

# Activity 6: Use a print curve to align a press with an industry specification for gray balance

## Background

## Contents





You can create a print calibration curve to adjust tonality by simultaneously calibrating cyan, magenta, and yellow inks so that the neutral shades of gray are maintained, while black is calibrated separately for lightness and darkness.

## Tasks

### Goal

Create a print calibration curve for gray balance using a P2P25 chart.

### Task 1: Create the print calibration curve

1. In ColorFlow, click the **Print Curves** tab.
2. In the **Calibration Curves** section, click the **Add** button .
3. The **Device** dialog box appears.
4. Drag the device "**XX Offset Press**" that you created in [a previous activity](#) to the viewer window.
5. Click the **Properties** icon  and define the device condition:
  - a. From the **Plate Setup** list, choose **Kodak Electra Excel, 200, Offset Press Sheetfed**.
  - b. From the **Substrate** list, choose **Type 1 or 2 (coated art) 170 g/m2**.
  - c. Click **OK**.
6. Click the **Measurement** icon .
7. In the **Charts** list, click **P2P25Xa i1iSis** (or **P2P25 i1iO**).
8. In a real-life situation, you might need to download a P2P25 chart from <http://www.idealliance.org>, output the P2P25 chart from Prinergy, and measure the chart in ColorFlow. For the purpose of this training, you import a sample P2P25 data file:
  - a. Click the **Measurements** tab.
  - b. Click **Import**.
  - c. In the dialog box appeared, keep the default value and click **OK**.
  - d. Select the sample [P2P25 data file](#).
  - e. Click **OK**.
  - f. Click **Close**.
9. Define the conversion target to an industry specification:
  - a. Click the **Conversion** icon .
  - b. Select the **Show curves in Prinergy** check box.

- c. Click the **Process Inks** tab and choose **GRACoL 2006 Coated 1** from the **Target** list.
- d. From the **Curves Method** list, choose **Gray Balance**.
- e. Click **OK**.

A print calibration curve is generated to match the chosen industry specification.

10. In the **Calibration Curves** table list, double-click the name of the curve that you just created and enter `XX new print calibration curve for gray balance` (where `xx`= your initials).

## Task 2: Output a page using the print calibration curve in Prinergy

1. In Prinergy, create a new job, and name it as `XX print Curve for gray balance` (where `XX` = your initials).
2. Refine [GrayBalanceTestFile.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 **XX new print calibration curve for gray balance**.
4. Open the generated output in VPS and measure 50% patch.  
 Confirm that the gray balanced print calibration curve has been applied. 50% cyan should measure 51.6. 50% magenta should measure 53.2. 50% yellow should measure 51.3. 50% black should measure 43.9.

## Outcome

You have created a print calibration curve to match an industry gray balance specification.