

SPTF's Graphics Four-Color Process Workshop: Controlling the Variables

SPTF is continuously updating its four-color workshop to include the most up to date information needed to successfully print high quality four-color process images. This winning combination of lecture, hands on exercises, practical advice and printing demonstration provides the tools and knowledge needed to produce high quality four-color process printing. The workshop offers a chance to learn from those who have traveled the four-color road and succeeded, and will give you the tools you need to stand out from the crowd.

Day One



The program begins with an overview of color theory and densitometry with Dawn Hohl, SPTF Technical Training Manager. The effect of viewing conditions are explored and demonstrated. As samples are viewed under different light sources, attendees can see how drastically color changes just from different lights.



Theory moves to practice quickly, as the first of many hands-on densitometry exercises is introduced before lunch. Attendees are walked through the operation of the provided

X-Rite densitometers, and begin to learn how to measure and interpret print results with them.

The practical densitometry discussion continues after lunch as Dawn leads the class step by step through how to use densitometers in a job from start to finish. By the end of the session, the class has been taught two different techniques to measure and monitor dot gain.



During the second part of day one we shift gears a bit, and focus on the screen. SGIA's Technical Associate Denise Breard leads the way with an overview of all the screen variables that must be understood and controlled. Participants are encouraged to bring up their screen making problems so they can be addressed.



We top off the day with a demonstration by Dawn Hohl showing screen measurement tools and test screen methods that continue to reinforce critical attributes a four-color screen requires. The SPTF Process Model is used to show that the screen is the key ingredient to a quality print.

Day Two



On day two, our featured speaker from Reyhan PGF Inc. gives an overview of the various aspects of computer pre-press. Topics covered include dot type and line count, film angles, scanning resolution, proofing issues, understanding and measuring dot gain, GCR/UCR, working with a color separator and fingerprinting your press.



Samples show key points, and students are invited to ask questions on specific areas of concern for their job function. The program is tailored to the needs of the group as much as possible.



After lunch, we break out the densitometers, and do some more hands-on exercises showing how measurements can tell you what is wrong with a print.

Toward the end of the day, we break out still more samples showing typical problems, and challenge the participants to use their new knowledge to recognize them.



One of the most important exercises comes next - the troubleshooting contest, complete with prizes. While everyone has had a good introduction to densitometry, this technical topic requires more practice! The group is broken into teams to experience firsthand how to apply their new knowledge to real life.



Day Three

On the third day Bron Wolff (Serigraph Inc.) brings his knowledge and practical experience to the group. Day three is often seen as the highlight of the program, where the real world application of all the concepts taught takes shape.

All the possible variables are covered in a total approach to controlling the process. Important nuances of the artwork, film, screen, stencil, exposure, ink, press, substrate, curing and shop conditions are all

explained from the perspective of an experienced production manager. Print results are closely examined to prove key points, and many questions are answered. Sample prints that line the wall of the classroom are focused on throughout the day.



Bron's favorite part of the day, he jokes, is the troubleshooting exercises. He uses role-playing to get across the full impact of troubleshooting a print. All the participants' new knowledge is put to the test in figuring out what is wrong and how to fix it. Some of the newest stencil and ink technology is also discussed, with phenomenal prints showing what these new technologies can produce.



Day Four

All the theory and information from the previous three days comes together during this final day, when we print a complete four-color process image in the SPTF lab. Instructors guide the class through the control points and measurement techniques as each color goes down. Densitometers, in the now capable hands of our trained attendees, are

used to measure the print each step of the way. Bron also shares some unique measurement techniques that can provide valuable information during printing.



To illustrate the theory, cause and effect relationships are demonstrated on press at appropriate points. Questions and answers are the theme for the day and extensive discussion is the norm. In between colors, more troubleshooting problems are presented, developing attendee's real world skills to take back home to his or her plants.



At the conclusion of the workshop the key points have come together from seeing and experiencing the concepts taught throughout the week. Participants leave with action items they will implement back at their shop, along with a clear picture of what it will take to successfully handle four-color process jobs.

Attendees take with them a SPTF lab coat and T-shirt, samples from Friday's print run, an SPTF Process Model, a direct emulsion test print, and a thick reference notebook containing one of the best collections of articles on four-color process the industry has to offer. ■