



# Auraia 7 Ink Savings

## Hamillroad Software, 2012-2017



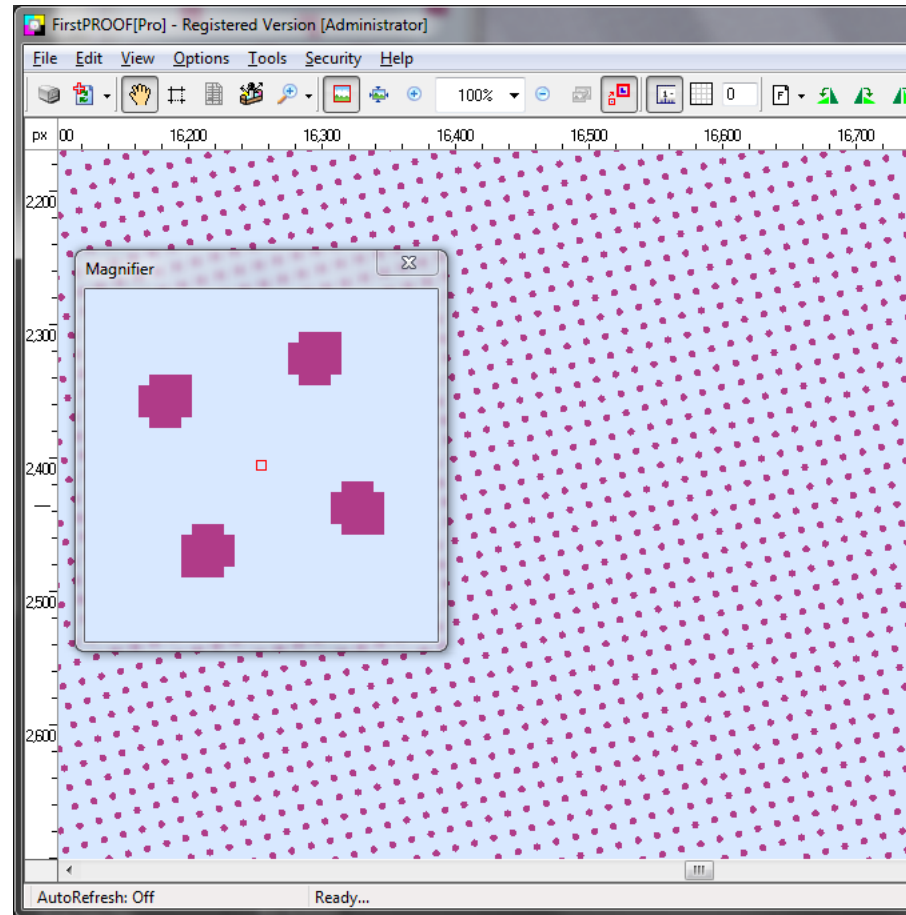
## Ink savings with FM

- Proven in various studies that FM (stochastic) screening saves ink
  - See <http://www.printing.org/page/8736>  
**Printing Industries of America - Graphic Arts Trade Association**  
**Effect of AM Versus FM Screening on Ink Consumption on a Sheetfed Offset Lithographic Press**
  - See <http://qualityinprint.blogspot.com/search/label/ink%20saving>  
**Quality in Print Blog – Gordon Pritchard, former Print Quality Marketing Manager for 11 years at Creo/Kodak**  
**Using FM Screening for ink savings**
- 
- FM screening can produce ink savings of up to 15%
  - DM screening can produce ink savings of up to 30%
  - FM screening typically produces ink savings of 3-4%
  - DM screening typically produces ink savings of 17-18%



# Dot Structure (AM)

Uses  
Large(r)  
Dots



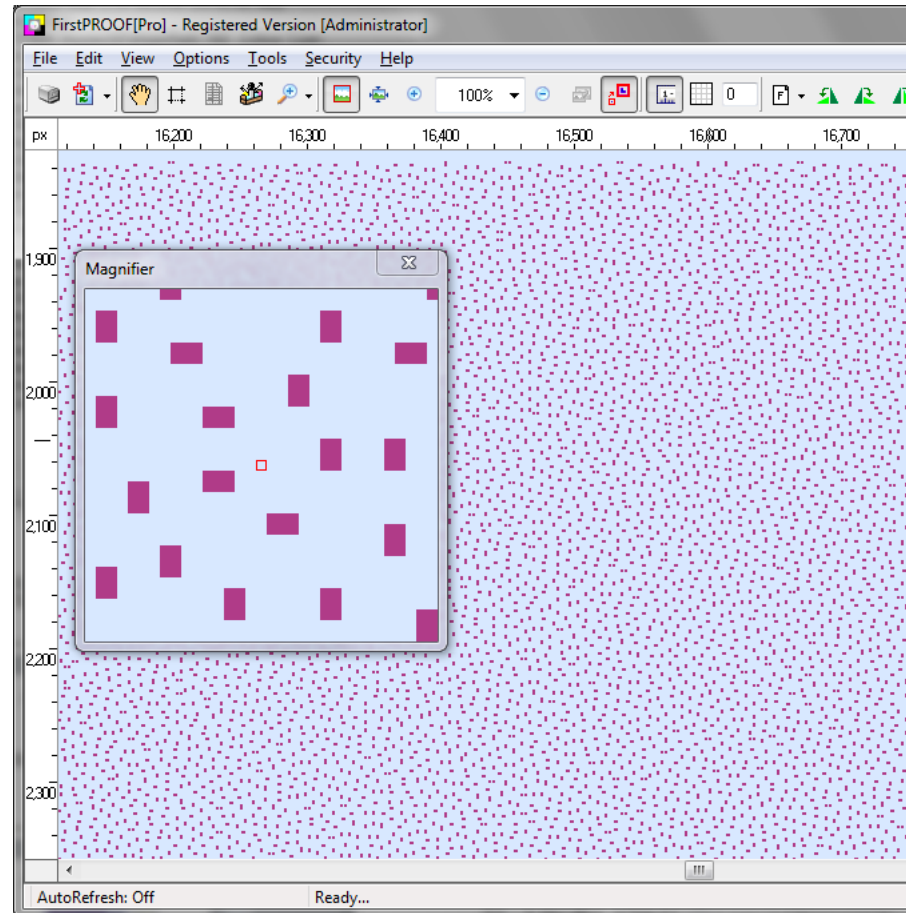
10% tint



# Dot Structure (DM)

Uses  
Small(er)  
Dots

Smaller  
Dots  
Than FM

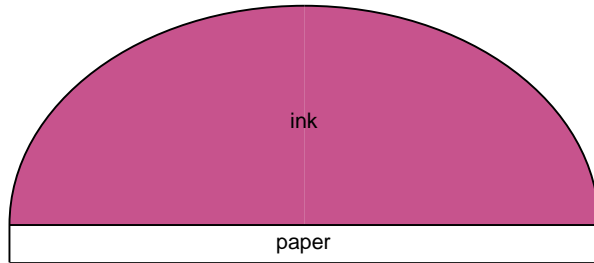
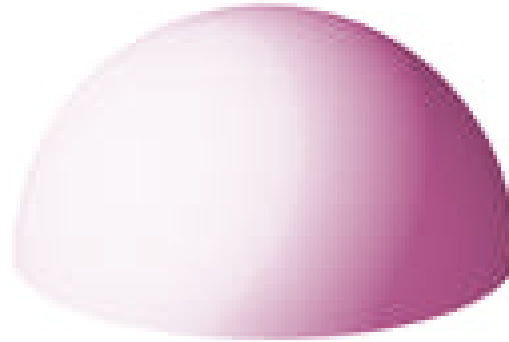


10% tint

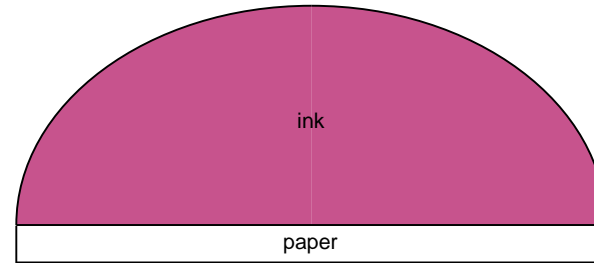


## Ink Volume (AM)

10% tint:



Front view



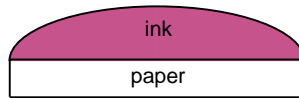
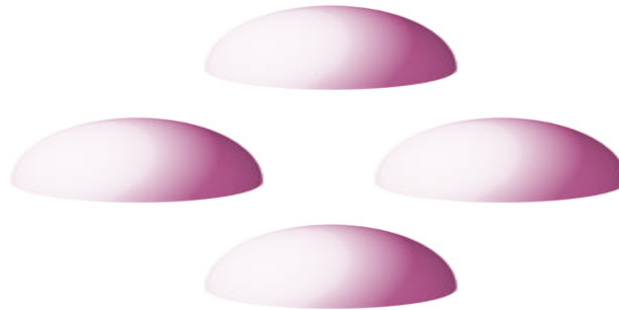
Side view

Large dots accumulate ink - large volumes of ink

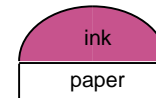
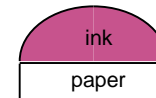
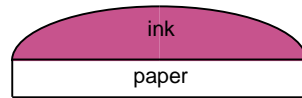


## Ink Volume (DM)

10% tint:



Front view

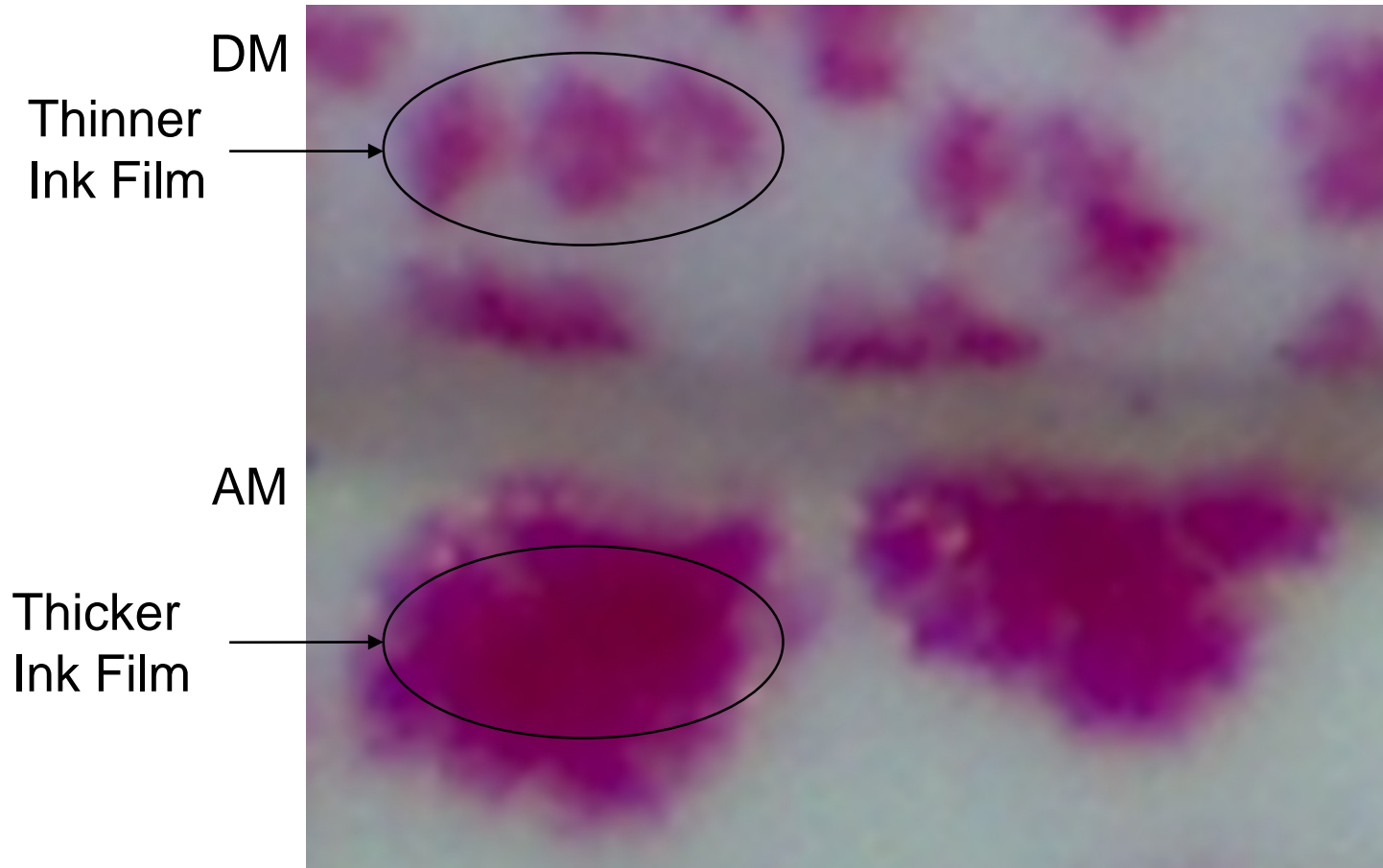


Side view

Smaller dots limit ink film thickness – small volumes of ink



## Ink Thickness (AM vs DM)





## Ink Saving (AM)

Magenta ink filters green wavelengths from white light

Filters 30% of light, aka 30% Magenta



Filters 30% of (remaining 70% of light), aka 51% Magenta



Requires >2.0 units of ink to produce 60% Magenta







## Ink Saving (DM)

Magenta ink filters green wavelengths from white light

Filters 30% of light, aka 30% Magenta



Filters 30% of light, twice, aka 60% Magenta



Requires 2.0 units of ink to produce 60% Magenta





## Cost Benefits (DM)

*“We have stored ink profiles [ink duct settings] for jobs that were previously printed with conventional [200 lpi<sup>1</sup>] halftone screens.*

*Since changing to Auraia, I have been able to **reduce those ink profiles by between 15-20%**, whilst still maintaining solid ink densities.*

*Needless to say, my M.D. was delighted to hear this, as it translates into real cost savings.”*

– Rod Clark, Press Minder  
Parkes Print Group



1. Given that a 175 lpi screen uses larger dots (than a 200 lpi screen), the ink savings of Auraia 6 vs 175 lpi AM would be even higher.



# Conclusion

- Auraia produces significant ink savings
- Auraia produces higher ink savings than FM screening
- Auraia produces ink savings with stable dots (easy to plate / print)
- Auraia saves money on ink when printing
- Auraia is the future for printers who want to increase profit

For further information, please contact [auraia@hamillroad.com](mailto:auraia@hamillroad.com).