G7, GRACoL and Stochastic Screening

presented by

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What are GRACoL and G7?

- GRACoL is a task force formed to author guidelines on best practices in printing
- GRACoL 7 is the latest set of guidelines
- G7 is the proof-to-press system promoted by IDEAlliance, drawing from the latest industry research

IDEAlliance
Proof-to-Print Process™

GP
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How does G7 work?

- Installed scanning spectrophotometer for matching proof output with press using ISO 2846 compliant inks
- Matching on visual appearance (colorimetric) rather than thickness of dots (densitometric)
- Focus on gray at highlight, mid-tones and shadows
- “G7” = Gray + 7 ISO inks used in proofing

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Why does G7 matter?

- Better visual match proof to press
- Better visual matching across substrates, including coated and uncoated paper
- Better color management across printing equipment
- Global is G7 certified
  - Major investment in proofing and press color management systems
  - G7 is required for standards-based stochastic screening

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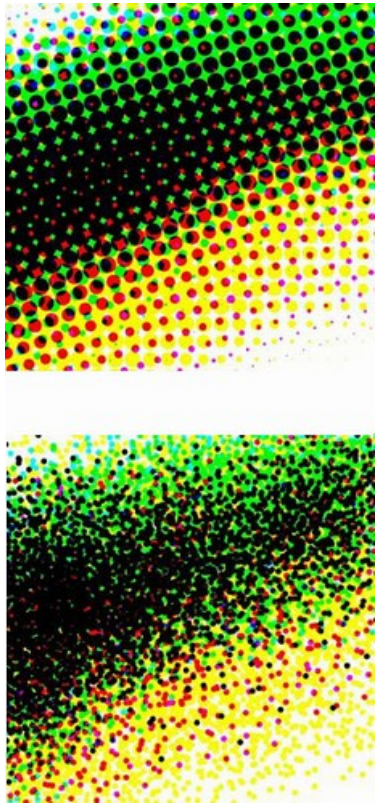
What is stochastic screening?

- Also known as FM screening (evolved from AM screening)
- Dots are the same size (20.1 microns) but randomly placed
- Process requires special software and platesetter



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The benefits of stochastic screening

- Moiré-effects that are generated by traditional half-tones are eliminated
- Screen dots are much smaller, so image details look better
  - Skin tones look more realistic
  - Gradients appear smooth
- Colors are more stable on press

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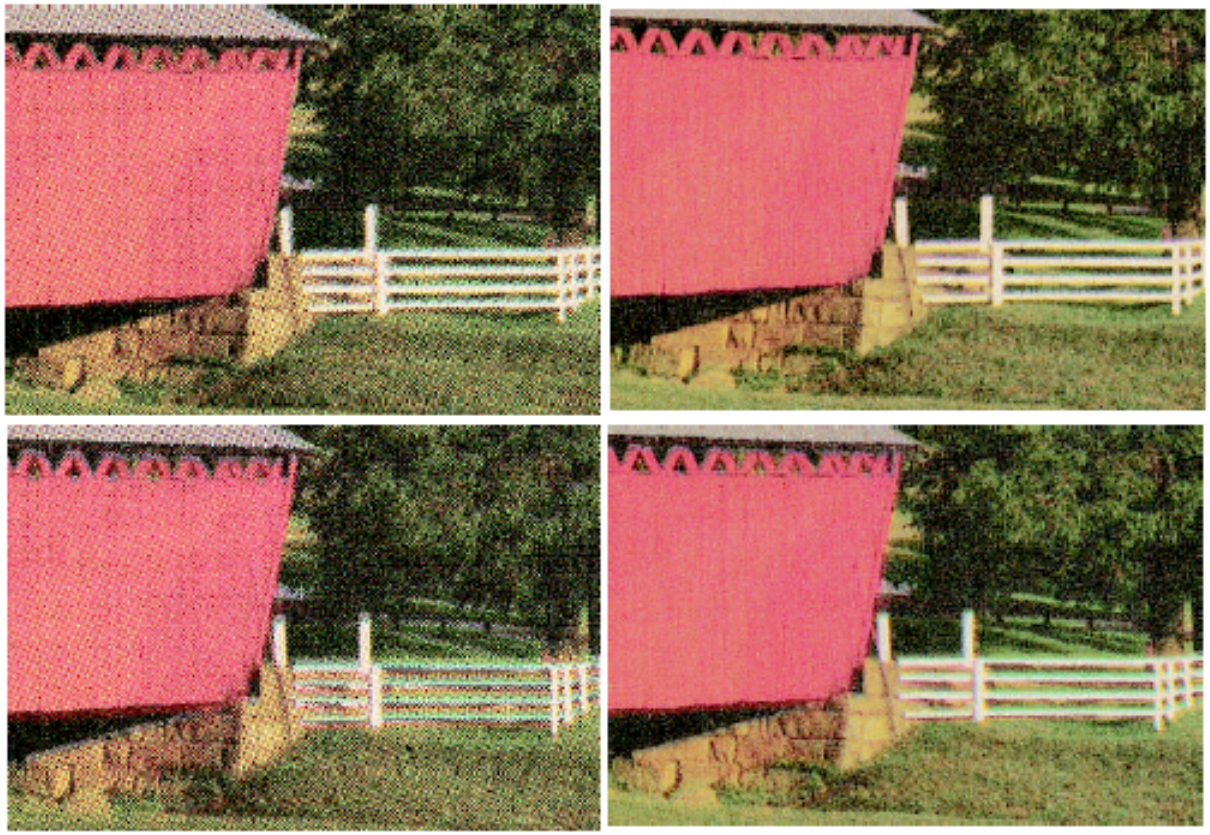
Reduces visual effect of mis-registration



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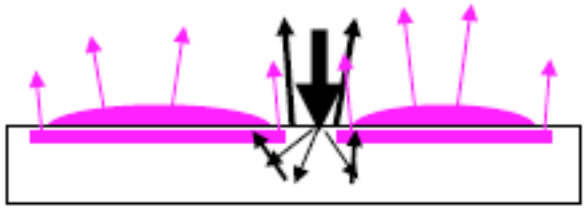
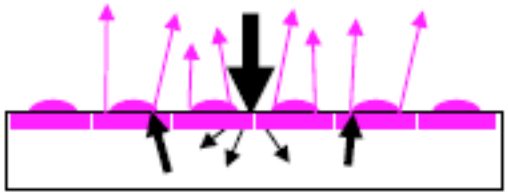
Less Paper Effect



Conventional screen mid-tones allow paper reflection – paper color directly affects printed color



Stochastic mid-tones minimize the direct reflection of paper because of the refraction of light – minimizes the affect of paper on printed color

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www.globalprinting.com