

Activity 14: Use a print curve to align a press with a custom specification for tonal match

Background

Contents

ColorFlow provides several built-in CMYK reference device conditions that encapsulate the color response of industry specifications or printing aim points. If you want to use an arbitrary color response that you have measured from a printed sample, such as a supplied proof or purchased reference sheet, you can create a custom CMYK reference device condition. This activity is to create a print calibration curve to match a custom specification that you create.

Tasks

Goal

Create a custom CMYK device condition using a set of measurement data and then refine a print calibration curve that you created in [a previous activity](#) to match the custom CMYK device condition.

Task 1: Create a custom CMYK device condition

1. Click the **Device Conditions** tab.
2. Click the **Add** button .
3. Drag the **CMYK Reference** to the viewer window.
4. Click the **Properties** icon .
5. In the **Name** box, enter XX custom device condition (where xx = your initials).
6. Click **OK**.
7. Create a Tint Ramp chart:
 - a. Click the **Measurement** icon .
 - b. In the **Charts** section, click the **Add** button . A chart appears in the **Charts** list with a default name.
 - c. From the **Chart Type** list, choose **Tint Ramp**.
 - d. In the **Tint Set** section, click the **Edit** button .
 - e. Click the **Add** button  and enter 0 10 25 50 75 90 100.
 - f. Click **OK**.
 - g. Click **Save**.
8. Enter the measurement value:
 - a. Click **Measure**.
 - b. Click **Enter manually**.
 - c. In the **Channels Binding** section, click **C, M, Y, K Same**.
 - d. In the **Tonal Response** section, enter the following EDA values:

Tint in	EDA
0	0
10	14

25	34
50	69
75	84
90	94
100	100

- e. Click **OK** and close the **Device Measurements** dialog box.
9. In the **Device Condition** list table, find the CMYK device condition you just created and select the **Show in Target Lists** check box.

Task 2: Redefine the print curve target

1. In the **Calibration Curves** table list, click **XX new print calibration curve for tonal match** to show it in the viewer window.
2. Click the **Conversion** icon .
3. Click **Redefine**.
4. Click the **Process Inks** tab and choose **XX custom device condition** from the **Target** list.
5. From the **Curves Method** list, choose **Tonal Match**.
6. Click **OK**.
A print calibration curve is generated to match the custom device condition you created.

Task 3: Output a job using the newly created print calibration curve

1. In Prinergy, create a new job, and name it as XX tonal match for custom spec (where XX = your initials).
2. Refine [Chart_TintRamp_CMYK.pdf](#) with 1stRef-Normz.
3. Output the PDF file using Virtual Proof.LoosePage with the print curve you just created:
 - a. In your **Virtual Proof.LoosePage** Process template dialog box, from the **Output To** list, choose **Virtual Proof**.
 - b. Leave **ColorFlow Color Relationship Management** unchecked.
 - c. Expand the **Calibration & Screening** panel.
 - d. Click the **ColorFlow Current State** radio button.
 - e. Expand the **Print Curve** drop down list and select curve **XX new print calibration curve for tonal match**.
4. Open the generated page in VPS and measure the 10%, 25%, 50%, 75%, and 90% black patch.
Confirm that the plate calibration curve has been applied: 10% measures 10.7; 25% measures 30.8; 50% measures 59.9; 75% measures 79.4; 90% measures 89.6.

Outcome

You have created a print calibration curve to tonal match a custom specification.