Creo Inc.
3700 Gilmore Way
Burnaby, B.C., Canada
V5G 4M1
Tel: 1.604.451.2700
Fax: 1.604.437.9891

Request support:
ecentral.creo.com

www.creo.com

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Technical bulletin

Eliminating Scum Dot using Prinergy Powerpack

This document describes how to configure Prinergy Output Process Plans to prevent the creation of *scum dot* in non-printing areas of flexographic plates. Scum dots are stray dots that show up in non-image areas of a plate where they should not print. Usually, workflows manage scum dots by using a Calibration Curve (Harmony Curve) to clip off extremely light highlight values. Prinergy requires the setting of a specific minimum dot size in output process plans to compensate for the inability of Harmony to affect target tints of less than 1%.

Narrow/Mid Devices using Brisque Connectivity to Prinergy

Many existing ThermoFlex Narrow or Mid devices use a Brisque for connectivity from Prinergy to the device. The Brisque only transfers pre-screened TIFF data created in Prinergy. Since Brisque does not create any screening, it does not have any ability to change tonal values in Prinergy output. For this reason, Excurve on Brisque cannot be used to modify tints to eliminate scum dot with Prinergy workflows. All tonal correction must be done in Harmony and Prinergy.

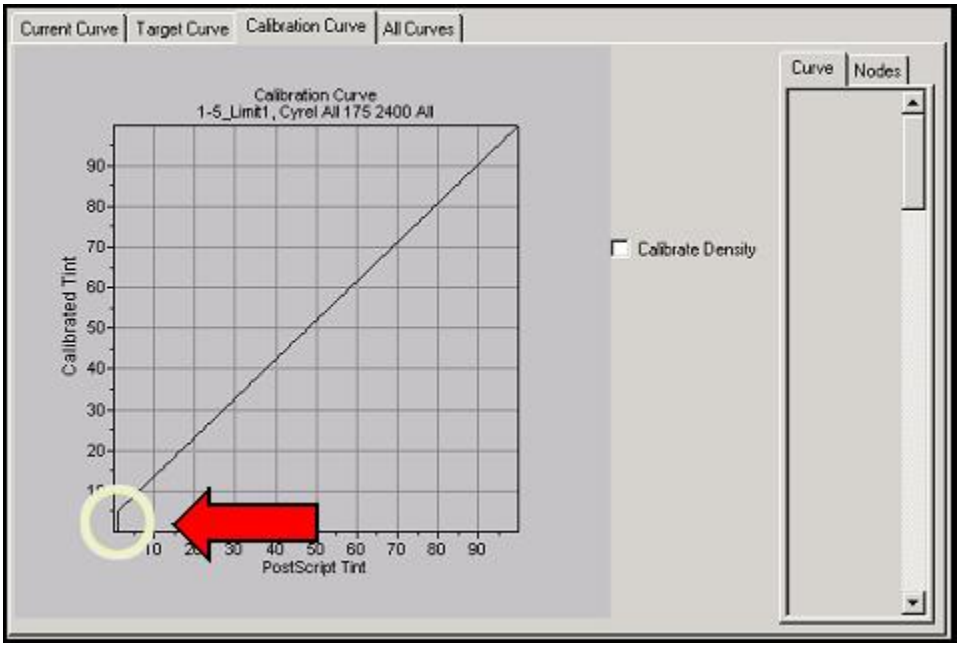
Setting Minimum Dot Size

Flexo printers will determine what minimum dot size they can image and hold on press. With Creo ThermoFlex devices, the minimum dot specified for output may not be the minimum dot created on the final plate.

A Creo ThermoFlex device may image a 5% dot on the optical black mask, but due to the effects of oxygen inhibition and dot sharpening, this 5% mask dot may result in a final 1% or 2% dot on plate.

When the printer has determined what minimum dot can be held, place this value in Harmony as the 1% Target Curve value. In Harmony, 1% is the minimum tint value that can be “bumped”. (The example on the next page uses 5% as a minimum value and assumes that linear output is desired.)

Figure 1: Calibration Curve

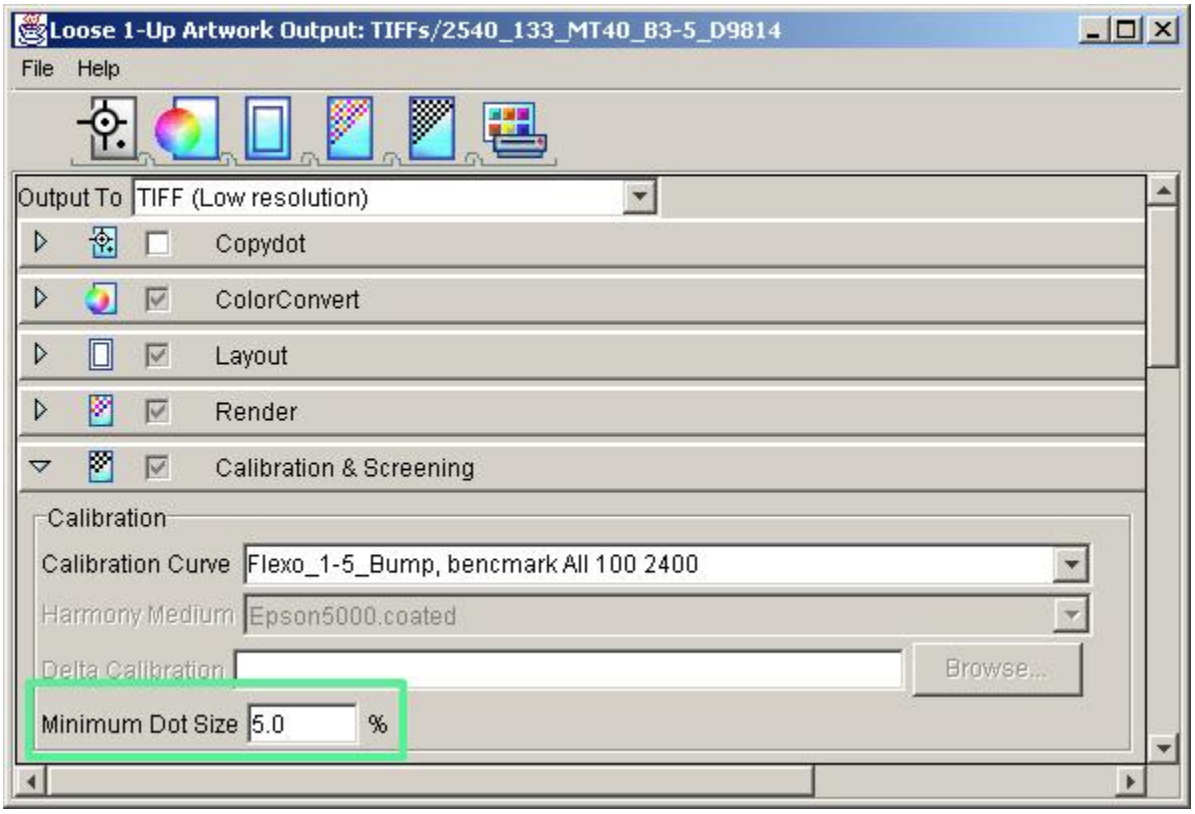


All input values of 1% will now be adjusted to output at 5%, but input values below 1% will not be adjusted up to the minimum target value.

The dots created in these areas below 1% will not fully develop on plate, but will cause the floor of the plate to rise and result in problems during printing. When impression is applied, these non-printing areas can transfer ink and sometimes print darker than the minimum specified dot areas. In flexo printing, this phenomenon is often referred to as scum dot.

To prevent this from happening, a minimum dot size needs to be specified in a Prinergy Output Process Plan. Once a Calibration Curve has been specified in the Output Process Plan, the Minimum Dot Size box becomes active. Enter a number in this box equal to the Bump Value. In the example shown on the next page, 5% has been entered as the Minimum Dot Size. A 5% tone will still print, but all values less than 5% will be clipped from the final output file.

Figure 1: Setting Minimum Dot Size



About Creo

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