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SNAP and proofing: A how-to guide

BY DENNIS CHEESEMAN & PETER BREHM SPECIAL TO NEWS & TECH

FREDERICKSBURG, Va. — When The Free Lance-Star in Fredericksburg opens its new production facility next month, the event will herald a sizable set of firsts for the facility. **Comprised of volunteer** members from newspapers, commercial printers, and vendors working with these industry members, the Specifications for Newsprint Advertising Production (SNAP) committee has included in its discussions the critical role of proofing. The key elements:

- Newspapers, coldset commercial printers and coldset process clients should use final proofs that reflect the coldset process and not proofs that have whiter/brighter substrates or densities and tone values that are dramatically different than those achievable with a well tuned coldset process.
- Proofing technology that addresses this need exists, and a key educational effort needed is for clients and other coldset process stakeholders to understand that the purpose of the final proof is to predict the printed reproduction of the supplied film or file.

SNAP notes that “proofing is a term that refers to the process of checking a job during its production. Proofs are used in prepress and pressroom departments for functions such as content and color approval, process control, quality control and confirmation of corrections. Proofing methods and requirements differ depending on both the production stage and the customer’s expectations. A range of proofing solutions exist which vary in quality, complexity, and cost.”

SNAP also notes that the term

“proof” encompasses a range of functions that include:

- A “content proof” or “position proof” used for checking for image content, color breaks, and position though not for color matches.
- A “contract” or “final proof” used for final color guidance and position of all elements that is sometimes also called the color OK proof. This proof is intended to represent the final version of the job that is correct in terms of color, tone reproduction, substrate, layout and position of elements, and content of elements.

Finally, and as noted, SNAP specifies that the purpose of the final proof is to predict the printed reproduction of the supplied film or file.

Using the definitions above, SNAP minimum specifications are:

Content proofs

To provide complete instructions for the printer/newspaper, the content proof should:

- Be actual size and tiled if necessary. Tiled proofs should be taped together to represent the complete image. If this is not possible, the proof should indicate the percentage of reduction or enlargement.
- Include trim, fold, and register marks.
- Identify rules as For-Position-Only (FPO) or to image.
- Identify tinted page elements as either fifth color/match colors or as CMYK tint builds, including the percent of each process color required.
- Be a color proof if the image is to reproduce using color. A color proof provides helpful insight into color

breaks as well as potential trapping issues and indicates whether images are black-and-white or in color.

- Identify all silhouettes as “silo” since these effects typically will need to be recreated. If these graphic elements are ready to be output, identify them as “Live.”
- Be labeled with the customer name, event name or date, proof provider’s name and telephone number and any versioning information.
- Mark all FPO graphic files clearly, including photographs and special effects. The content proof, which accompanies the digital file, should also contain either high-resolution scan files of these photographs or the original photographs.

Final proofs

Final proofs for coldset printing should visually predict the final job as closely as possible. The final proof should accurately simulate the final printing results, including:

- Final layout
- Substrate characteristics/appearance (i.e., surface, color, brightness, whiteness)
- Printing ink color/gamut
- Tone reproduction
- Register

Final proofs should also be identified with:

- Origin and date of creation

Final proofs should also include:

- A color bar that includes a solid, 25 percent, 50 percent and 75 percent tint of each color, 2-color overprints, and a 3-color gray patch of 40 percent C/30 percent M/30 percent

Y. Such color control targets can be created and are available from GATF, RIT, and other organizations. On this, and to be compliant with the ISO 12647-7 proofing standard, an ISO-specified color validation bar must be included on the proof.

Proofing systems

Final proofs can be created using at least four methods: press proofing, analog proofing, digital proofing, and soft proofing. SNAP specifications for these four approaches are:

Press proofs

Though not in widespread use today, some coldset clients use press proofs.

- Press proofs should use inks printed to the density specifications listed in the section titled Press Production Guidelines.
- Press proofs should reproduce dot gain/TVI that is controlled and monitored for optimum consistency.
- Because the coldset industry uses a wide variety of uncoated groundwood papers whose color, brightness and opacity vary widely, it is not practical to designate a standard proofing stock. If press proofs are required, the proofer should determine the specifications of the production sheet and pull the proofs on either the same stock or one with similar characteristics.
- The recommended ink sequence for a press proof should follow the press-room production guidelines.
- Color bars should include a solid, 25 percent, 50 percent, and 75 percent tint of each color, 2-color overprints, and a 3-color gray patch of 40 percent C/30 percent M/30 percent Y. Such color control targets can be created and are available from GATF, RIT, and other organizations.

Off-press proofs

Again, though use of this analog technology has waned, it still exists. Many types of prepress color proofing systems overlay and single sheet methods.

- In order to simulate the final printed job and comply with SNAP guidelines, off-press proofs should be made according to the manufacturer's recommendations.
- Analog proofing systems require ex-

posure frames with appropriate light sources, so the proofing manufacturer's recommendations for bulbs and exposure times should be followed. Proper calibration and monitoring are also required. Despite similarities, all analog systems are unique and have their own characteristics and procedures. Any questions should be directed to the manufacturer.

Digital proofing

- Regardless of the digital proofing imaging technology — which includes inkjet, thermal, xerographic, and other — color management software is available on most digital proofers that enables the user to image proofs consistent with SNAP, including the substrate color and brightness, the available printed color gamut, and the densities and tone values.
- Digital proofs should be imaged from the same RIP file used to image the final film and/or plate materials.
- Before being relied upon as a good representation of how the file will reproduce on press, digital proofs should be tested both for accuracy and consistency.
- As with analog systems, manufacturer specifications for digital proofing systems should be carefully followed so that the system is calibrated and monitored to prevent system drift in terms of the imaging technology, the colorants, the substrate, and other process components.

Though using the same file to create a proof and image plates is always recommended, digital proofs created to serve as content proofs do not require the same rigor in terms of their creation, color management, testing, system calibration and management.

Soft proofing

- As with digital proofing imaging technology, color management software is available to enable the user to image soft proofs consistent with SNAP, including the digitally presented substrate color and brightness, the available printed color gamut, and the densities and tone values.
- Soft proofs should be imaged from the same RIP file used to image the final film and/or plate materials.

- Soft proofs should be tested both for accuracy and consistency, especially since the light emitted from the soft proof device is perceived differently by the human eye than the light reflected off a hard-copy digital proof.
- As with analog systems, manufacturer specifications for soft proofing systems should be carefully followed so that the system is calibrated and monitored to prevent system drift in terms of the screens and other process components.

Though using the same file to create a proof and image plates is always recommended, soft proofs created to serve as content proofs do not require the same rigor in terms of their creation, color management, testing, and system calibration and management.

Verifying final proof color prediction

Questions sometime arise about how users can document that their proof is visually predicting SNAP conditions. A side-by-side visual assessment of the user's printing and the proof is a good start, evaluating components such as:

- Are the substrates similar in terms of color and brightness?
- Are the densities similar?
- Do quartertone, midtone, and three quartertones have similar TVI/weights?
- Do first and last discernible halftones or stochastic spots image at around the same point on the tonal scale?
- Is the gloss similar?

When undertaking this visual assessment, keep in mind that newsprint color and brightness can vary dramatically, making an exact match improbable, and that on-press variation can also make the match less than perfect (suggestion: compare samples that achieved a SNAP Certificate to the proof to gain the assurance the printing is hitting SNAP tolerances.)

SNAP members have also emphasized that because all processes vary, in the reality of production, both the advertiser and newspaper/printer must understand and work within a proof-to-press sheet visual tolerance. This allows both stakeholders to know when an acceptable proof-to-press match condition is achieved. Stated otherwise, the final proof should successfully predict the on-

press printing and should not be required to yield a match of every color.

On this, defining the acceptable tolerance should be worked out between the advertiser and the newspaper/printer or, as is more commonly the case, defined internally drawing on a team comprised of quality assurance, prepress and a high level sales team leader. This latter approach calls for partnering with sales so that they understand the realities of proofing and are educated about proofing tolerances. When this collaboration and understanding exists, and if the client identifies a proof-to-print color issue, sales and manufacturing are better able to diagnose and explain to the client whether an issue really exists and, if so, what may have happened.

Other options to help reinforce advertiser understanding of proof-to-print correlation and communication:

1. Work with the client/advertiser to calibrate their on-site proofing system, applying the same profile the coldset printer/newspaper uses and, if this technology is employed, adding the white point in order to create a reasonable soft proof.
2. Create a proof at the printer/newspaper site and send it to the client by courier, especially when the working relationship starts. Keeping in mind that turnaround times may prevent this from always taking place, the need for this may diminish over time as confidence builds about the relationship between the proof and the printed piece.
3. Have a member of the sales or sales support team act on behalf of the client and make judgment calls on what the printing is an acceptable or unacceptable match to the proof. Initially, some calibration of client preferences and hot buttons will be needed, and as the relationship evolves and confidence builds this is can be an

effective approach.

For a more objective evaluation users and vendors can also submit a proof to SNAP to verify if it achieves a SNAP Certificate. Keeping in mind that the SNAP Certificate does not verify the consistency of the proofing or printing process, it does objectively document that the submitted proofs (or press sheets) are in conformance with SNAP, suggesting that the organization supplying the sheets is able to produce this type of work on a regular basis. Users or vendors interested in verifying whether their proofing solutions can achieve SNAP should go the snapquality.com Web site, download and complete the SNAP Certificate application form, and submit the form plus payment and a proof for measurement. Reportedly IDEAlliance is offering to serve as more formal proof certifying body for not only SWOP proofs but also GRACoL, and flexographic proofs. SNAP will explore with them whether they could provide this for SNAP proofs as well.

Finally, if proofing vendors and users are interested in seeing a comparison of coldset process proofing solutions, please let either Dennis Cheeseman or Peter Brehm know (contact information below) and the SNAP team will work on compiling a presentation for future industry gatherings. ▲

Industry members interested in participating in this discussion or joining SNAP (no registration fees or membership dues required) should contact either Peter Brehm at Vertis Communications Inc. (pbrehm@vertisinc.com) or Dennis Cheeseman (dennis.cheeseman@usink.com).