Getting started

Using curves for tonal calibration

Applying calibration curves to a printing plate is a standard method of controlling color on curve-controlled devices such as offset presses and digital halftone proofers. When a device images plates, a calibration curve changes the natural color response of a device by adjusting the tint percentage, either reducing a tint (cutback) or increasing a tint (boost), in the digital file.

To control color by curves, you can first create a plate calibration curve to linearize a plate for a particular plate type, device type, screening, and plate line. Plate curves can help stabilize plating so that the result on press is more repeatable.

Next, you can create a print calibration curve to make the response of a curve-controlled output device condition match the response of a target device condition. Or, you can create a print transfer curve to control the response without measuring a response and defining a target.

When you select G7 calibration, the Calibration Target shows **G7**. Unlike other calibration targets like GRACoL or a FOGRA specification, the G7 target does not define an absolute, independent response to which your press work is aligned. Instead, G7 defines an ideal response from the measured response of your press device condition. Specifically, G7 calibration produces C, M and Y calibration curves so that your calibrated press work has the following properties:

- Specific tints of C, M and Y, with K=0, will produce a visually neutral gray on the press sheet. For example, CMYK (50, 40, 40, 0) will be neutral.
- The neutral tonality produced by the CMY tints defined above provides visual similarity between two G7-calibrated printing systems.
- The neutral tonality produced by a Black-only ramp provides visual similarity between two G7-calibrated printing systems.

Using color setups for color relationship management

A color setup is the virtual structure that you build to define the color relationships among the devices used for a specific printing task. It includes devices, device conditions, a simulation target, and color control elements, such as DeviceLink profiles and curves. A color setup manages how its device conditions simulate the primary color output (PCO). If you edit the color response of a device condition, ColorFlow ensures that related color control elements in the color setup are updated to reflect the edit.

To create a color setup, you need to add devices that represent the physical devices in your shop, choose a device to act as the PCO, define the device condition of that device, characterize its color response, and select its simulation target.