

## TYPES OF COLOR PROOFS

by Robert C. Brenner

Many color proofing options are available. Some work well for design evaluation, others for color evaluation. High-end proofs are used for press color prediction. How do you decide what to use? There are two types of color proofs: analog and digital.

### Analog

Analog proofs are produced using film and photographic techniques. Analog proofs include laminates, overlays, and paper proofs.

Laminate proofs are composed of laminated film sheets. They are used for accurate evaluation of color and show how a printed job will look. Laminates include AGFA Pressmatch, Fuji ColorArt, DuPont Chromalin, Fujifilm FujiProof, Imation Matchprint, and others. For example, the Chromalin laminate proof is produced when a film negative is exposed onto a UV-sensitive material that is laminated onto a white board. The exposed image is colored with toner and then the next CMYK film is exposed and colored until the full four-color proof representing the final printed image is complete. Laminate proofs are often called contract proofs as they are the standard reference for what is acceptable in color printing.

Overlay proofs are similar in that they are made from the actual film material that will be printed. An overlay proof is constructed from negative or positive CMYK film registered and overlaid on a paper substrate. For instance, the Color Key overlay proof is comprised of four sheets of acetate with each color dyed on its own plastic sheet and taped at one end to a white board. When the four sheets are stacked (overlaid) and registered, the four color image is visible over the white background of the board. Overlays, also called progressives, are not as color accurate as laminates, but they are less expensive and faster to make.

Paper proofs such as bluelines and Velox are also useful. Velox proofs are high quality black and white contrast prints made from film negatives. They are suitable for proofing single color designs and are used to make camera-ready artwork from film. Bluelines are made by exposing film onto Dylux material to produce blue images on a white background. These proofs are typically used to check the integrity and typography of a layout. They are seen as position-only proofs.

In general, laminated proofs are more expensive than overlays. Paper proofs are much cheaper than either, but less color accurate.

### Digital

Digital proofs are produced from computer files and printed on digital machines. They are divided primarily into two major categories—continuous tone and halftone proofs.

Continuous tone proofs do not have any noticeable gradations in the color. Although they are produced by equal-size dots of ink, the tones change smoothly and continuously from dark to light. Continuous tone (also called contone) proofs include DuPont Digital Waterproof, Iris Realist, Polaroid DryJet, Fujix Pictography, and Splash/Xerox copier/printer proofs.

Halftone proofs are produced using a grid of dots, where different levels and colors, are simulated by varying the dots' size and position. The resolution of halftone proofs is called its line frequency and is measured in lines per inch. Halftone proofs include Creo Proofsetter, Fujifilm FinalProof, Kodak Approval XP, Polaroid PolaProof, and Prestech PEARLhdp proofs. Fujifilm's FinalProof, 3M Digital Matchprint and others promise contract or near contract color accuracy.

There are some digital color proofs that are not advertised as contone or halftone. These include dye sublimation proofs—DuPont PreView, Imation 3M Rainbow, Kodak XLS 8650, Kodak DCP 9000, Screen TrueRite, and Tektronics 480 proofs. There are also thermal wax color proofs such as Seiko ColorPoint, and Tektronics 200I proofs. Solid ink proofs come from the Tektronics Phaser 380, and digital inkjet proofs come from the Barco Impress, Epson Stylus Pro 5000, and Iris 3047, 4012 and 5015 printers. There are many more.

Digital proofs encompass a wide assortment of outputs all the way from inexpensive inkjet and laser prints to the larger and more expensive workstation proofs. Still, digital proofs cost approximately half of what analog proofs cost.

### Choosing color proofs

Whether one is producing a magazine or a book, there is a proof that is just right. Ask your printer or prepress shop which proof they recommend for each step in the design and production process, and obtain the best type of color proof output for your work.

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