

Fogra – Validation Print

Validation Print – The Way Towards a New Standard in Digital Print?



Mr Andreas Kraushaar is in charge of the Prepress Technology Department at the renowned Fogra Graphic Technology Research Association based in Munich, Germany.

His areas of responsibility are as follows: Research and Development, providing expert opinions, certifications and delivering seminars.

He is the Chairman (Obmann) of NDR 2 and 3 (the German mirror committee of ISO TC139 WG 2 (Prepress) and WG3 (Process Control and Related Metrology)) and he is Convener (Chairman) of WG3 within ISO TC130.

May 2008 saw the first Validation Printing System Certification of the first digital printing system with external Fiery Server and a new era was launched almost unnoticed. The Validation Printing System Certification is the answer to long-lasting requirements from the world of print for a digital print quality standard. Until now the quality of color print has too often been in the eye of the beholder – without containing any objective and pre-defined criteria. Thus Fogra, the independent and globally-recognized organization for implementing standards in the Graphics Industry, actively supported by EFI, set themselves a goal, based on an ISO Draft, to design a measurable test for digital printing. This test has been adopted within the scope of FograCert as “Validation Printing System”.

The main objective of this standard is to provide a defined and measurable level of quality for digital printing. The criteria for the print quality are color accuracy, fading (drift), rub resistance, homogeneity and last but not least PDF/X compliance. Another important criterion is the consistency (repeatability) of the print over a range of time intervals.

There are two different versions of this new certification: the Validation Printing System for printer manufacturers aiming to certify their systems consisting of RIP, different paper stocks and media and the printing environment to be simulated, and the Validation Print Creation which targets digital printers and digital print service providers who wish to get certified by Fogra for the quality of their own print products.

This standard has a lot of benefits for the industry and its customers. Customers can now be certain that, if they want to produce materials, these will be produced in a defined quality. Customers will get editions in a secured quality standard. Furthermore, documents can be produced as variable data prints which will also match the pre-defined standard.

The print service provider can use this new standard as a guarantee for excellent quality in order to conquer new customer segments. In addition, a validation print is created quickly and at low cost and the integrated media wedge allows easy checking, so that, at last, there is practical and transparent process control within digital printing.

To really understand the significance and drive behind this exciting new development we interviewed Mr Andreas Kraushaar who is responsible for certification at Fogra.

EFI: *Over the last couple of months there has been a lot of talk about “Validation Prints”. Could you please briefly explain what people are referring to?*

Fogra: The definition of Validation Prints is similar to contract proof quality; however, its criteria are less stringent. (For Validation Prints it is irrelevant with which technology they have been produced.) The idea of Validation Prints comes from the fact that there were definitions and standards for contract proofs “Proofing” but no comparable definition for digital print. A lot of printing systems manufacturers have expressed their interest in creating a standard that defines output quality for the mainly toner-based output systems. Thus Validation Print was created as a color definition in the design process; this definition is based on a less stringent set of quality requirements for offset but it does not contain general proof quality. The Validation Print is a color definition, targeted at companies such as data centres, small graphic and design studios, for prepress companies and graphics agencies, which would like to fall back on pre-defined quality within their creation process. Validation Prints are inexpensive to produce and they provide a reference consisting of printer, RIP, colorant, substrate and printing condition to be simulated.

EFI: *You named the word “Proofing.” There are a lot of standards in this area. These have been missing in the digital print environment. What is the significance of standards for printing?*

Fogra: A standard is crucial for the production and quality security in global working environments, because it represents a standardization of parameters. Although the standard contains production tolerances the user achieves stable quality. Overall one has to take into consideration that a standard is not a standard. I differentiate between three types of standards: the ISO Standard (the international standard); it has the most secure and highest quality, which has been confirmed worldwide (thus changes always take a bit longer); second, the industry standard, such as the media standard by BVDM. This is not an ISO Standard – although it can fall back upon ISO Standards – however, it can be applied and changed faster. The third one is a technical specification which is defined by an individual company. This is very flexible and can be adjusted quickly. In order to know – as a customer – which standard has been applied it is always recommended to ask your print provider.

FograCert is the name of Fogra’s modular test program. In the prepress area we are trying to follow ISO 100%, i.e. the criteria and contents we are testing are 100% ISO-compliant. Thus Validation Print is not an approved ISO Standard, it is a draft. In order to publish a ready ISO Standard it takes a certain amount of time – ideally two years, but usually up to four years.

EFI: *There are two versions of Validation Print: Validation Printing System, which is targeted at printer manufacturers, and Validation Print Creation, which is targeted at digital printers. How do manufacturers and digital printers benefit from undergoing the certification process?*

Fogra: It gives manufacturers security knowing that their system achieves an internationally recognized and accepted quality. Thus they have, of course, the opportunity to use this certification as a marketing tool and to confirm certified quality to their customers – with all the detail that has been tested, e.g. with light fastness, color accuracy and grey balance. On the other hand, these tests also show weak points. In the past we have been able to trigger developments with some of the manufacturers in the area of print and image quality which led to further product quality enhancements.

For service providers the benefits are very similar, although the market is still developing and it is hard to finally judge the significance. For now, the value add lies in the fact that those digital printing systems which comply with the standard are not sold out-of-the-box but they are sold with extensive consulting and training. Companies, be it manufacturers, dealers or graphical experts, that offer consulting, installation and post-sales support can prove by means of the stripped-down version of the certification of their system (275 Euros) that they have successfully implemented this solution. Thus a printing system can also be certified in a different combination

(e.g. with different paper) from what it had been certified with for the system printing certification. If a system passes the Validation Printing System Certification, we can expect it to also pass the Validation Print Creation. Service providers can use that certification for themselves or they can offer a choice to their customers between proofs as an expensive and high-quality variation, and Validation Prints as the less expensive version. It is important to consider that we are certifying image quality and not the technology which is used to produce this image quality. Customers are looking for “a nice image” which is sharp and which has the expected look and feel. That is the image quality and it is not dependent on any characteristics which are technology based. By the way, this changes very quickly anyway.

EFI: *Up until now certification has represented the quality of a print-out at a certain point in time. Are there any plans to further develop the certification so that it shows quality over longer periods of time?*

Fogra: Yes and no. I would not speak of “further development” – basically we would be able to carry out such a test now. However, we need to keep in mind who we are targeting with such a certification. Every additional thing we certify has to be paid for, and the more tests we carry out the more expensive it gets for the target group. Thus such a complex process is getting increasingly unattractive, especially in times of high competitive and cost pressures.

Therefore, I consider the certification to be a good compromise between practicability and cost efficiency. This is an important point which needs to be taken into account. And printers that have already had a focus on quality use so-called online tracking systems such as Maxwell or Mediagrap that enable quality insurance over a whole production run regarding color values, anyway. I don’t see the market right now for such an application. However, I am very open to new ideas; if the industry convinces us that they need it and if they are willing to pay for it. But at this point in time I don’t think it is necessary.

EFI: *This also refers to long-time repeatability. By this, we mean: what happens to the 1st print-out and the 1,000th and the 100,000th print-out of a print run?*

Fogra: This question very clearly is concerned with production criteria. We have already been testing 24-hour consistency, i.e. we test how well the same data will be printed the next day. But what we don’t test is production. This was explicitly excluded. This is why we are working in our digital print group on such a production standard – a kind of “12 6 47-2 for digital print.” This standard will contain criteria for the print run, e.g. the print run variation, Mechanical Ghosting and Toning. This means we are investigating the influence of a print job on following prints. I am sure that it will take some time before such a production standard is ready.

EFI: *As a last question: This certification is currently only obtainable from Fogra. Up until now these parameters have not been included in the ISO Standard. Thus Fogra is internationally leading in this area. When can we expect Fogra Validation Print Certification to become part of the ISO Standard?*

Fogra: Actually, it's exactly the other way round. Fogra is certifying according to the criteria of an ISO Draft: anyone can get this document through his national standard, such as DIN, in order to carry out this test. These are internationally accepted criteria, which are 100% defined and which will be finally published. However, this cannot be called FograCert. The criteria have an advanced status – whereby one or other technical criterion can still change in the next revision, but we accept that. The revision of ISO is mainly driven by Fogra (I am the editor of

this standard). We carry out a lot of research and practical investigations on our own. We will further develop ISO in this direction. However, it is my objective to “first further develop ISO internationally and then the Cert.” Customers will then have a much higher security if we certify according to criteria which are internationally recognized – these are not Fogra internal gauges, not Fogra standards; these are international standards, in which Fogra is very active, in order to take them onto a high level. Fogra is able to represent the interest of its members in the ISO so that the members of Fogra know that they are internationally represented at its best.

Mr Kraushaar, thank you very much for the interview.

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