Profiling non-standardized printing conditions

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ICC Color Experts Day, Bressanone
Colormanagement by GMG

- **GMG ColorServer**: Automatic color conversions ensuring consistent results across different substrates.
- **GMG InkOptimizer**: Automatic reduction of chromatic inks resulting in better print stability and significant ink savings.
- **GMG SmartProfiler**: Easy-to-use calibration and profiling wizard for digital and large format systems.
- **GMG ColorPlugin**: The ingenious plugin for Photoshop turns complex retouching tasks into simple ones that anyone can master.
- **GMG ColorMaster**: GMGs unique and outstanding RGB-Workflow, most efficient to highest color quality.
- **GMG OpenColor**: Innovative profiler exactly predicting how your inks will interact on press.

Proofing by GMG

- **GMG ColorProof**: Internationally renowned plug-and-proof solution for printing contract proofs unrivaled in terms of color accuracy and consistency.
- **GMG DotProof**: Market leader for printing halftone proofs, this is the only software solution that genuinely simulates dot patterns in contract proof quality.
- **GMG FlexoProof**: Contone and halftone proofing solutions with additional special effect features for the packaging market.
- **GMG ProofControl**: Proof verification tool for printing and measuring control strips and evaluating the measurements according to print or in-house standards.
- **GMG ProofMedia**: GMG provides best-quality proof media with optimally matching profiles for all contract proofing requirements.

GMGs unique and outstanding RGB-Workflow, most efficient to highest color quality.
In-depth Expert Knowledge and Customized Services

GMG Academy
Gain valuable first-hand expert knowledge with training from GMG Academy.

GMG Services
Reliable expertise on all aspects of color management, installation, ongoing support, and system maintenance.

GMG Consulting
From creation and prepress to production, analyzing and optimizing the whole color management chain.
Agenda

**Input**
characterization

**Output**
characterization / profiling/separation/optimization / process control
Standards for CMYK Offset-printing are defined for:
- inks
- media
- color on media
- process
...

Leaves only a reduced number of variables to be adjusted in production:
- ink densities
- plate curves
- ...

About standardized and non-standardized printing
About standardized and non-standardized printing

- Standardized printing is accompanied by tools for a universal and consistent data handling and color prediction.

- Non-standardized printing setups are basically starting from scratch:
  - no standard ink-set
  - no standard media
  - no reference for color on media
  - standard process description
  - …
About standardized and non-standardized printing

- evaluation and check of actual setup and settings
- Everything clean and ready-to-go?
- Ink-split, ink-cut, total ink-coverage, …
- Rip-settings?
- ….

- In a non-standardized setup, more responsibility shifts to the prepress department
Characterization of a process

Visual Test Form

Homogeneity Test Form
The characterization of 4 color front-end systems may use standard testcharts (ISO 12642).

Standard-Multicolor-Testcharts for 5, 6 or 7-color processes are just under development. Proprietary charts are most often used.

The characterization is to be the representation of a defined output setup.
Profiling, Separation, Optimization

- Profiling is the process when your characterization is compared to another characterization. (e.g. input data is delivered in F39)
- Profiling quality comes from:
  - gamut mapping
  - separation
  - exceptions, where needed (e.g. pure black etc)
- Usecase dependent settings!
- Consistent color appearance.
Profiling, Separation, Optimization

reference

„my simulation“
Profiling, Separation, Optimization

- Optimization stands for usecase-specific adjustments like:
  - ink saving
  - image enhancement
  - …

Light GCR 93/91/73/42
Medium GCR 67/60/44/60
Strong GCR 31/19/5/84
Process Control

reference

„my simulation“
Fragen?
Wherever a color goes it stays that color