



10 Challenges for Print Quality Managers

Using Technology to Solve

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Global Print Quality Manager



- 35+ yrs industry experience
- 13+ years @ 3M Company



print and color brand management leadership



daily monitoring of print partners



involved in latest technologies in the industry

- brand council with AP tech
- curriculum council @ Dunwoody College of Technology



Intro

- 30 years of evolution in print quality
- Complexity increasing: more substrates, more SKUs, global color expectations, decentralized supply chains
- Good news: emerging tech is catching up to our challenges
- Today: top 10 issues + the tools that solve them



1 - Color Consistency

The Issue:

Color variation between suppliers, regions, substrates, and print processes.

Tech Solutions:

- **PantoneLIVE / X-Rite Cloud:** Centralized, cloud-managed spectral color standards
- **Barbieri Spectro LFP qb or i1Pro3:** Automated, device-agnostic measurement
- **GMG ColorServer / EFI Fiery Edge:** Automated color conversions across workflows
- **Impact:** reduces subjective interpretation, enforces one color target globally.



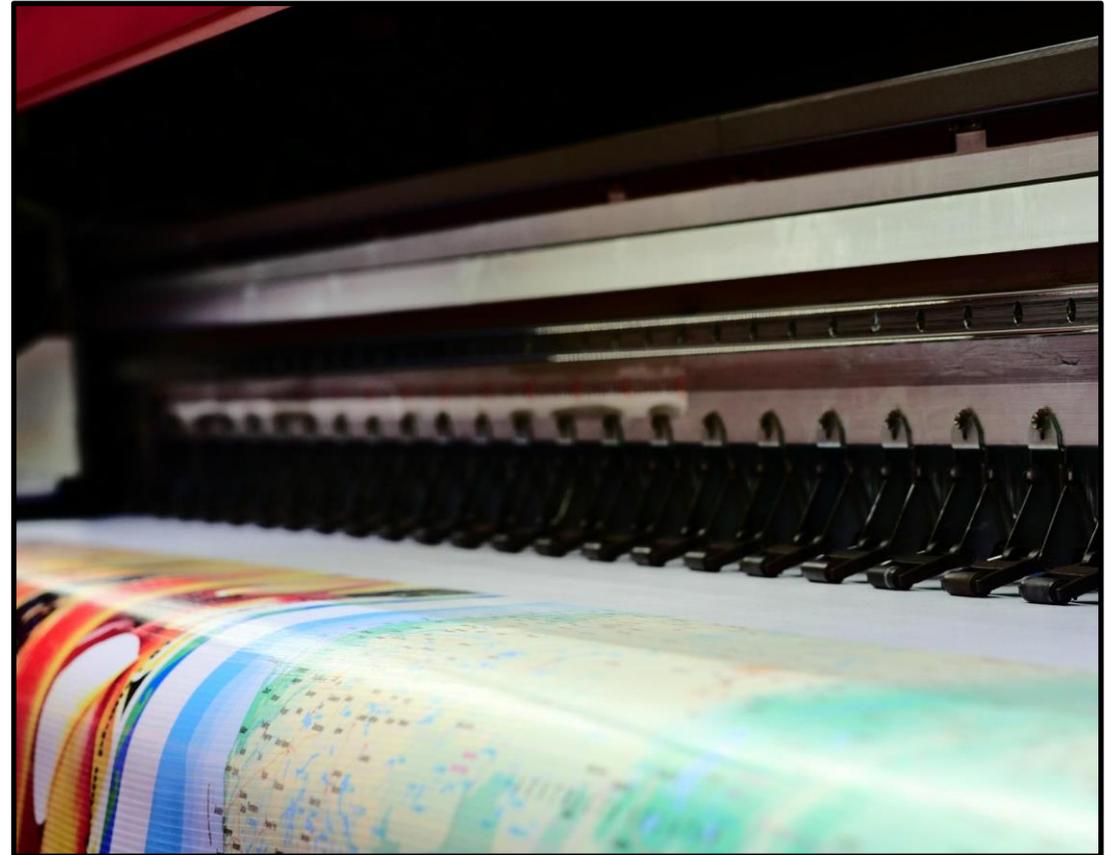
2 – Variation Processes and Substrates

The Issue:

Flexo, digital, litho, screen — each behaves differently.

Tech Solutions:

- **G7 + PrintWide/CMYKOGV profiling using RIP automation**
- **GMG OpenColor:** Predicts print results across inks + substrates using spectral modeling
- **HARLEQUIN / Esko Color Engine automation**
- **Impact:** predictable output without manual trial-and-error.



3 – Data Fragmentation & Lack of Visibility

The Issue:

Color data lives in spreadsheets, email, shared drives, plant servers.

Tech Solutions:

- **Cloud dashboards:**

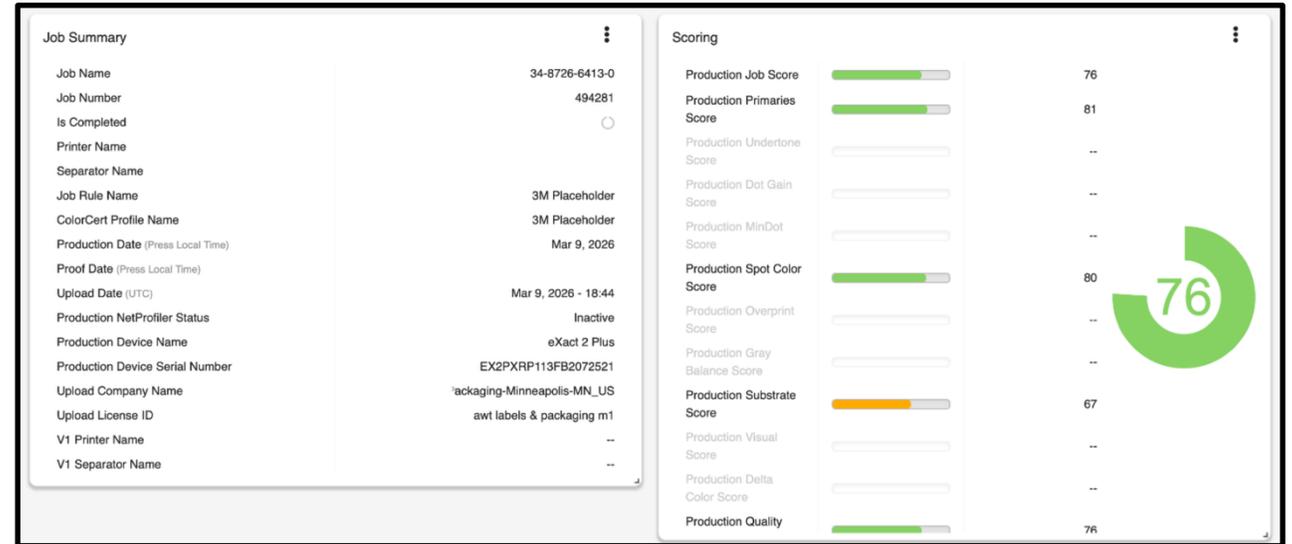
- Esko WebCenter

- PrintFlow

- ColorCert Scorecard Server

- **API-driven data consolidation** from spectros, presses, prepress systems

- **Impact:** real-time, global print quality scorecards.



4 – Manual, Reactive Print Quality Processes

The Issue:

Too much firefighting; not enough prevention.

Tech Solutions:

- **AI-driven press monitoring (Heidelberg Prinect, HP PrintOS, EFI IQ)**
- **Automated defect detection using machine vision (BST, AVT Helios, EyeC ProofRunner)**
- **Predictive maintenance models** on digital presses
- **Impact:** fewer surprises on press, measurable reductions in scrap



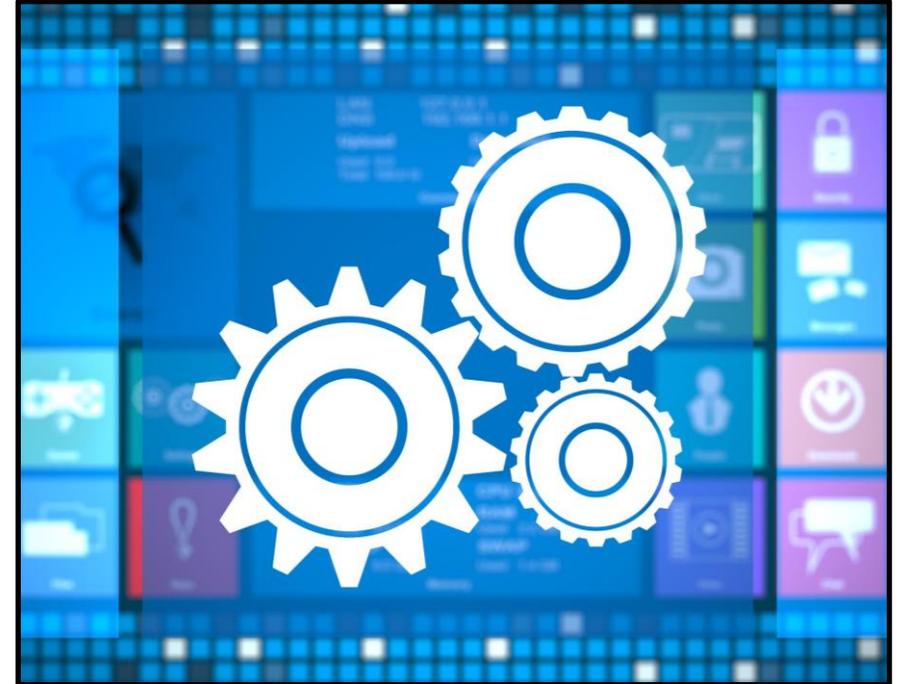
5 – Speed of Artwork & Change Cycles

The Issue:

Artwork revisions happen faster than prepress and print can keep up.

Tech Solutions:

- **Esko Automation Engine:** automated preflight, trapping, step-and-repeat
- **Global artwork versioning tools:** Esko WebCenter, Loftware Spectrum, LabelTraxx
- **AI-based file checking:** identifies low-res images, incorrect profiles, missing bleed
- **Impact:** less human error, reduced cycle time from brief → press.



6 – Training Gaps & Skill Shortages

The Issue:

Experienced people are retiring; new hires need years of ramp-up.

Tech Solutions:

- **AI-guided color troubleshooting apps** (X-Rite Color iQC with guided workflow)
- **VR/AR press training** (Heidelberg, Komori)
- **Automated press presets:**
 - HP Indigo color calibration wizard
 - Heidelberg “Autonomous Printing” mode
- **Impact:** consistent quality even with less-experienced operators.



7 – Supplier Variability

The Issue:

Multiple suppliers = multiple interpretations of your brand standards.

Tech Solutions:

- **Supplier scorecards:** ColorCert, X-Rite Insight
- **Digital QC package proofs:** GMG ProofMedia + proof certification
- **Cloud-based master profiles** shared globally
- **Impact:** measurable, comparable supplier performance.



8 – Scaling Print Quality Across Regions

The Issue:

Global brands need repeatability across continents.

Tech Solutions:

- **Distributed color measurement networks** (cloud-linked spectro devices)
- **Automated compliance reports** delivered to brand teams
- **Shared calibration workflows** for multi-site operations
- **Impact:** all plants follow the same playbook.



9 – Speed to Market vs. Accuracy

The Issue:

Marketing wants packaging faster, but quality demands due diligence.

Tech Solutions:

- **Digital twins:** simulate print results before running the press
- **Remote press approvals (Zoom + calibrated monitors + live color dashboards)**
- **Unified color libraries** that update instantly across all tools
- **Impact:** predictable launches without sacrificing quality.



10 – Sustainability

The Issue:

Ink, substrate, and energy constraints make consistency harder.

Tech Solutions:

- **AI ink optimization engines**
- **Spectral prediction models** to build profiles without running press sheets
- **Press automation** reduces waste at make-ready
- **Impact:** lower carbon footprint and higher color accuracy.



Bringing It All Together

The Print Quality Manager of the Future:

- Data-driven
- Cloud-connected
- AI-assisted
- Global standards applied consistently
- Automated from design to QC scorecard
- Your role evolves from “color firefighter” to “**color system architect.**”



Conclusion

- The challenges are real — but solvable
- Technology has finally caught up
- Your toolkit today includes AI, automation, cloud workflows, color modeling, and real-time dashboards



Questions....



Thank you