **Tint In** box.
d. You can also click a point that you want to adjust and then click two anchor points on either side of the point to constrain a range of your adjustment. The curve will not be affected at tint values outside of these anchor points.



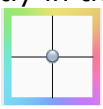
e. Drag the adjustment point up to darken the output or drag it down to lighten the output, or type a value in the **Tint Out**/**Tint Change** box.
   Your adjustment may be restricted in order to keep the curves monotonically increasing.

3. If you want the color output to be lighter or darker in a certain range but you want to maintain the overall color, or if you want to correct a color cast in a certain range of gray, adjust the CMY channels.

   a. Click **CMY**.
   b. Select the tonality range (Highlight, Quartertone, Midtone, or 3/4-tone) in which you want to adjust the neutral balance.
   c. The displayed color patch demonstrates the effect of your adjustments.

      The color produced before your adjustment is shown on the left. Your adjustment is shown on the right.

i. To display the color patch in a larger view for easier color comparison, click anywhere in the color patch.
ii. Adjust color cast, lightness, or both by the following:

- Use the lightness (L*) slider to make the color darker or lighter. You can also enter the **L*** value directly in the **Color Change** columns.
- Use the cast (a*b*) selector  to adjust the color cast. You can also enter the **a***, **b*** values directly in the **Color Change** columns.

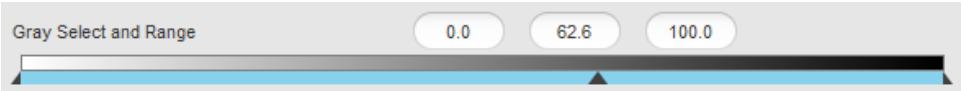
d. The color patch displays the output color. If the displayed color does not visually align to the color on your proof or press sheet, you can adjust the displayed color in the color patch:
   i. Select the **Adjust Displayed Colors** check box.
   ii. Use the lightness (L*) slider and the cast (a*b*) selector to change the displayed color to align to the color on your proof or press sheet. This color change does not affect any curves or color control elements. You are only adjusting the displayed color of the patches.
   iii. To reset the display to the default displayed color, click the **Reset** icon .
   iv. When you achieve the correct color, clear the **Adjust Displayed Colors** check box.

You can also view or adjust the shape of the CMY curve directly clicking **Input (Output) Curves** and then make your adjustments.

a. Click **CMY**.
b. Do the following:

- To view tint out values in the graph and table, click the **Tint Out** icon .
- To view tint change values (Tint Out minus Tint In) in the graph and table, click the **Tint Change** icon .

c. Move the sliders below the graph to constrain the range of your adjustment and to select the center of your adjustment.

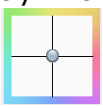


The curve will not be affected at tint values outside of this range. There are implied anchor points at 0% and 100%.

d. The color patch displays the output color. If the displayed color does not visually align to the color on your proof or press sheet, you can adjust the displayed color in the color patch:
    i. Select the **Adjust Displayed Colors** check box.
    ii. Use the lightness (L*) slider and the cast (a*b*) selector to change the displayed color to align to the color on your proof or press sheet. This color change does not affect any curves or color control elements. You are only adjusting the displayed color of the patches.
    iii. To reset the display to the default displayed color, click the **Reset** icon .
    iv. When you achieve the correct color, clear the **Adjust Displayed Colors** check box.
e. The displayed color patch demonstrates the effect of your adjustments.

    The color produced before your adjustment is shown on the left. Your adjustment is shown on the right.

    i. To display the color patch in a larger view for easier color comparison, click anywhere in the color patch.
    ii. Adjust color cast, lightness, or both by the following:

- Use the lightness (L*) slider to make the color darker or lighter. You can also enter the **L*** value directly in the **Color Change** columns.
- Use the cast (a*b*) selector  to adjust the color cast. You can also enter the **a***, **b*** values directly in the **Color Change** columns.

4. You can:
    - View the effect of your adjustments on an image before you apply your changes
    - Undo or redo your previous adjustments
5. When you are satisfied with your changes, click **Apply**.