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# Customer Bulletin

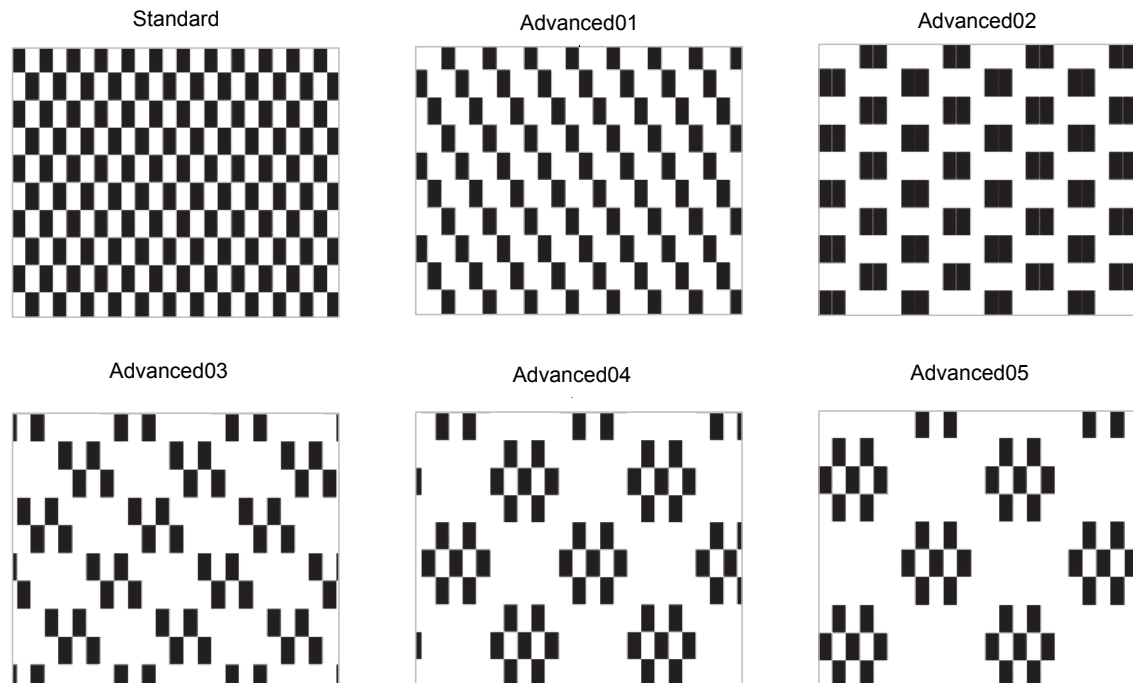
## Kodak DigiCap NX Patterning - Application and Implementation Recommendations

### Overview

Kodak DigiCap NX Patterning now supports advanced DigiCap NX patterns for different print applications. Advanced DigiCap NX patterns provide for optimal ink flow and solid ink coverage. This bulletin provides guidance on pattern usage, press fingerprinting, plate mounting, and press setup recommendations. Carefully evaluate the advanced patterns and understand their performance before using them in production.

In addition to the Standard DigiCap NX pattern, there are five advanced DigiCap NX patterns.

The Standard and Advanced01 patterns are used with process inks. The Advanced02 pattern is used with process and spot inks printed with medium volume anilox rolls. The other advanced patterns are used with spot, metallic and white inks printed with higher volume anilox rolls.



### Applying advanced DigiCap NX

Advanced DigiCap NX patterns are enabled in TIFF Assembler Plus V3.1 and later.

**Note:** DigiCap NX patterning is only available in the Microsoft Windows version of TIFF Assembler Plus software.

When the **Apply DigiCap NX** option is enabled in a TIFF Assembler Plus layout, you select the standard pattern or one of the advanced patterns from a list, and direct the output to a Production Manager hot folder that supports DigiCap NX imaging.

**Note:** When a TIFF Assembler Plus layout is enabled to apply DigiCap NX patterning, the Output folder selected in the Layout Setup must support DigiCap NX imaging.

Advanced DigiCap NX patterns cannot be applied by Production Manager hot folders.

DigiCap NX pattern choice depends on the print application.

## Application recommendations for process inks

Pattern selection is dependent on anilox volume.

DigiCap NX pattern	Anilox volume
Standard	Less than 2.2 bcm (3.4 cm <sup>3</sup> /m <sup>2</sup> )
Advanced01	2.2–3.0 bcm (3.4–4.6 cm <sup>2</sup> /m <sup>2</sup> )
Advanced02	2.5–5.0 bcm (3.9–7.7 cm <sup>2</sup> /m <sup>2</sup> )

The Advanced02 pattern enables additional flow and provides more uniform ink distribution to edges. If the Advanced02 pattern is printed with the same anilox volume as the Standard or Advanced01 patterns, it delivers lower density. The Advanced02 pattern generally requires higher ink volume to achieve similar density.

- **Impression:** Carefully evaluate impression settings. The improved ink flow achieved with advanced DigiCap NX patterns may allow lower impression settings and enable improved highlight gain.
- **Inks:** Optimize inks to meet the recommended solid area density aims. Inks optimized for use with Standard DigiCap NX may require re-optimization for the Advanced01 pattern.

## Fingerprinting press

Single-color fingerprints are recommended as a first step in evaluating the standard and advanced DigiCap NX patterns. Fingerprints with the Standard pattern and at least one of the advanced patterns are recommended. For most applications Standard and Advanced01 are appropriate. Advanced02 can be included if higher volume anilox rolls are used.

- Use only a single pattern on a fingerprint form to avoid confusion. Each pattern may require different press and ink setup for optimal performance. Run fingerprints with the recommended tapes.
- Use a fingerprint target that reflects the screening that will be used in production. Run the target without applying a compensation curve.
- To determine the appropriate compensation curve for use in production, measure the dot gain of the 50% patches on the fingerprint press output.

## Plate mounting and press optimization

[Kodak Flexcel NX Plates Best Practices for Print Performance](#) (SKV answer #62383) apply when either the standard or advanced DigiCap NX patterns are used.

**Tape:** Standard or medium soft tape, such as the 3M 10 or 13 series mounting tape or equivalent, is recommended for general use. Consider fingerprinting with both types of tape. If a harder tape has been used in the past to improve solid ink uniformity, evaluate a one-step softer tape when the Advanced01 or Advanced02 patterns are enabled. The advanced DigiCap NX pattern facilitates uniform solid ink laydown, and the recommended tape durometer provides optimal highlight dot gain performance.

## Recommended solid ink density aims

	Film and coated paper	Uncoated paper
Cyan	1.50–1.60	1.25–1.35
Magenta	1.40–1.50	1.15–1.25
Yellow	1.00–1.10	0.90–1.00
Black	1.65–1.75	1.30–1.40

## Application recommendations for white and spot inks

### Pattern selection for solvent-based white and spot ink on film

DigiCap NX pattern	Anilox volume
Advanced02	2.5–5.0 bcm (3.9–7.7 cm <sup>3</sup> /m <sup>2</sup> )
Advanced03	4.0–6.0 bcm (6.2–9.3 cm <sup>3</sup> /m <sup>2</sup> )
Advanced04	6.0–8.0 bcm (9.3–12.4 cm <sup>3</sup> /m <sup>2</sup> )
Advanced05	Greater than 8.0 bcm (12.4 cm <sup>3</sup> /m <sup>2</sup> )

**Note:** Recommendations for UV and aqueous inks are in development.

### Fingerprinting press

For new print applications with white or spot inks, or coatings, perform a print trial with the advanced DigiCap NX patterns. Select the pattern that provides the optimum results.

- White ink:** Select the best pattern by evaluating fingerprints for pin holes and overall visual uniformity and opacity.  
 For accurate opacity measurements, take 10-20 readings around the print cylinder, and average the reading results.  
 If two patterns give similar results, select the lower-numbered advanced patterns.
- Spot colors:** Select the best pattern by evaluating fingerprints for solid area density, ink laydown uniformity, reverses, and midtone and highlight dot gain.

### Press optimization

Minimum impression (kiss +1) is recommended for most uniform white results.

For additional information on the Kodak Flexcel NX System, visit <http://www.graphics.kodak.com>. For additional information and recommendations for producing a Flexcel NX plate, refer to individual documents within your Kodak service and support portal: <https://partnerplace.kodak.com>.