VALIDATION – THE FOUNDATION OF WIDE-FORMAT WORKFLOW

Production workflow validation is essential for effectively managing clients' expectations. Graeme Richardson-Locke offers a guide to choosing the best solution for a wide-format device

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High on the list of what clients want from wide-format print service providers (PSPs) in today's market are consistency and sustainability. They expect colour print that is consistent and repeatable – print-to-print, job-to-job, substrate-to-substrate and, in the case of distributed print, site-to-site – and produced using a sustainable workflow that generates minimal waste and consumes minimal resources.

Vital to both consistency and sustainability is better control of the process. To achieve this, automating repetitive tasks is critical, to reduce manual interventions and the potential for errors, and manage colour throughout the process. There are two aspects to automation – hardware and software – and while manufacturers and PSPs have done a good job of automating the former, it's a different story with software automation. The solutions exist, but take-up among PSPs is patchy, so the job is only half done.

WORKFLOW VALIDATION

Completing it requires workflow validation, and if you want to be taken seriously in today's market you have to do it. To understand what it is, and why you need it, consider the current situation. The first thing to note is that, compared to the commercial print sector, wide format is far less advanced in workflow validation. A commercial printer making a significant investment on a 10-colour press will expect integrated colour management and process control.

Not so in wide format, especially among SME businesses, but it's just as essential given current practice in a crucial area such as file submission, the first step in the workflow. If you're fortunate, the design agency will send you artwork with an appropriate colour profile such as Fogra 39 or 51, but it's more likely you'll receive a high-quality print PDF lacking any colour management data, leaving it up to you to decide if the artwork is fit for production. Once the file enters the workflow, without device profiles for each media combination the risk of variations from proof to final product is considerable, with the resulting time-consuming and costly job rejections and reworks, and possible loss of business.

Clients expect colour print that is consistent and repeatable

"Workflow validation gives you confidence that you can 'print the expected'"

How does workflow validation help the situation? Essentially, it gives you the confidence that you can 'print the expected' because you know your workflow can process the files you present it with and produce predictable results consistently. It's the foundation of everything: with confidence in the workflow, for example, you can educate clients about file preparation and submission, streamlining pre-flighting.

MANAGING EXPECTATIONS

Production workflow validation is essential to effectively managing clients' expectations, which is a major part of successfully executing a project. Your clients must understand the capabilities of the workflow you adopt and how it affects the printed product. For example, if a client's job needs to exploit the widest possible colour gamut on your printer you might specify they submit files in PDF/X-4 with Adobe RGB (1998) profiles and soft proof to the device profile. But if colour has to match across a range of products and media it's better to soft proof to a simulation profile such as Fogra 39 or 51 and accept the compromise on gamut (remember that the smallest-gamut device governs the colour management).

In a nutshell, if you validate your workflow and manage it consistently then you 'print the expected' and can justify how you're doing that. The science tells you the best result you can get, and there are no nasty surprises for you or the client, either at file submission or final production.

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As an example of managing expectations, take a workflow I once had to calibrate for direct-to-garment T-shirt printing, and which is best described as 'unruly'. The business model was business-to-consumer (B2C), so customers submitted design files in all sorts of formats, including Microsoft Word and PowerPoint, and incorporating colours that

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could barely be perceived on a monitor let alone printed. Our solution was to profile the output device and set up a workflow to soft proof PDFs back to the client to show them what they could expect. They might have been disappointed that the proofs diverged from the original designs, but at that stage no expensive ink had reached valuable garments.

If printing a fine art print, you will generally want to use the full gamut of the device profile

GETTING STARTED

Assuming readers are now persuaded of the advantages of a validated workflow, the question is, 'How to go about implementing one?' As I noted earlier, the solutions exist, but in many forms, so choosing the right solution can be daunting. The manufacturer of your wide-format device will certainly have recommendations, so make them your first port of call, but as you discuss and evaluate the options there are some basic rules to follow and questions to ask.

First, make sure that the RIP or digital front end (DFE) you're considering includes the colour management module. It's not uncommon for base versions of the software to exclude this, yet the module is crucial to validating the workflow from a colour perspective. Better to buy a package with the module integrated than to have to go to a third-party vendor for device profiling. Then again, be cautious in buying the 'bundled' solutions vendors often offer. At first sight, their 'fully-featured nature is appealing, but if the bundle doesn't give you the breadth and depth of capabilities that you need, it may fall short of meeting your needs.

As a minimum RIP and workflow configuration, I strongly recommend investing in one with the ability to create, measure and report on device profiles. Most software can be customised, enabling you to select the targets that you want to validate. For example, one popular solution automatically pulls out a colour patch target set from the image being printed. Why is this valuable? Well, imagine you're printing a fine art print: you will generally want to use the full gamut of the device profile. If you measure against a Fogra media wedge patch set you can correctly say that you're validating against Fogra to ISO 12647, but if most of the important colours are outside that relatively restricted colour gamut you need a customised set that you can measure. It's important, too, to 'test-drive' solutions on the types of work you produce, because no solutions are equal in terms of output. For example, not all can render gradations without stepping.

A colour management module is crucial to validating the workflow from a colour perspective

"Most software can be customised, enabling you to select the targets that you want to validate"

These are just the 'starter for 10' questions, but if you listen to the answers you will be well on the way to establishing a validated workflow and reaping all the efficiencies, cost-savings and satisfied clients that come with it. ■

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