FAQ: World of Fiery Webinar – Achieving Great Output Quality with Your Paper

Should paper go through the press long grain or short?

For an offset press doing multicolor work, a long grain sheet, with the grain in the longer dimension of the sheet, is preferred. This is because the introduction of moisture in the offset press will cause the sheet to grow in the cross-grain direction, as we talked about in the session. If that cross-grain direction is shorter, then the dimensional change of the sheet will be less. For digital, the main thing to be aware of is that if your paper is 120gsm or higher you always want the grain parallel to the lead edge of the sheet. So feed long-grain paper long edge first and short-grain paper (paper with the grain in the short dimension of the sheet) short edge first.

Also consider finishing. If you will be binding books, especially perfect binding, then the grain of the finished product should be parallel to the binding. If you will be folding sheets, the best results are achieved when the fold is parallel the grain direction as cross-grain folds may crack some coated sheets at the fold. If you need to fold cross-grain consider perf'ing the sheets on the fold before folding.

Why doesn't toner set in the perfs of the paper?

When toner falls on an un-smooth surface like an uncoated stock or the perfs on pre-perforated forms, some of it falls off before it makes it to the fuser.

In the paper settings, if I'm running a clay-coated paper that doesn't really come across as a coated paper, what setting do I use?

I would still set coated, just set the right weight. I'm guessing it doesn't come across as coated because it is a light, thin sheet.

What is the difference between calibration and profiling?

Calibration linearizes the primary colors – C,M,Y, and K. By linearizing, we get the best toner reproduction (since no tonal regions are plugged up) and we get the system to a state where we can calibrate it to a consistent point in the future.

Profiling is making a lookup table that represents all the colors that can be printed – both primaries and overprints of two or more colors. We need the profile to do color management and convert the colors in a page from the particular color space we want them to look like (such as SWOP or ISO) and the color space of our press that our profile represents. Since we make the profile after calibrating, we can recalibrate the press on a regular basis (probably every day) and the profile we made will continue to work.

### Do any available light booth lamps actually conform to the ISO 13655 specification?

ISO 13655 defines how to measure color using the M1 condition. Modern light booths do comply with ISO 3664:2009 provided they have compliant lamps. These lamps have the same UV percentage as the M1 condition. Check the manufacturer's website for your light booth to see how the compliant lamps are labeled.

Should I calibrate before a big job?

It is recommended that you calibrate prior to a large job in order to achieve the best results.

You mentioned that Hot Folders can have preflight included in the process. Can you also include an impose setting in the hot folder as well?

Yes, you can first set up and save an Impose template using Fiery® Impose. The template then can be used in a Fiery Hot Folder, a Server Preset, and in Job Properties.
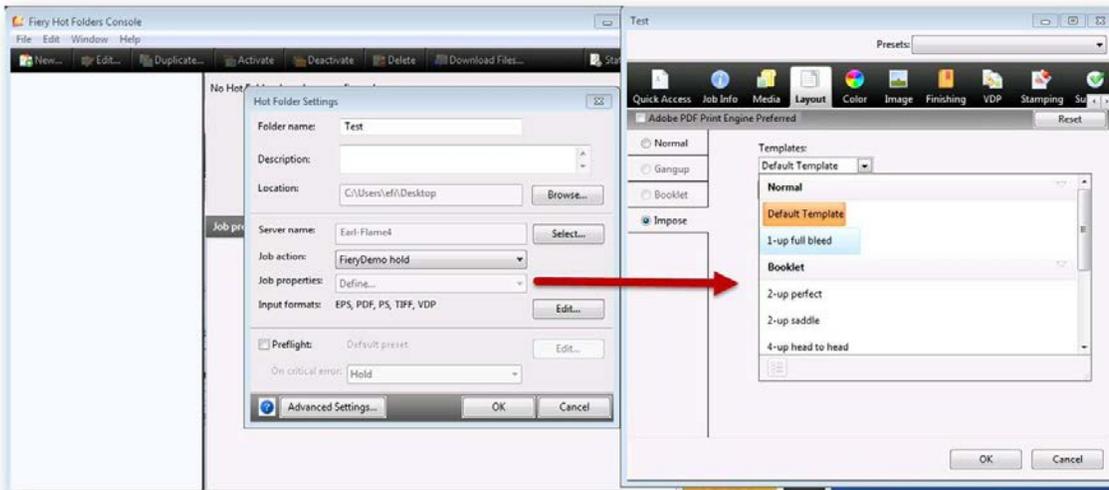
How much does paper shrink/stretch really affect the stock?

It depends on how critical your operation is. If you are running an 8-up sheet in a conventional press and want very precise fit you can see that the trailing edge of the sheet sometimes does not fit as well as the leading edge. The smaller the paper, the less of a concern this is.

Paper Catalog: What is the realistic/minimum amount of information that I need to enter for a paper catalog entry?

All you really need are the size, weight, and coating of the paper. If you are making profiles, assign those in the paper catalog. All the other JDF data fields are "informative" meaning they do not affect the printing process.

Is there a way to automate the addition of two pages from a file, a cover for example, to the beginning of a print job before it is processed? Currently, I do this with Preview, Actions, Add Pages, etc.

Yes, you can do this in Fiery JobFlow 2.1 where you can place both cover and inside page in a folder, and submit the folder. Jobs will be merged after which you can impose and set cover options.

Paper Catalog: What is the best industry standard way to name the papers in the catalog?

I know of no industry standard for this. So consider what the operators call each sheet. Also remember, names sometimes get cut off in menus if they are too long, so don't put any critical information at the end of the name or just keep names short. I like GSM since it is universal. I'd use names like brand_model_coating_gsm, so for example, "Sterling_UD_coated_210gsm". I cut "ultra digital" to UD to keep a short name for the sake of menus.

How should we setup for metalize paper?

If you mean a metallic substrate, I would set it as coated and enter its GSM.

We currently run 3 Canon copiers, 1-C9075 and 2-C7065. All have the A-1 Fiery RIPs. They are serviced by three different vendors. How can we get all three to play nicely together? When we print the same file to all three devices the results are different.

The C7065's should be easily matched by using Fiery Color Profiler Suite match function and using the same paper. Once you get that working, the next step is to make those two match the 9075. This will need a device link profile. You can make this in Color Profiler Suite too. View the how-to guide "Simulate the Output of another Printer for Proofing" to learn how to create a common color space profile using Device Link.

How is the Hot Folder different than presets?

Presets need to be picked for each job in the print driver or by opening the job in Fiery Command WorkStation® to see the Job Properties. With a Hot Folders, you take a PDF that you want to print and drop it into the folder. It prints automatically and you never have to open the PDF in any application to print it.

Historically, when I have used mixed-media, it greatly affects the output speed as the device heats up or down. Is this getting better or is it sometimes better to run one stock separately and insert it in the job?

For best production speed, it is better to insert it. Fiery DFE has no control over fuser heat up / cool down times on your press but the process is always going to take some time when you'd likely be more profitable if you were printing sellable sheets.

I just purchased a Ricoh copier/printer used and it came with a Fiery server. Where can I get LACs for Fiery WorkStation such as imposition?

You can buy licenses for the options packages from the eStore at https://estore.efi.com/shop/ or contact your Fiery dealer.

I have attempted to calibrate my printer before I run the job but sometimes I notice no difference in the quality of the print. Am I missing a step?

Sometimes calibration has little effect if the print system is in good condition and if the humidity and temperature in the press area are stable. Please post additional details on the EFI™ forums at http://fieryforums.efi.com/forumdisplay.php/127-Fiery-Color-amp-Imaging-Topics in order to get a more specific answer to your situation.

I have a KM C6501. It has a paper setting for Litho papers. I know these are cheaper to use than digital stock. Should I consider using them? Coated GL, coated GO, coated ML and coated MO?

You have to try it to find out. You can run some color critical work after calibrating on each sheet. It is not a great comparison if you use the same Fiery factory calibration sheet when you test each paper, the calibration set will limit the maximum densities that were measured when we made the calibration set. That means, if the offset or laser paper you are using can achieve higher dMax's you won't get the benefit. If you have Color Profiler Suite, a much better way to test this is to make a calibration and profile for each kind of paper then compare the profile gamuts (how big they are) in the Profiler Inspector. Test some color pages on each paper making sure you pick the profile and calibration you made for it.

How does the color gamut behave in calendared sheet compared to coated and uncoated?

Super-calendared is close to uncoated but may have slightly more gamut since the surface is smoother and in theory the colorants will adhere better. It really depends on the actual sheet. See the answer above about running a litho sheet in place of a laser sheet for cost savings. You could apply the same test I describe there to see how super-calendared compares to your uncoated sheet.

How can I view this Webinar again? Will we be able to download the presentation?

You can find the recording of the session, a copy of the presentation and all the other resources we talked about at http://webinar.efi.com/WorldofFiery2015/July15.

Where does the ICC profile reside on my client's workflow?

It depends what application your client is using to produce the files they send you. If they use Adobe CS and send you PDFs then the color settings are found under color settings in the Edit menu. If they are making PDFs for you, there are also some settings when they save or export the PDF to define whether or not to convert colors and/or embed profiles. For these workflows, it is often best to give them a standard way to make PDFs, probably using the preset for PDF/X-4. If the jobs are coming from Microsoft applications, there really are no color settings. Assume office apps are sending you sRGB and set your RGB Source profile to that on the Fiery DFE.

How do I calibrate colors? And how often should I do this?

The first question is if you can calibrate. Do you have an ES-2000 spectrophotometer to calibrate with? If you don't, you can try using what is called Colorcal in the Fiery calibrator and it will use the scanner on your print engine to measure the calibration patches. This is generally not as accurate. There is no substitute for calibrating with a measuring instrument. If you are, you should calibrate on the papers you use (at least one calibration for coated paper and one for plain paper) on a daily basis if your work is color critical. You might extend this out to calibrating every week, but your day-to-day consistency may not be as good. If you don't use one paper every day, be sure to calibrate it before you use it.

Are you planning on offering free Fiery University courses like last year?

We have a three-course bundle available. To take advantage, you must register by October 31. Please download the flyer for complete details.

How important is a good quality monitor in printing?

Not important at all for printing. It is important if you want to "soft proof" which means you want the screen look like the print so you can proof without using a click charge. If you want to do this, there are easy options like using Fiery Color Profiler Suite to make a monitor profile for a mid-range display. For it to work properly, you also need a light booth that sits next to that display since the prints will only match the screen in D50 light. Remember, you will need software that works with soft proofing like the Adobe CS for design documents or the ImageViewer application on the Fiery DFE (part of the Graphics Arts Package, Premium Edition) that lets you open raster files after they have been processed without printing them.

For precise soft proofing, you need to invest a considerable amount to have a display that really has the ability to render neutrals, render tonality, and be hardware calibrated by the profiling software that comes with it. These solutions cost upwards of $5,000 to get the right display and light booth.

Do you have suggestions for color shifting across a sheet on a job?

It depends a lot on the printer you are using. If you print a few sheets then rotate the job 180° can you see that the lack of uniformity is mechanical in the press – the uniformity problem will be reversed on the rotated prints but will "mirror" the deformity on the first set of prints. If that's the problem, you probably need a service call on your print engine (save the prints to show the technician).

If the problem is more random, then you may be seeing banding or mottling in the prints, especially if you are printing big tint blocks, which are hard to keep even on a conventional press. For this kind of problem, I would try different halftone screens on the Fiery DFE. Take a page that gives the problem and print it with every combination of resolution and halftone dot pattern you have, and then pick the best one. If you need more help, please post on the Fiery Forum for color and imaging at http://fieryforums.efi.com/forumdisplay.php/140-Fiery-Color-Profiler-Suite.

What profile gives the best results printing on a C75 Color Press with Fiery? Workflow: Photoshop > PDF > Fiery print

It depends if your source data is sRGB or Adobe. You said it's a Photoshop workflow so you get an advantage - open up some images and see what profile is assigned to them by going to the Photoshop Edit menu -> Assign profile. In that same dialog, try assigning the other profile. Which looks better? Set your Fiery DFE for that. One additional thing — if you are printing from Photoshop to the Fiery DFE, you need to actually assign the preferred profile to each image. Then when you print, set "Printer Manages Colors". If you are saving PDFs, make sure the right profile is assigned and embed the profile when saving. If you do this last workflow, you could also go to Advance color settings on the Fiery DFE and choose "Use Embedded Profiles if present" for RGB.

Would having a preset for each paper be the best way to help solve color matching issues?

It goes a long way to getting the print settings the same every time. If there is still a matching problem, then you need to look at your calibration procedures or start making your own calibration sets and profiles if you are not already doing that. Fiery Color Profiler Suite makes this really easy with **Express Profiler**.

We have an iGen 4 with the matte dry ink system and my biggest problem is with lightweight gloss coated stock looking too flat. Are there any Fiery settings that will enhance the appearance either through saturation enhancements or some other setting?

Have you made a custom calibration set and profile? Can you tell if CMYK or RGB sources are looking flat, or is it all pages? Have you experimented with another halftone screen? Dot 200 is usually a good choice. To answer your question further, we need more

information. Please post on the Fiery Forums at http://fieryforums.efi.com/forumdisplay.php/140-Fiery-Color-Profiler-Suite.

Many of the issues with color management are device dependent but it seems in my 20 years of experience that all toner devices are more susceptible to color shift from a specific light source than are pieces produced via offset printing. This presents the problem of trying to predict where a piece will ultimately be viewed and then attempting to profile for that specific environment. Do you have any suggestions for making that shift less noticeable across all viewing environments (Kelvins)?

It is true that digital devices (inkjets too in some cases) are more sensitive to viewing conditions; a problem you probably know is called "metamerism". The only way to solve this is to use more black and less color toners. It won't help saturated colors in all cases, but it works wonders for neutrals where you see the shift. "GCR" (gray component replacement) is a widely misused term in the digital printing space. I won't take time here to talk about what it really is and what sometimes gets labeled "GCR" when what is being described has historically been called "black generation". The best way to use high GCR to solve metamerism problems is to make a calibration set and a profile for your press and paper with Fiery Color Profiler Suite. Use the Express profiling path to make it very easy. Watch the video "High GCR profiles with Color Profiler Suite" and read the how-to guide "Create Output Profiles with Express Profiler" to learn more. When you set the preferences, make sure you set "Max GCR". Let us know how it worked on the Fiery Forums at http://fieryforums.efi.com/forumdisplay.php/140-Fiery-Color-Profiler-Suite.

In setting up printing a brochure, where can I set up the cover sheet settings?

Use mixed media. Define all the papers you will use in the brochure using paper catalog. Then in Job Properties from Fiery Command WorkStation, assign the paper catalog entries to page ranges on the Media tab. There is a define cover button that you can use to define the size of the cover and the paper catalog entry to use for that sheet.