Creating a derived print calibration curve

The following table provides a side-by-side comparison of the same tasks in the two software. The left column lists the tasks you would perform in Harmony; the right column lists the equivalent tasks in ColorFlow:

Harmony	ColorFlow

Create a print current curve	1. In the **Print Curves** tab, under **Calibration Curves**, click the **Add** button ![+].
	 2. Add your device in the viewer window.
	 3. Click the **Properties** icon ![i] and define the device condition.
	 4. Click the **Measurement** icon ![⌖].
	 5. You can either measure a chart or import an existing Harmony current curve with real measurement data.
	
	    a. In the **Chart** tab, click the **Add** button ![+].
	    b. In the **Chart Type** dropdown list, select **Tint Ramp**.
	    c. Click **Save**.
	    d. Print the tint ramp chart with the device condition that you want to calibrate.
	    e. Click **Measure**.
	    f. In the **Characterization Print Curve** dialog box, choose the print curve used to output the tint ramp chart in Prinergy.
	    g. Click **OK**.
	    h. Follow the measurement wizard to measure or enter your measurements.
	
	    a. Click the **Measurements** tab.
	    b. Click **Import**.
	    c. Locate and select the Harmony file.
	    d. Click **Open**.
	    e. Click **Close** to close the **Device Measurements** window.

Create print target curve	
	1. Click the **Conversion** icon .
	2. If you want the curve to be visible in Prinergy, select the **Show curves in Prinergy** check box.
	3. Click the **Process Inks** tab and select the desired target device condition from the **Target** dropdown list. ColorFlow provides a list of built-in industry CMYK specifications that you can use as your target response. If you can't find the desired target from the list, you can create a custom CMYK Reference device condition as your target.
	a. Click the **Device Conditions** tab and then click the **Add** icon . The **Device** window appears.
	b. Drag the **CMYK Reference** to the viewer window.
	c. In the device condition, click the **Properties** icon .
	d. In the **Name** list, type a name.
	e. In the **Separate Same As** list, select a device type that best represents the black generation strategy of the reference device condition. For the **US Web Coated SWOP** reference, select **Offset Press - Heatset Web.**
	f. Click **OK**.
	g. Click the **Measurement** icon .
	h. In the **Device Measurement** dialog box, click the **Add** button .
	i. From the **Chart Type** list, select **Tint Ramp**.
	j. Click **Save**.
	k. Click **Measure**.
	l. Click **Enter manually**.
	m. Click a color channel (**C, M, Y,** or **K**), or in the **Channel Binding** section, select **C, M, Y Same** or **C, M, Y, K Same**.
	n. In the **Tonal Response** section, double-click the EDA area of a desired tint in, and then enter your EDA value.
	o. Click **OK** and close the **Device Measurement** dialog box.
	p. In the **Device Conditions** list table, find the device condition that you just created and select the **Show in Target List** check box.
	4. Click the **Spot** Inks tab and select a spot ink target if applicable.
	5. In the **Curves Method** list, select **Tonal Match**.
	6. Click **OK**.
Create a derived calibration curve based on the print current and target curve	The print calibration curve is generated for you
Edit the print calibration curve:	1. Click the **Conversion** icon .

1. Edit the print current curve.
2. Edit the print target curve.
3. Re-create the print calibration curve based on the modified current and target curves.

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.

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.
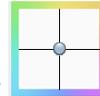
        - Use the cast (a*b*) selector to adjust the color cast. You can also enter the **a***, **b*** values directly in the **Color Change** columns.
    d. The color patch displays the output color. If the displayed color does not visually align to the color on your proof or press sheet, you can adjust the 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.
4. You can click **Calibration Curves** to display the curve graph and see the result of you adjustments.
5. To preview the effect of your adjustments, click **Preview** and select an image file.
6. Click **Apply**.