

# DM Screening

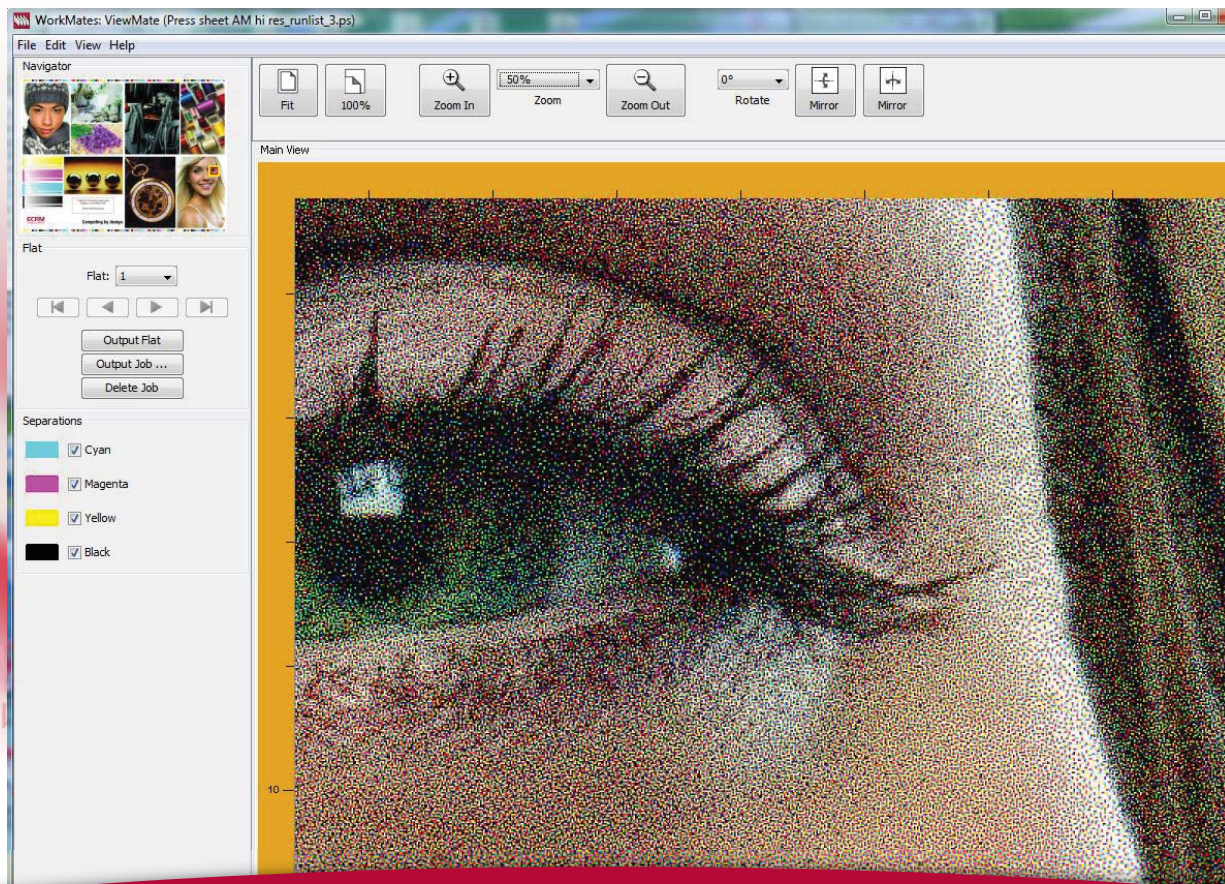
**Digitally Modulated Screening is beyond any hybrid solution.**

ECRM's DM screening digitally analyzes and modulates each and every pixel that it produces, rather than repeating a fixed pattern of dots (as in AM screening) or randomly marking a pixel (as in FM screening). The result is an unprecedented quality of screening, which is easy to plate and print using any ECRM CTP or polyester output device.

DM screening ensures that no dot is too small to plate or print, no 'non-dot' is too small to fill in and no dot or 'non-dot' is too large so as to be visible. Dots are created in a precisely controlled manner to ensure detail is placed exactly where it is needed, vignettes are smooth and flat tints are truly flat. DM screening intelligently modulates each pixel based on a thorough understanding of laser optics, plate technology, printing press behavior and ink flow to eliminate the effects of dot gain, resulting in the complete removal of patterning artifacts and graininess. This technique is especially suited to violet CtP devices.

## **For a quality of print that was previously unachievable.**

Based on years of research and experience, the patent-pending DM screening represents a fundamental change in the expectations a printer should have on achievable print quality. No longer are printers restricted by issues with moiré, misregistration, rosette drift, color shifts, banding, dot gain, dot loss, shadow loss, etc. With DM screening, printers are free to do what they do best—print beautiful pages.



## Highlights

- High quality printed results equivalent to over 350 lpi
- Moiré-free screening—incredibly smooth vignettes and flat tints
- Near linear output by default on press
- Highlight dots down to 1%
- Shadow dots up to 99%
- Ink savings of 10-15%
- Easy to plate and print on press

## Features and Benefits

### Outstanding Print Quality

At the heart of the DM screening engine is a breakthrough in screening technology. It eliminates the issues of dot gain and the problems that result from dot gain. Not only are patterning and graininess eliminated but also banding caused by calibrating for dot and ink gain. The carefully controlled dots produce printed results equivalent to a traditional 250 lpi or 350 lpi at 2,540 dpi, with incredible detail throughout an image, as well as highlight and shadow detail rarely seen before.

### Ease of Use

DM screening is available as a layered option for ECRM's RIPMate. RIPMate Version 8.3 (or higher) is required as it provides genuine 16-bit screening, offering an incredible 50,000+ levels of gray per color.

Installation is easy and performed by simply printing a PostScript file and rebooting the RIP. The screening is then activated. A Press Target file is printed and reviewed for best highlight, shadow and midtone performance. The screen is then selected from the RIP's Separation Manager menu just like any other screen.

### Plate Calibration

Plate calibration should be performed as usual. The FM mode on the plate reader should be used, if available.

### Press Calibration

Press calibration is also required as the ink savings inherent in the screening result from the small dots that are used. Due to the controlled manner in which the dots are modulated, a simple pullback Press Curve can be used to produce linear results.

### Supported Devices:

ECRM DPX Machines  
ECRM Mako 2X / 4X / 8X  
ECRM NEWSmatic/NEWS

ECRM Mako 2 / 4 / 8  
ECRM Mako 200/400/800  
ECRM Mako Imagesetters

### ECRM RIP Requirements

Operating Systems Supported;

- Windows 7, 2000, XP, Vista
- Mac OSX (10.4, 10.5, 10.6)
- ECRM RIPMate revision 8.3 (or Higher)



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