



GETTING COLOR RIGHT ON CONSUMER PACKAGING

A Brand Manager's Guide

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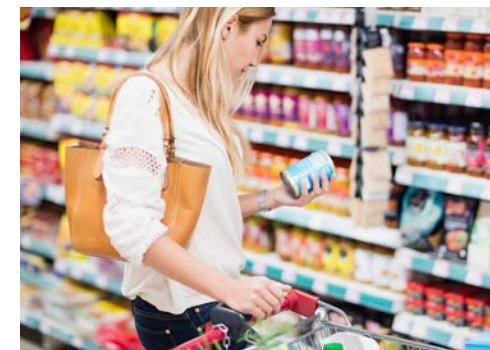
CHAPTER 1: COLOR THINKING FOR COLOR SUCCESS

Smart color strategies lead to data-driven solutions that have significant time savings in design and production.

The Current State of The Industry

Brand companies and their print suppliers invest great effort and expense to standardize their quality results, and to build processes and protocols that will help them achieve better quality re-print and color.

Considering the amount of resources that brands and design teams invest into creating the right face for a product, the stakes have never been higher for production accuracy. Brand managers and designers want design intent to be realized in the final product, every time, and everywhere the design appears — in stores, online, in advertising, across regions and country.



First Moment of Truth:
2-7 Seconds after a
shopper first encounters
a product on store shelf

When the design intent is miscommunicated in the final product, all the hard work vanishes in 2-7 seconds.

The consumer does not see anything else. They may hesitate to buy an item from that brand and if it is a food product, they may even wonder about safety.

THE SIGNIFICANCE OF COLOR CONNECTION

The importance of color cannot be understated. At the most fundamental level, color connects with consumers' emotions. Creating strong emotional connections with your target audience builds greater brand equity, in a marketplace where competition for share of mind, heart and pocketbook has sharply increased.

When used effectively, color can instantly communicate the product or brand story.

In an even more practical way, color creates a connection throughout a product line. It allows for line extension, while building on the equity of the core brand identity.



THE WALL OF COLOR

The connection of color across a brand and its product lines is also important while building a “wall of color” in the retail environment. Familiarity with color is so powerful, that even from a distance, shoppers can identify a brand within a shelf set.



Cracks in the Wall

Intelligent Print Quality Programs

To prevent color inconsistency problems from surfacing, many brands have worked with their print suppliers to create traditional print quality programs. The expectation is that print quality programs will deliver clean, consistent, and repeatable color quality results.

While there are many different programs existing today, they all tend to have a common theme:

- Send representatives onsite to monitor print production
- Multiple proofs and samples are needed for visual inspection
- Proofs or samples are shipped around the globe for approval
- Sign-off for color happens on-press

Great results do not require brand representatives attending every press run. Brands should have confidence that their print suppliers can perform at a defined and agreed upon level of quality. Suppliers should be able deliver comparable quality results to one another. And, at a minimum, brands should be able to easily identify the printers and suppliers who can.





CHAPTER 2: LEVEL UP YOUR COLOR STRATEGY

Moving to Data-Driven Color

A traditional Print Quality Program is a method of monitoring the print supply chain throughout different aspects of print production.

Print quality programs (PQP) are often implemented by a brand using a 3rd party partner to define, implement, monitor and report on the print results over time. Programs are costly to implement and maintain due to consulting fees, travel expenses to printer sites, shipping of samples, and lab time to measure and monitor results. Another challenge is that the evaluation of print results can be arbitrary due to a lack of standardization of reporting methods, which tend to vary by printer. Printers' scores can be weighted or skewed based on preferences. Getting the results that brands truly expect requires going to the next level, and exploring quality programs that go beyond traditional PQP models. A data-driven Color and Print Quality Program is a technology-based solution that increases transparency in the supply chain, and drives continuous improvement with print suppliers. Printers are provided with tools that empower them to deliver better results. All of this allows brands and printers to:

- Leverage existing investments in process control
- Use data to monitor print quality over time, and gain insight to make changes and achieve organic improvement
- Reduce the costs and services required to maintain the program
- Standardize scoring methodology to create balanced scorecards across printing suppliers

THE CONFLICT BETWEEN DESIGNED COLOR AND ACHIEVABLE COLOR

Brand managers and designers want to see great colors brought to life, and speed to market. While brand managers and their designers always desire a first run approval, the impact of unreliable color standards causes successive print runs.

Each time the baton is passed between design and execution for proofs, prints, and drawdowns, time and money is lost.

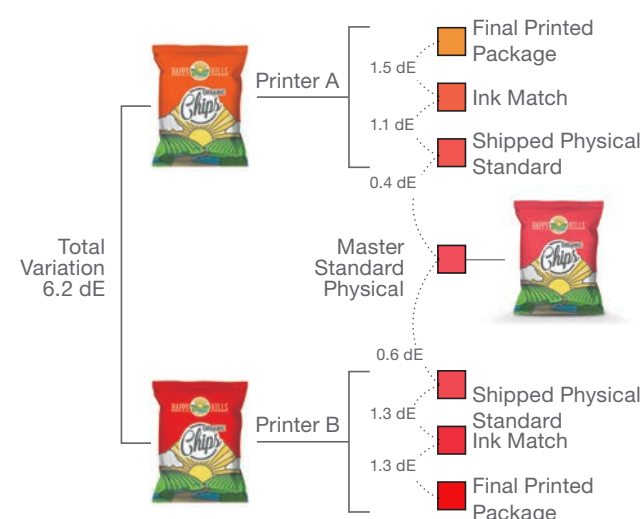
Going to Digital Color Communication

ELIMINATE THE ERROR STACK

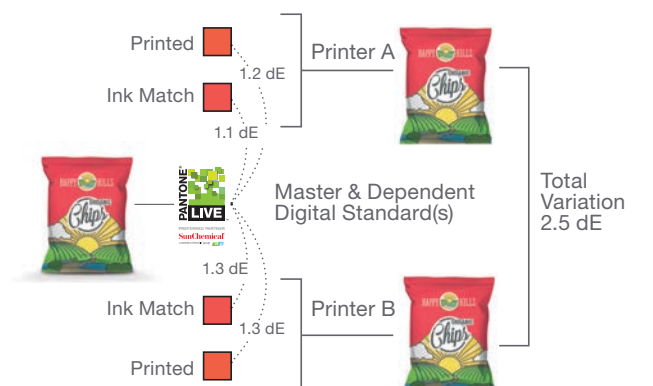
A common issue comes from the outdated practice of matching colors based on an approved physical proof. Approval is done by visual evaluation, making it subjective from the start. Each step in the production flow creates another copy of a copy for the next person to work with, and the color becomes incrementally less accurate each time.

When color is this critical, **this outdated practice is not the best practice**. Instead of giving each flow step a new copy to work with, each should have access to and be measured against the original color data. Digital standards and workflow allow exactly that. In each stage of production, from proofing to ink matching to printing, the exact color specified by the designer can be used. This results in the best possible color matching, all the way down the line. It is a surprisingly simple and efficient way to improve color consistency on the shelf, while reducing the amount of back and forth interactions between design and execution.

The Error Stack Comparison



Reducing The Error Stack



BRAND COLOR MATURITY MODEL

We've developed this Color Maturity Model to help assess your current color and print quality program maturity, and outline potential steps you can take to enhance your current program, getting you on a path to more accurate and consistent color on your brand packaging.

	 MATURITY LEVELS DEFINED	 COLOR STANDARD	 COMMUNICATE	 VERIFY / CHECK	 PRODUCTS THAT MAP TO PLACE IN THE MATURITY MODEL
LEVEL 5: ENHANCED PROGRAM	Implementation of a color and print quality program to define specification and tolerance for color and print requirements. An organizational mission and definition of ongoing process, performance goals and sustainment plan program for the print supply chain to include consideration of color and appearance.	Other aspects that affect the appearance of color can be considered like surface texture, gloss or reflectivity.	Enriched data and content to be enabled Total Appearance Capture.	Enriched data and content to be enabled Total Appearance Capture.	<ul style="list-style-type: none"> • ColorCert Scorecard & Job Server (Online Portals) • eXact Spectrophotometer • ColorCert Software (Desktop Tools) • PantoneLIVE + Private Brand Libraries • Pantone Simulators • Pantone Conventional Print Standards • Pantone Formula Guides • Brand Style Guides
LEVEL 4: INTEGRATED WORKFLOW	Networked and distribution color quality and formulation software is used to implement and manage a controlled color and print quality evaluation.	The digital spectral values of the colors are stored in a color library. The database can increase in sophistication by cross-referencing master colors to how they look when produced on different printing materials or substrates.	The digital library is hosted centrally online where suppliers can access up to date colors with good version control.	The printed package is measured before and during the press run. The results are posted online, scored and made available immediately after press run.	<ul style="list-style-type: none"> • ColorCert Scorecard & Job Server (Online Portals) • eXact Spectrophotometer • ColorCert Software (Desktop Tools) • PantoneLIVE + Private Brand Libraries • Pantone Simulators • Pantone Conventional Print Standards • Pantone Formula Guides • Brand Style Guides
LEVEL 3: VISUAL + INSTRUMENTATION	Color quality control software and spectrophotometers are used to augment visual assessment with objective measurement.	The ideal sample of the desired color is captured digitally with a spectrophotometer and stored for use to get repeatable results of that color.	A digital .cxf file that contains that measured spectral value of the color is shared with suppliers electronically. (ex. Send by email)	The printed package is measured before and during the press run. The results are recorded and captured manually in a report or COA. Access to the final results and production samples are provided with a few weeks of the production run.	<ul style="list-style-type: none"> • eXact Spectrophotometer • ColorCert Software (Desktop Tools) • PantoneLIVE • Pantone Simulators • Pantone Conventional Print Standards • Pantone Formula Guides • Brand Style Guides
LEVEL 2: VISUAL + ASSIST	Visual color standard with the addition of a contract color proof and physical sample of spot color are provided for suppliers to see the visual match required.	Color is reference in a named color system + a contract color proof and physical sample of spot color are provided for suppliers to see the visual match required.	Physical proofs and samples of color standards are shipped or physically provided to suppliers.	Creative Director or Designer will attend press run to sign-off on accurate color visual during make-ready before production run begins.	<ul style="list-style-type: none"> • Pantone Simulators • Pantone Conventional Print Standards • Pantone Formula Guides • Brand Style Guides
LEVEL 1: VISUAL	Define color with a color system and assess printed color results visually.	Color is reference in a named color system. Ex. Refers to a color in the Pantone Formula Guide.	Brand Style Guide or similar document is shared with suppliers to meet the visual requirements of the brand.	Final printed samples are assessed visually after the production run.	<ul style="list-style-type: none"> • Pantone Formula Guides • Brand Style Guide

CHAPTER 3: BE SPECIFIC

Get The Quality Results You Want



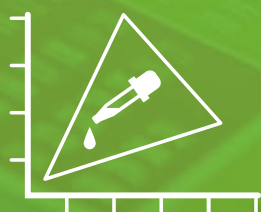
COLOR SWATCH



STYLE GUIDE



PRODUCT PROTOTYPE



DIGITAL COLOR
STANDARDS &
LIBRARY



BRAND
ONLINE PORTALS



VIRTUALISATION

Brand colors are too valuable to be compromised by weak quality specifications, especially when achievable standards are so readily available for a wide variety of packaging materials and print production processes.

Color problems can get exponentially more complex to address as the business expands and more suppliers are needed to meet geographic growth, substrate variations, and higher volume requirements. The deviations of the variables grow even more and can leave you feeling like you are in an endless loop. You do not need more services and committees to improve the quality. You cannot scale up effectively with more people to visit growing print runs and adding more print sample checkpoints. You also do not have to accept that it is just the way it is.

A better alternative is to apply the principles of continuous improvement, specifically for your color workflow, and respond appropriately. Invest time in assessing your current color specification and print quality workflows, processes and tools to better understand how you can reset your current program in a way that will empower print converters to deliver the quality results you both want. X-Rite Pantone can work with you to do exactly that.

Start the transition to a responsive and intelligent color and print quality program by taking back control of your colors on printed packaging. Printers can succeed at meeting your needs when you set a realistic and achievable standard with a well-defined color specification that is easy to understand and adopt. This means leveraging a digital color library that includes your brand colors (referred to as master standards) as well as colors variations that show what those master brand colors will look like when applied to various substrates, using different print processes and inks (dependent standards). When designers and brand owners are equipped with the right color library, they can specify the color properly for printing on packaging—everything from flexible packaging to corrugated board—before the design hits presses. This allows the printer to work with an achievable color standard from the start, so you get more accurate color and consistency, with less back and forth.

HOW TO BE SPECIFIC

Creating Achievable Standards

Color specification is critical to achieving strong color and print quality.

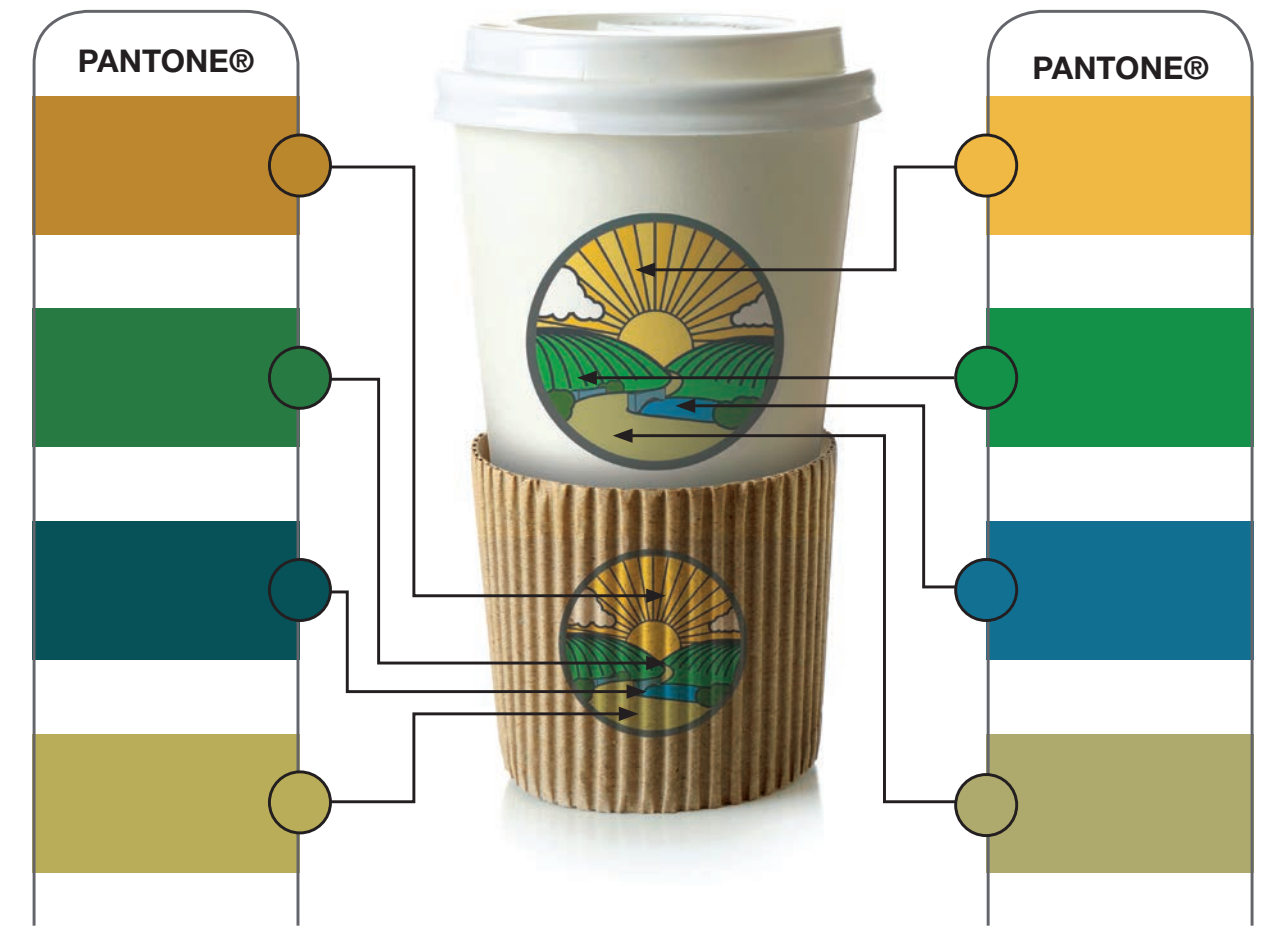
Most importantly, colors should be specified in a way that enables accuracy, achievability, and repeatability. X-Rite Pantone color solutions equip users with a full library of Master Pantone Standards. These are the same standards found in the Pantone Formula Guides that designers commonly work with today. A versatile database of dependent standards on a wide variety of packaging materials for different printing processes is now readily available. Designers and packaging printers can finally use a common Pantone Library to get the best, expected results in packaging design.



Removing Subjectivity

**PantoneLIVE
Dependant Standard**
Paper Packaging Flexo Water Brown Kraft (FYBK)

**PantoneLIVE
Master Standard**



Dependent Standard

Provides a visual representation of what the Master Standard will look like when applied to the selected packaging material/substrate

Master Standard

The specified, designed color

When all the full color library resides in a secure, centralized cloud ecosystem that's accessible to all supply chain stakeholders around the world - it doesn't matter if the brand color is specified in London, the designer is in Los Angeles, prepress is in Munich and printers across the globe, everyone is working off of the same color standards for printing.

CHAPTER 4: DATA- DRIVEN COLOR & PRINT QUALITY PROGRAM

Creating a Data-Driven Color & Print Quality Program for Your Brand

X-Rite Pantone's Color and Print Quality program model empowers brands to take control of their colors, get the printed results they expect, while cutting down the steps necessary to get there.

What Makes X-Rite Pantone's Color & Print Quality Program Different:

The degree of color certainty that an X-Rite Pantone solution empowers is unprecedented in the current market. X-Rite Pantone helps you obtain a more refined level of color achievability through a technology platform that you can own and operate. It moves you away from color systems that exist solely on your screen, or reliance only on physical references to match against. Digital ecosystems connect you, your printer, and your entire production under one common library, leaving no opportunity for mistranslation. And, it is augmented with physical standards that truly match the digital values.

You will gain new levels of transparency with your printers by being able to speak with them directly about the color results you expect off the press with greater trust, and immediacy through faster formulation, matching, and approvals.

It starts with specifying your Colors...

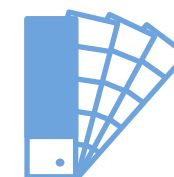
Color Systems



Establishes accurate color
Ex. Hex, Pantone, CMYK, RGB

Establish

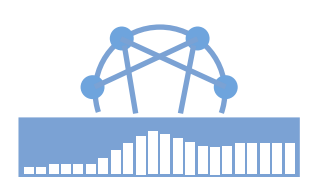
Physical References



Augments accuracy
of any color system

Improve

Digital Ecosystem



Improves accuracy and
provides for consistency

Advance

REWARDS OF ENHANCING YOUR CURRENT COLOR & PRINT QUALITY PROGRAM



Improve time to market

New artwork can move through production up 4x faster. Approval cycles are shortened, and minimal time is required to match colors across numerous substrates.



Align Physical and Digital

PantoneLIVE sets a clear, achievable color target for everyone to work from—from web design, to packaging, and beyond. This allows you to manage color expectations with high and realistic standards.



Improve Quality and Compliance

A verified digital standard and technology-driven model gives you better insights to assess and evaluate the printers you use. This encourages transparency and builds trust in your relationships with printers.



Optimize Spend

By reducing the number of reprints and reruns, you narrow your print costs and turn those funds into profitability.

ELEMENTS OF A DATA-DRIVEN COLOR AND PRINT QUALITY PROGRAM

Achievable, Cloud-Based Color Standards: PantoneLIVE

Brands and their workflows must be united by a shared set of color standards. By establishing digital standards through PantoneLIVE, guaranteed accuracy can be achieved on printing presses, ink systems, and 80% of packaging substrates.

Color data for jobs, and even securely-hosted brand spot-colors, can be exchanged between any printing location with the software. Since Pantone is so widely accepted and adopted by designers and printers, communicating standards through PantoneLIVE effectively closes the waste-roundabout between creation and production by allowing them to communicate in the same language.

This is going to save you from countless test prints, drawdowns, and re-runs over the life of your color and print quality program.

Print Reporting and Transparency: ColorCert

Once the cloud-based color standards have been established, you will need a reliable way to verify that these standards are being consistently achieved. ColorCert does this by bringing real-time quality reports right to your desk. When high quality data is available to you instantly, you can save time and money on travel expenses for press-trial runs and on-press approvals, and the need to ship samples. Job quality data is displayed as a reporting scorecard, which awards a grade or score to the a job based on tolerances. Score-carding allows brands to set clear expectations, monitor print quality on press, and see data reports instantly. As a result, both brands and converters can leverage ColorCert for a more strategic and holistic approach to color management.

You can save up to 76% on travel expenses for press-trial runs and on-press approvals.

CHAPTER 5: PLANNING A SUCCESSFUL PROGRAM

A successful implementation of an enhanced CPQ program allows you to leverage technology to expand your design execution capacity. With an enhanced program, you will get to market faster, and, you will get to market faster, and achieve print color consistency across suppliers, materials, and locations—all while reducing your print-related costs.

Discovery Phase

As we help you improve your color and print quality, we will conduct an assessment of your current operations to gain a comprehensive understanding of your place on the color maturity model from pages 14-15. We use this knowledge to tailor a solution that is optimal for your company and workflow. During this assessment, we will evaluate numerous aspects of your workflow, including how you:

- Select your colors
- Communicate colors to the printer
- Manage brand legacy colors
- Conduct on-site approvals
- Set targets for your operators
- And much more...

Action Plan

- 1 Once we have completed the discovery phase, we will establish an action plan for your program by defining the vision and success KPIs.
- 2 Then we will begin to configure the technology, workflow processes, and job settings that will aim your program for success.
- 3 When this is completed, you will be ready to pilot a launch of the program, with X-Rite Pantone still at your service.
- 4 This pilot launch will provide critical insight of the program as it runs in real time, and will allow a period for reviewing and approving the workflow.
- 5 Once the output of the pilot program has been approved, the full-scale program will begin to roll out across your operations.

The goal of a successful roll out is not only to optimize the workflow, but also to create a path for continuous improvement so you can become more efficient with each new job you run.

Critical Thinking Before Moving Forward with an Enhanced Color and Print Quality Program

The Workflow Assessment will help lay the foundation for a solid and reliable Color and Print Quality Program. This includes a number of critical elements to any process or workflow change: establishing roles and responsibilities, defining new metrics, and outlining new workflows.



COLOR AND PRINT QUALITY (CPQ) MISSION

Why have a CPQ?

- Improve brand color consistency
- Increase speed to market
- Reduce production costs
- Improve visibility on performance of packaging printers

Determine why you need the data and how you will use it:

- Organizational alignment ensures transparency with suppliers
- Establish standardized print quality metric
- Obtain data to capture continuous performance improvement



DEFINE COLOR SPECS

Brand

- Where are brand colors coming from?
 - Physical samples and previous production samples
 - Digital Color Library
 - PantoneLIVE Color Libraries

CMYK/Extended Gamut

- Industry standard profiles
- Printer standard profiles



DEFINE PRINT SPECS

Consider the following:

- What measurement calculations do I apply to my standards?
- Define acceptable color tolerances for your colors, based on production implications (ink system, printing processes, substrates or materials)
- Print and profile specifications to the appropriate industry standard



ROLES & RESPONSIBILITIES

Define core teams involved in the program:

- Who is establishing the program?
- Who is deploying the program?
- Who is responsible for sustainment?

ACTION PLAN

Once your workflow assessment is complete and you are transitioning to a data-driven Color and Print Quality program, X-Rite Pantone can assign a dedicated project management team to ensure a successful roll out. These individuals will stay with you every step of the way, and ensure a successful program is implemented internally with key stakeholders, and with your printers.

ROLLING OUT AN ENHANCED PROGRAM

Once you have the foundation for your program built internally, you'll need to set expectations and communicate this new program to your printing suppliers to ensure a successful roll out. Getting your printing suppliers on board is critical to the success of your program.

1 PROGRAM ADMIN SETUP



COLOR & PRINT

Brand defines Color and Print Quality program including organizational mission and roles and responsibilities



SUPPLIER KICK-OFF

External kick-off meeting communicating goals and requirements of program to all packaging printers involved

2 VENDOR SETUP



REGISTRATION

Packaging printer registers on X-Rite Pantone landing page for appropriate brand program



EDUCATION

Packaging printer participates in on-boarding activities i.e. webinars and training



ASSESSMENT

Packaging printer is assessed for readiness for the brand program and outfitted with appropriate X-Rite Pantone solutions



ACTIVATION

Packaging printer is activated with the brand's ColorCert Cloud Services and Admin. Packaging printer subscribes to PantoneLIVE for online access to public and private color standards libraries



VERIFICATION

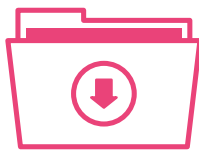
Verify that packaging printer has met the brand's requirements for training, software and equipment needed to execute program

3 DEPLOYMENT



SHIFT WORKFLOW

Packaging printer shifts color production workflow from visual to digital (through webinar and training)



ACCESS FILES

Packaging printer is granted access to the ColorCert CCJ files which contain job specifics and tolerance information



VALIDATION

Before Package Production

Packaging printer submits validation report



SUBMISSION

Production of Printed Packaging

Packaging printer submits score of job to ColorCert scorecard server

4 PERFORMANCE MONITORING



ONGOING

Packaging Printer continually self-reports from production runs in real time
Brand monitors performance

BENEFITS TO THE SUPPLIER

Partnership with Converters

X-RITE PANTONE SOLUTIONS ENCOURAGE TRANSPARENCY AND BUILD TRUST IN YOUR RELATIONSHIPS WITH PRINTERS.

Through better specificity of color, streamlined communication, and real-time quality control monitoring, you can partner with your converter to bring waste down. Print converters know the importance of quality color, and are interested in getting it right the first time, every time. Your preparedness helps them reduce their makeready time, and eliminate color problems, and save both of you money.

X-Rite Pantone solutions give you a leading edge on production-readiness, and help you move away from additional quality control with your printers.

Real-time job results let the printer take ownership for providing a quality product, and reduce your need for physical proofs—you can see a quantified quality score right as your job is coming off the press. If the number is within your designated tolerances, you will know immediately without waiting for physical proofs to be shipped. This data will make your production process more accurate and timely, shifting emphasis to the score, instead of the physical proof.

CONSULTING SERVICES

X-Rite Pantone is here to help you establish color management best practices that will equip you for color success. Below is a list of our most common consultation services, but our expertise can be applied in other ways as well. Ultimately, we want to partner with you to make brand color management smarter and easier.

Color Consultation Services

By leveraging the psychological message and meaning of color, the Pantone Color Institute helps you make the most informed color decisions for your brand(s) and product(s) to successfully connect and communicate your brand story with consumers. From color trend forecasting to brand color development to product palette selection, the Pantone Color Institute can guide you through the development of a color strategy to ensure you ignite consumer emotions, and create an underlying connection that can change perceptions.

Color Mapping and Rationalization Services

Our color scientists will analyze your color library and consolidate colors that have variations so small they are effectively the same. The colors are then mapped to standard Pantone® Matching System (PMS) colors and the respective PantoneLIVE dependent references.

Master Color Consultation

Our Color Scientists and consultants will work with you to take control of the color management specifications and processes. Align and reconcile your color challenges across multiple materials and mediums to achieve optimal results no matter where your brand color appears.



GET STARTED

It's time to take control of your color workflow, and reap the rewards of having higher quality color in less time. You've seen how much a centralized color workflow can cut costs, improve speed to market, create brand image consistency, and beyond. Now you're prepared to build your own CPQ program.

Here's how to get started:

- Explore the color maturity model to learn about your opportunities for operational improvement
- Consider the X-Rite Pantone solutions available for brands, and envision how these could integrate with your workflow

Ready to make a move?

Reach out to X-Rite Pantone.

We will do a risk-free assessment of your operations' current state and give you recommendations for increasing efficiency, and saving time and money within your organization. Our color experts will assist you at every step of the way, and see to it that you have an easy transition toward color that will work hard for your business.



ADDITIONAL RESOURCES

Case Studies

CPG Company Leverages PantoneLIVE to Streamline Color Management:
<http://www.xrite.com/learning/case-studies/cpg-company>

Global Beverage Company Partners with X-Rite Pantone to Improve Color and Print Quality Program:
<http://www.xrite.com/learning/case-studies/beverage-company-improves-print-color>

White Paper

5 Keys to Brand Color Consistency
<http://www.xrite.com/learning/whitepapers/5-keys-to-color-consistency>

Training

Invest in your most important asset—your people. Our color training and services are customized to fit your needs, schedule, and budget. From basic topics to advanced applications, our extensive library of courses spans every learning style to help you improve your color knowledge and ensure your workflow is the best it can be. Start your search below to discover the many options we have available, from seminars, classroom, and on-site training to eLearning modules and custom online help.
<http://www.xrite.com/learning/training>