Activity 40: Apply plate and print calibration curves

Who should complete this activity

- Prepress operators who specify calibration curves for output
- System administrators

Why you should complete this activity

In Prinergy Evo, calibration refers to the process of modifying the size of halftone dots to ensure that output has the intended tonal response. There are a number of reasons why you might choose to calibrate output:

- Offset printing introduces dot gain. Depending on paper stock, press conditions, and other factors, the size of halftone dots on plate must be reduced to allow for that fact that they will expand on the printed piece. The print curve is used to provide this functionality.
- Some output devices (for example, the Kodak Magnus 800 with Fiber Head platesetter) are inherently nonlinear and output must be adjusted, so that halftone dots produced on the plate are the size that was intended (for example, 50% in a desktop application is 50% on the plate) over the entire tonal range. The plate curve is used to make this adjustment, if required.
- Some high-energy plates are nonlinear and require adjustment to ensure that halftone dots on the plate are the size that was intended. The plate curve is used to make this adjustment. If you use multiple device types (for example, Quantum and Fiber Head) and multiple plate types, then you may require multiple plate curves.

Calibration is a complex subject and a full description is beyond the scope of this activity. Consult the Harmony User Guide for a detailed description of how to set up calibration curves for a Prinergy Evo workflow.

Recommended reading

- Prinergy Evo Workflow Client user guide for your version of Prinergy Evo Workflow software. Search for:
  - Output from Imposition: Calibration and Screening
  - Plate curves, print curves
- The Harmony User Guide, available in Answer ID 25347 of your service and support portal.
- The Plate Control Strip 4.0 User Guide, available in Answer ID 21907 of your service and support portal.

Time required to complete this activity

30 minutes

What you'll learn

The activity files provided for this exercise demonstrate five different combinations of plate curves and print curves. While other combinations are possible, the combinations chosen demonstrate the interaction between the two types of curves. For example, press marks may be calibrated independently from page content, they may be calibrated with the same curve that calibrates page content, or both press marks and page content may be calibrated with print curves and page curves multiplied together.

What you'll need

- In the location to which you extracted the activity files, find the **Activity 40** folder and its subfolders and files.
- Using what you learned in Activity 39, import the Activity 40 process and workflow templates to your Prinergy Evo system.
- Copy the **Kodak Plate Control Strip** subfolder from the Activity 40 folder into the **MarkSets** folder in the PgyEvoConfig share on the Prinergy Evo system.
- From the **Harmony Curves** subfolder in the **Activity 40** folder, install the calibration curves from the `Linear Cut Back Plotter Proofs.hmy` database into Harmony. Then restart Prinergy Evo or the Printer JTP.
  For instruction on importing Harmony curves into Harmony, see the Harmony User Guide.
- Install the latest version of the Virtual Proofing System in the Evo Client computer.

What you'll do

- Apply plate curves to compensate for nonlinearity in output devices and media.
- Apply an appropriate print curve to compensate for dot gain on press.
- Control the application of the print curve to selected marks types in a job.