

ColorSet™ Screening Tool Kit

Build high-quality screens in less time using patented technology

The ColorSet Screening Tool Kit gives color device manufacturers the ability to quickly build various halftone screens to maximize image quality, including:

- binary
- multilevel
- AM/FM hybrid
- square and parallelogram-shaped
- asymmetric-resolution screens.

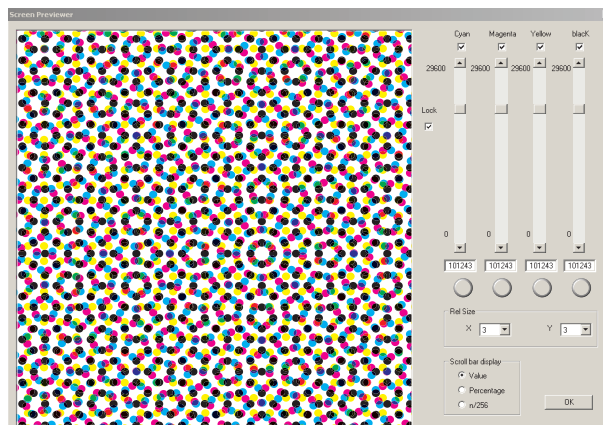
Monotype Imaging's screening tools can also be used with peace of mind – technologies are based on patented techniques initially developed by the Agfa-Gevaert Group for the graphic arts market. Monotype Imaging has further customized these technologies to meet the growing color quality demands of the office and personal printer markets.

Using Monotype Imaging's tools, compensated gradations can be developed to optimize contrast and color balance while eliminating contouring and banding. Color balance shifts due to registration error are lessened dramatically, color gamut is optimized, neutral balance is stabilized, jaggedness and subject moiré are diffused,

banding is minimized, tone jumps are abolished and rainbow effects are eliminated. Monotype Imaging's screening technology is designed to produce consistency in image quality within the page, from page-to-page, over time and across different devices.

A user-interface with development tools such as a screen viewer adds to the versatility of the tool kit. Device manufacturers are able to quickly develop screens, including AM/FM hybrid varieties, using powerful, patented technology. Monotype Imaging's HyScreen™ hybrid mode is a method for using a combination of AM (amplitude modulation) and FM (frequency modulation) techniques for highlight and shadow tonal regions. The HyScreen mode provides the ability to achieve smooth, precise transitions within images – without risk of introducing unwanted patterns that are visible to the eye – when transitioning between light and medium coverage.

Another key feature is a multilevel screen format designed for the demands of inkjet printing. The inkjet format is especially useful for maintaining the highest level of image quality when fast performance is required.



Feature	Benefit
<i>Patent protection</i>	Patent protection is assured. Alternative screening technologies may violate patents.
<i>High image quality</i>	Print quality is improved by the creation of moiré-free images, normalized device behavior, reduced banding caused by engine characteristics, expanded highlights and compressed shadows, and smooth transitions between light and dark areas.
<i>Reduced development time</i>	The tools simplify the process of generating screens, which are created in significantly less time than otherwise would be required.
<i>Compatibility with industry standards</i>	Tools and industry standard file formats are supported for compatibility and ease of integration.
<i>Versatility</i>	Flexibility is built in: screens for binary, multilevel, hybrid and asymmetrical resolutions, as well as square and parallelogram-shaped cells are supported.
<i>PCL®, PostScript® and GDI printer support</i>	OEMs are not limited to creating screens for specific page description languages.
Optimized one-step gradation compensation	OEMs can easily eliminate tone jumps by using advanced interpolation techniques. Total Delta E linearization has been optimized for use with Monotype Imaging's color tools.
AM/FM hybrid screens	Allows for stable reproduction in highlights by using FM dot – particularly useful for multilevel laser devices and MFPs.
Line screen spot function	Allows for the use of both FM dots for stable highlights and line screens for stable midtones.
FMSTOP	Provides smooth FM to AM transitions.
<i>Screen format enhancement</i>	Binary to multilevel screening utility – extremely useful for inkjet printers.
<i>Graphical user interface</i>	Easy, intuitive interface allows OEMs to develop high-quality screens quickly and simply.
<i>Multimedia training tool</i>	Digital video file provides clear, thorough training on Monotype Imaging screening tools.

Bold text represents patent-pending technology.

ColorSet Screening Tool Kit contents

- software to create and edit screens for binary, multilevel, AM/FM hybrid and asymmetrical resolutions
- one-step automatic compensation from measurements
- targets, test charts and images
- sample code
- sample screens and usable, working designs
- documentation

Additional solutions

Monotype Imaging is a major innovator of color and screening technologies. Products are based on patented technologies from the Agfa-Gevaert Group that have been customized by Monotype Imaging for the office and personal printer markets. Monotype Imaging's fonts and font technologies are used in millions of devices that operate today. For more information on the company and its products, please visit www.monotypeimaging.com.

Minimum requirements

- Adobe® Photoshop® software version 4.0 or higher
- Microsoft® Windows® operating system version 95 or higher
- Microsoft Word® and Excel® versions 95 or higher
- Gretag Spectrolino™ spectrophotometer or densitometer
- Minimum 1 GB free hard disk space



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