Activity 9: Use a color setup to align a press with an industry specification for gray balance

Background

You can align a printing device with an industry specification by creating a color setup, adding your device as the PCO, and selecting the industry specification as the PCO simulation target.

The PCO may have a colorimetric response or a tonal response, depending on the color response type in its device condition and the way the simulation target is defined:

- If the device condition in the PCO has a color and tonal response, you can generate ICC Device and DeviceLink profiles and use the tonal-match method or the gray-balance method to generate curves.
- If the device condition in the PCO has a tonal color response, or if the simulation target contains only tonal data (for example, if the simulation target is an ISO TVI curve), you can only use the tonal-match method to generate simulation curves.

Tasks

Goal

Create a color setup and add a press as the PCO, and then import a measurement data file to establish a colorimetric response and a tonal response. This generates gray balance curves to align a press with an industry specification. Note that the device profile is only required if you are generating DeviceLinks. For this activity, there is no need to create a DeviceLink for final output so you don't need to generate the device condition profile and the PCO profile.

Task 1: Create a new color setup and add a press as the PCO

1. In ColorFlow, click the **Color Setups** tab, and then click the **Add** button ➕.
2. The **Devices** dialog box appears. If necessary, open it manually by selecting **View** > **Devices** or by double-clicking the **color setup viewer**.
3. From the **Devices** dialog box, add a new offset press device:
   a. Click **Add Device**.
   b. In the **Device Type** list, select **Offset Press - Sheetfed**.
   c. Name the device as **Press A**.

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    d. Drag **Press A** to the center of the viewer window.

4. In the **Color Setups** table, double-click the name of the color setup you just created and enter `GRACoL C1 2006`.
5. Select the **Show in Prinergy** check box.
6. Click the **Properties** icon icon and define new properties for the device condition:
       a. Click the **Edit** button next to the **Plate Setup** list.
       b. In the **Plate Type** list, add or select **Kodak Thermal Gold**.
       c. In the **Screening** list, add or select **200 lpi**.
       d. In the **Plate Line** list, add or select **100**.
       e. Click **OK**.
       f. In the **Substrate** list, add or select **Type 1**.
       Note: if you select properties that were used in a previous activity, the message **Use Existing Device Condition** appears. For the purpose of this training, you must use unique properties.
7. Click the **Measurements** icon .
8. In the **Charts** list, click **P2P25Xa i1iSis** (or **P2P25 i1iO**).
9. In a real-life situation, you would need to export the chart, output the chart from Prinergy, and then measure the chart in ColorFlow. For the purpose of this training, you import a sample data file from your ColorFlow installation folder:
       a. Click the **Measurement** tab.
       b. Click **Import**.
       c. In the dialog box appeared, keep the default value and click **OK**.
       d. Browser and select **Program Files\Kodak\ColorFlow\SampleData\Measurements\ColorFlowSheetfed200lpiType1Linear.cgt**
       e. Click **Open**.
       f. Click **Close**.

Task 2: Complete the color setup

1. Click the **Simulation** icon
2. From the **Target** list, select **GRACoL 2006 Coated 1**.
3. From the **Curves** list, select **Gray Balance**.
4. From the **DeviceLink** list, select **None**.
5. Click **OK**.

Task 3: Output a page using the color setup in Prinergy

1. In Prinergy, create a new job, and name it as `XX Press to Industry Spec` (where XX = your initials).
2. Refine GrayBalanceTestFile.pdf with 1stRef-Normz.
3. Create a new Loose Page Output Process Template, and name it as `VPS - GRACoL`:
       a. In the **Output To** list, select **Virtual Proof**.

b. Select the **ColorFlow Color Relationship Management** check box.
c. For **Halftone Output Mode**, select **Print Production** .
d. In the **Snapshot** list, select **Current State**.
e. In the **Color Setup** list, select **GRACoL C1 2006**.
f. In the **Device** list, select **Press A**.
g. Select the **Device Condition**.
h. In the **ColorConvert** settings, leave the **Match Colors In Page Content** check box cleared. Color matching will not be applied on output.
i. Save the process template.

4. Select the test refined file, and process it with the process template **VPS - GRACoL**.

Outcome

You have created a color setup to align a press to the GRACoL specification. The advantage of using a color setup rather than a print calibration curve to align a press with a specification is that you can align other printing devices with your press by adding them as the SCO in the color setup.