

COLOR MANAGEMENT

Making a Process of Color

Small-shop color management by LIDA MARSCHKE

Before we start, I know what you're thinking. Why color management?

I'd be the first to admit that perhaps the most profitable print shops are those that have not implemented color management. Their owners don't worry about the cost of color management equipment, their labor doesn't have to be as skilled and, perhaps most important, their customers could care less about color management. (Or, more likely, they don't know about it.) These are the printing firms that churn out the work, get paid and haven't a care in the world.

Until their customers become educated.

Small print shops historically have been less sophisticated about color management than their multimillion dollar counterparts. That's because small print shop customers have been less sophisticated, too. If a brochure looks nice coming off the press, it's sold. The reason why large printing company customers typically care more about their color is quite simple: They have multimillion-dollar logos and brands that always

must appear exactly the same. Or, at times, these customers are responsible for multimillion-page runs of fashion catalogs whose color had better be spot-on. At these volumes, the risk of printing a job incorrectly can be devastating.

But, don't think you're invincible. The problems that small print shops face are multifold. At some time, your customers are going to become educated — hopefully not by a competitor. At some time, something will not be as attractive or match quite as well as your customer had hoped. You even could face problems with that nice-looking brochure if the customer compares it to the one your company printed last year and declares, "It doesn't look the same."

A picky customer will make you jump through hoops to get a job printed correctly. That's why it's time to look into color management.

It's a process

When we consult a new printing company, the first thing we do is see what's going on in the shop. The best thing print shop owners can do is demonstrate that they use some sort of process control. Life is much easier if you can identify the steps you take from the time a job enters the shop until the time it leaves. It's hard to get a handle on color if everything is done on a whim. Where do you start if there is no measurement device, the proofer hasn't been calibrated in months or jobs are color managed "by eye"? Whatever you see on the floor today could be different by tomorrow.

There are variables in every process. Color management experts try to recognize and identify those you can control and those you can't control easily or inexpensively.

Start the presses

Probably the most important thing you can do is to get your press under control. Once you do that, everything else can fall into place.

The first thing print shops should do is fingerprint their presses' functions.



Color bar measurement is critical to press control.

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For example, how much dot gain is a press creating? Could incorrect packing be generating ink slur? What kind of ink mixtures are used, and are they consistent from day to day?

The most important piece of advice we always give print shop owners is to buy a densitometer and start using color bars on every press sheet. By doing so, you are committing to a process that ensures your press matches the same standard every day and that the density values from every press unit are the same. You'd be surprised how many print shops don't do this.

Once you calibrate your press, you should be able to quite easily replicate tomorrow or next year the job you print today. This does not ensure that your press will match your competitor's (or vice versa). There are GRACoL press specifications (visit www.gracol.com) that can help you calibrate your press to industry standards. The IDEAlliance provides a test file that allows you to compare your printed sheet of the file to a standard sheet they provide. This is quite complicated and something we advise you to ignore until you have the rest of your shop in order.

Once a press is stable, the next thing to do is to calibrate your imagesetter or platesetter. This should be done often. A shift in the highlight or shadow dot will change the colors in any job. Making sure imagesetters are linearized ensures that dots always are the same from job to job and from day to day. Most imagesetter companies provide software that can help you produce a test strip and measure dots.

Proof it

You shouldn't install a proofer until your press is fingerprinted. Why? Because you're not trying to produce a consistently nice-looking proof, you're trying to show customers what the job will look like on press. But, you can't match a proof to a press until the press is predictable. Color gamut or other reasons can make an approved proof impossible to re-create on press. In circumstances when we have been asked to install a proofing device without a consistent press sheet, we calibrate to a standard, typically SWOP, or Specifications for Web Offset Publications. If the press is tweaked, then a SWOP-standard job should be printable. If it's impossible to match the proof, e.g., if it's always too light, you always can darken the proof. It's still an unscientific process when the press operator is "eyeballing" jobs, but at least the proof is a target to get the press on line.

It used to be that contract-quality proofs could be produced only by expensive, film-based or high-end digital printers. During the past three or four years, two significant things have happened. Digital inkjet printers have become consistent enough to reproduce work very nicely. At the same time, color management software can help you calibrate the printer to the press and take into consideration dot gain and different substrates, and even replicate the RIP's



Press side scanning helps press operators quickly achieve a level of consistency across the sheet that is otherwise time consuming and costly.

dots. These solutions are relatively inexpensive and, once a consultant has installed it, are pretty simple to maintain.

Going further upstream, some printing companies calibrate their monitors to reflect what will be seen on press. To do this, you'll need to measure the monitor and use calibration software. It's a nice step to take, but one that's not necessary until you have everything else in order. You will need it to help correct a photo in an application such as Photoshop. Calibrated monitors are not necessary in layout applications such as QuarkXPress or Adobe InDesign.

Selling the process

Your employees likely are nine-to-five workers who, although they have a vested interest in your shop, are not going to worry about accurate color.

The process of adding color management can be a new and unappealing thing to your press operator who might not have exceptional skills. It can be an uphill battle with two predictable outcomes. If you persist, you could lose the press operator. But, if you demonstrate how helpful color management can be in the long run, you can drive the message home.

Just remember that color management is a long-term investment that requires daily and weekly calibration. If you keep up with it, the rewards are happier customers and a reputation for accurate, consistent color. Those are good reasons to start managing your color. ●

Lida Marschke is the founder of the Color Management Group and ColorManagement.com in San Jose, CA. Contact her at lida@colormangement.com.