Every print shop is committed to a high level of quality. A basic prerequisite for this is to use meaningful rules, hence a standard. In standardization a distinction is often made between the specification of the final aim and the needed steps to achieve that aim. A good example for the latter one is the PSO - Process Standard Offset, which is successfully in place for years. The PSO facilitates the printing aims defined in ISO 12647-2. So you can say: “ISO 12647-2 defines the aims and the PSO the way how to achieve it”.

This established principle is now transferred to digital printing.

New: Fogra PSD – ProzessStandard Digital

Consistent print quality for small and large format digital printing – according to Fogra standard

Here the emerging multipart standard ISO 15311 covers the requirements for printed matter utilizing digital printing technologies for the commercial and industrial production. Contrary to ISO 12647, which is structured by the different printing technologies, it will be separated by typical use cases. Part 1 will describe the concept, relevant parameters and measurement methods, and was recently confirmed as a working draft. Whilst the requirements for the commercial production on small format machines will be covered in part 2, the pertinent specifications for the large format sector will be nested in ISO 15311-3. Both parts are currently discussed within ISO TC130 and first drafts are nearing publication.

The Fogra PSD has three main objectives:

First, the different output processes are examined to achieve a consistent print quality.
Second, a consistent colour communication by means of faithful image reproduction must be in place [colour fidelity].
Third, the entire workflow is subject to critical scrutiny as to its capacity for sustained achievement of consistent print quality and colour fidelity [Workflow].

Fogra PSD – Answering the growing need for process stability and quality assurance in digital printing, not only for Fogra members

A consistent and reliable digital print production will be achieved by taking important aspects of the workflow and the staff under scrutiny. The objective tests are based on economically and technically feasible aim values and tolerances throughout all stages of the production chain. This is especially important in digital printing, where the production steps, the materials used and output processes have traditionally been very diverse.

Taking into account these three aspects, it is possible to make prints, regardless of the specific technical conditions of a digital printing press, or of different materials. The important aspect to communicate is the reference printing condition or more general a characterization data set [such as FOGRA39] that ought to be simulated or matched. In the case of printing media-independent RGB based documents the print buyer often expects a pleasing print output. In this case, a basic test for the grey reproduction and tonality is carried out3.
Standardization does not mean that materials such as substrates, inks, toner or machinery must be limited. On the contrary, Fogra PSD aims toward a manageable facilitation of a material and process diversity in terms of rigours and consistent print quality. Only then is it possible to identify suitable "combinations", i.e. collection of a driving [RIP & colour management], a substrate, ink or toner and a printing press. It should be noted that the Fogra PSD is currently restricted to printing substrates, that allow for a meaningful interpretation of ISO 13655-compatible measuring instrument readings. In other words, matching measurements for conventional and digital prints need to be consistent with the visual judgement. This means that at this stage only paper-like substrates are used.

Extensive studies of Fogra show how different "combinations" are able to achieve a defined print quality. Recent results form the basis for the used target values and tolerances of the relevant image quality attributes. These are published on the Fogra website. The presentation of the detailed requirements is planned for the Fogra symposium "Digital Printing meets Offset " on 23/24 May, 2011.

The benefits of Fogra PSD can be summarized as follows:

- Increased production reliability and a smooth workflow
- Reduced costs in terms of time and materials
- Improved quality of the printed product.

The subjects for examinations are:

1. Output process control ➔ Achieving a repeatable print output

2. Colour fidelity ➔ Process and material independent realization of
   a. Consistent print quality against a defined aim [e.g. FOGRA39]
   b. Pleasant print output for RGB-based documents

3. Workflow ➔ Realization of consistent print outs, across different workflow and RIP-solutions, based on complex PDF documents. Availability of adequate instruments and staff knowledge.

Is there a Fogra PSD manual [handbook]?

Fogra plans to publish a manual that provides concrete and detailed work instructions for the daily practice. It will be focussed on two general use cases, small-format digital production printing and large format printing. Here, Fogra works in close cooperation with practitioners in the field.

When can I get certified?

A presentation of the prerequisites regarding the certification process and the detailed test conditions will be presented at the Fogra symposium "Digital Printing meets Offset" to be held on May 23/24, 2011. From then on certification is offered through Fogra. Appointments, however, can already be made now.

Your Contact:
Andreas Kraushaar
kraushaar@fogra.org
Tel. +49 89. 431 82 - 335

As with the PSO, we highly recommend to visit a preparation seminar at Fogra, see Fogra webpage for suitable dates.

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Fogra PSD concept. Aiming for a consistent and predictable print quality, the three aspects output process control, colour fidelity and workflow need to be evaluated.