Top 5 Things to Automate in a Packaging Workflow

A White Paper by:
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WhatTheyThink?

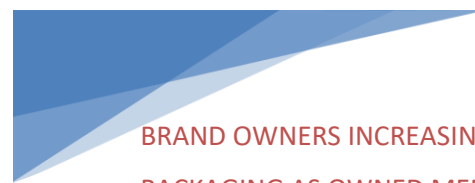# Top 5 Things to Automate in a Packaging Workflow

Introduction

As demand for smaller, often versioned lots and faster time to market continues to grow, brand owners, agencies and packaging converters alike are looking for ways to take time and touches out of the packaging workflow. They are interested in increased automation and solutions that improve the quality of the packaging while keeping costs in line.

In addition, brand owners increasingly view packaging as owned media – the last chance to affect buying behavior at the shelf. This means more complex packaging designs with more color, more photo-realistic images and more variable content that will cause packaging to not only fulfill its utilitarian uses – protecting the product during shipping, handling and sales – but convey the brand promise to consumers, increasing shelf appeal.

All of this presents a number of challenges for the highly competitive packaging industry. The good news is that there are tools and technologies available to help stakeholders in the packaging supply chain achieve these objectives, from design and specification through production.

In this white paper, we will discuss the Top 5 ways that packaging workflow can be automated to make the process as streamlined and cost-effective as possible without any compromise in quality. It is important to keep in mind that generating award-winning packaging and staying competitive in this complex market require a systematic approach. While it is possible to incorporate one or two of these ideas into a workflow, the ideal approach is to use the full array of software components in combination with high quality imaging technology in order to ensure competitive advantage.

BRAND OWNERS INCREASINGLY VIEW PACKAGING AS OWNED MEDIA — THE LAST CHANCE TO AFFECT BUYING BEHAVIOR AT THE SHELF.

Top 5 Things to Automate in a Packaging Workflow

1. Begin at the Beginning

Brand owners and their agencies and designers invest a significant amount of time, money and effort in designing the perfect packaging for their products. Typically, product packaging conveys a consistent brand image and messaging, but increasingly, brand owners want to create different versions to address the opportunities associated with seasonality, special events, regional differences, demographics and more. While SKUs are proliferating simply based on a greater variety in the marketplace, these demands

BY IMPLEMENTING PREPRESS PORTALS AND WEB-TO-PRINT STOREFRONTS, PACKAGING CONVERTERS MAKE IT EASIER FOR THEIR BRAND OWNER CUSTOMERS TO SUBMIT JOBS BOTH LARGE AND SMALL.

increase the number of SKUs even more as packages – and even the products they contain – are versioned to take advantage of these opportunities, which typically result in the production of numerous smaller lots instead of long runs of millions of the same packages.

The other factor affecting packaging production is increased supply chain efficiency, including more accurate forecasts and reporting in near real time. This allows manufacturers to produce products in a more just-in-time fashion with minimal risk, rather than relegating large quantities of product to warehouses where they risk inventories remaining for too long – or not being used at all.

For packaging converters, this means a stream of smaller jobs, each different from the next, that must be managed efficiently in order for the work to be profitable and for compressed customer timelines to be met.

For brand owners, the ability to accurately communicate packaging requirements to suppliers is critical. If there is confusion in this communication process, there is increased risk of error, waste and rework, to say nothing of extended timelines.

For packaging converters, the job submission process is where automation can start. By implementing prepress portals and web-to-print storefronts, packaging converters make it easier for their brand owner customers to submit jobs both large and small, and to leverage preflight capabilities that alert the brand owner that resources are missing or highlight other file errors that are more easily corrected prior to the job being sent. These solutions also play an important role in other parts of the packaging workflow.

Streamlining file submission and ensuring receipt of the most accurate files possible is Step One to a more automated packaging workflow. By submitting files online directly into the workflow, they are preflighted instantly, decreasing packaging cycle time and reducing the need for human intervention

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2. Automating Packaging Layout Creation

Once an accurate file is in hand, the next step is layout. Regardless of whether packaging will be printed using offset, flexo or digital print, layout is both critical and complex. It can be time consuming to do manually, taking as much as an hour or two, and can be error-prone. The target is a layout that makes optimal use of often-expensive substrates and delivers the package according to design intent.

One approach is to use step-and-repeat solution such as KODAK PANDORA. It allows ensuring optimum sheet utilization, enables identification of waste areas during die-cutting, has support for non-continuous color bars and features a new auto-ganging capability that recognizes the non-rectangular shapes that are common in packaging.

For a more automated approach, KODAK PRINERGY now includes a Packaging Layout Automation (PLA) module that uses the PANDORA engine, leverages PRINERGY Rules Based Automation (RBA) and can be driven from an MIS or selected other applications. It assesses the job and generates an optimal layout in five minutes or less, a significant time savings over the manual layout process. While operators can obviously check the PLA results, experience in the field shows that PLA-generated layouts are generally accepted and that this approach reduces the opportunity for expensive errors.

Savings here include an average of 1.5 to 2 hours per job and the cost savings associated with more efficient substrate usage. Total throughput is also positively affected with the ability to more easily produce ganged or combo jobs.

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3. Optimizing Color

Historically, spot color inks have been used in packaging production to achieve accurate brand colors. While some colors will still require special inks, improvements in ink, plate and imaging technologies have made it possible to achieve more than 90% of Pantone colors using process printing. About 70% of colors can be reliably achieved with a fixed CMYK palette, but more recently, forward-thinking converters have been adopting Extended Color Gamut printing with a fixed color palette of CMYK plus Orange, Green and Violet or Blue. Although this requires more cylinders on press, the process is capable of achieving more colors (more than 90% of Pantone colors) and a broader color gamut. A growing number of supplier to the industry are also touting Extended Color Gamut printing and bringing solutions to market to better support this process.

Printing process color with seven colors requires precise registration, which means that plates must be very stable and deliver higher print densities. The other aspect of adopting Extended Color Gamut Printing is converting spot colors to process colors in preparation for production. Although there are tools and plug-ins available for the Adobe Creative Suite to allow projects to be designed in this way, it is unrealistic over the near term to expect designers to make this leap. That means that conversion of spot colors should be able to be performed automatically during the prepress process. Solutions like KODAK's Spotless Solution enable operations to build and manage spot color recipes, including the ability to:

- Define and characterize print conditions for specific ink sets, presses and substrates.
- Build recipes to create spot colors from standard color libraries or custom client libraries.
- Set tolerances, or customized limits for acceptable delta E from target.
- Export recipes directly to a Kodak PRINERGY Workflow or utilize the recipes further upstream in the creative cycle.

PRINTING PROCESS COLOR WITH SEVEN COLORS REQUIRES PRECISE REGISTRATION, WHICH MEANS THAT PLATES MUST BE VERY STABLE AND DELIVER HIGHER PRINT DENSITIES.

Fixed color palette printing has many advantages for packaging converters and brand owners alike. These include:

- Reducing ink inventories and waste.
- Faster run up to color on press.
- Virtually no press downtime between jobs, since the same ink colors are used for all jobs.
- Ease of running combo or ganged jobs, again since the same ink colors are used for all jobs.

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All of these benefits add up to reduced cost and faster time to market without any sacrifice in quality – and there is no argument that these are the components of a successful packaging project.

While there are many benefits to switching to fixed color palette printing, there are also challenges in reconfiguring parts of the operation to accommodate this process. Suppliers like Kodak are ready, willing and able to provide consulting services to make this transition as seamless as possible and to ensure that packaging operations and their brand owner clients can quickly begin reaping those benefits.

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4. Task-Based Management of the Creative Workflow

Shepherding a complex packaging project through the production process can be challenging. Especially in an environment where brand owners are looking for variations to better target smaller segments, package designs must be translated to many different SKUs to accommodate packaging with designed to take advantage of special events or seasons, better align with geography and demographics and other customizations to make the packaging more relevant and to attract more attention on the shelf.

Without adequate project management, employees will work less efficiently and there is more risk of errors, print delays and rework, all of which adds up to missed deadlines and increased costs.

By taking advantage of a web-based creative workflow solution such as Kodak's INSITE Creative Workflow, brand owners, packaging converters and their creative partners can streamline and better control the creative workflow, maximizing efficiency and reducing waste. Creative projects can be centrally organized, from content creation and revisions through approvals and asset storage. Projects can be organized by task, giving team members access to their own individual dashboards so they can see at a glance what needs to be done and when. Automatic hand-offs and notifications ensure that nothing ever falls through the cracks and missed deadlines will be – almost – a thing of the past.

Ideally, a system like this handles all aspects of the creative process, from design through prepress, including even the most complex review and revision cycles. As an added benefit for converters, a system like this offers the opportunity to expand services to include package design management and builds client loyalty by providing a convenient work space accessible by all authorized users, adding new revenue streams to the mix. It increases customer confidence that the converter is investing in a state-of-the-art infrastructure that can serve their needs for the foreseeable future.
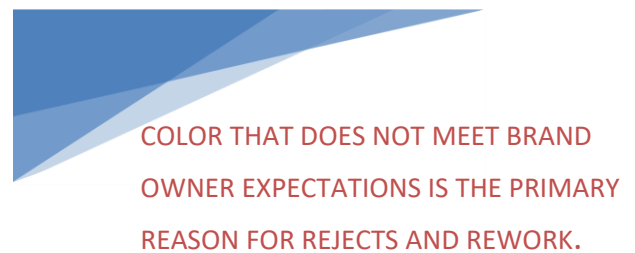
Ultimately, a creative workflow like this can shave days – even weeks – off of the packaging production process by enabling near-real-time communications even when teams are widely dispersed, faster review and revision cycles with reliable digital proofs that virtually eliminate the need for physical mock-ups, and task-oriented work spaces customized to the need of each team member. The value of such a creative workflow is enhanced even further when it is integrated into the overall workflow. In the case of INSITE Creative Workflow, automation is enabled through a direct connection to PRINERGY.

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5. Managing Color Relationships

We have already addressed the issue of color in the creative process, and how production can be optimized by converting files to Extended Color Gamut for up to 7-color process printing. But there is still more that needs to be done in the realm of color. An integrated color management solution is called for. In an ideal world, this should be a solution that can coordinate and optimize color performance for the entire print production system. It's an added bonus when these capabilities can be accessed from right inside the workflow solution. A Color Relationship Management solution should:

- Integrate color devices and tools in one platform, for simpler color setup, easier maintenance, and improved color consistency across the entire workflow.
- Store color tonal curves, DeviceLink profiles, ICC profiles and more in a common repository.
- Allow operators to choose color options based on print condition without the need for an in-depth understanding of color.
- Streamline profiling and calibration of color devices across the network.
- Automatically adjust color across the network if conditions – since as paper or inks – change based on a single measurement of the changed component.

COLOR THAT DOES NOT MEET BRAND OWNER EXPECTATIONS IS THE PRIMARY REASON FOR REJECTS AND REWORK.

Solutions such as ColorFlow from Kodak meet these requirements and are relatively easy to implement. Great color is arguably one of the most – if not the most – critical aspect of packaging production, and color that does not meet brand owner expectations is the primary reason for rejects and rework. It is important, then, to leave no color stone unturned when thinking about workflow automation.
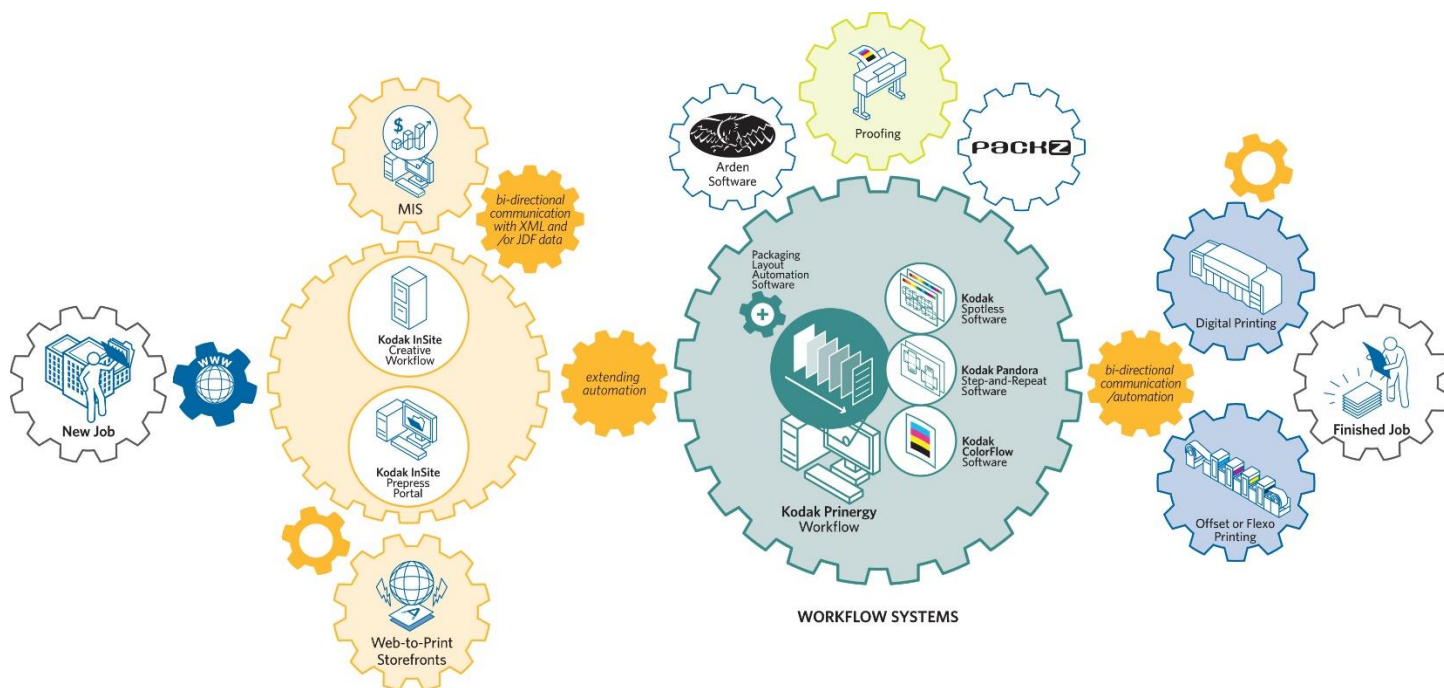
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Putting It All Together

As we stated earlier, workflow automation in packaging requires a systematic, holistic approach. Patching pieces and parts together will not deliver optimum results and can end up being costlier than remaining with manual processes.

Using the examples we have cited here, a KODAK PRINERGY-based packaging workflow ticks all the boxes of the 5 most important things to automate in a packaging workflow. Automating workflow in this way can deliver a significant reduction of days or even weeks in elapsed project duration, while delivering the high quality and cost efficiencies that brand owners demand.

The diagram below represents what a KODAK PRINERGY workflow would look like.

This white paper was sponsored by KODAK. To learn more about how to automate packaging production workflow, visit www.graphics.kodak.com.

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About Cary Sherburne

Cary Sherburne is a well-known author, journalist and marketing consultant whose practice is focused on marketing communications strategies for the printing and publishing industries. She was inducted into the Soderstrom Society in 2015, recognized as a 2009 Woman of Distinction by Output Links and was awarded the 2009 Thomas McMillan Award for excellence in journalism. Sherburne has written six books, including Digital Paths to Profit, published by NAPL; and most recently, No-Nonsense Innovation: Practical Strategies for Success, written with the late Bill Lowe, the Father of the IBM PC and available on Amazon. She has also ghost-written several books for busy executives, for whom she makes the process simple and efficient. In addition to her role as Senior Editor at WhatTheyThink.com, the leading online news and analysis resource for the printing and publishing industry, Sherburne occasionally writes for other printing trade magazines, as well as creating by-lined editorial for private clients.

Prior to launching her consulting practice in 2002, Ms. Sherburne was the Vice President of Marketing Communications and Outsourcing Solutions at IKON Office Solutions. In that capacity, she developed and implemented a branding campaign to build brand awareness for IKON in the marketplace as well as enhance employee pride in the organization, and was responsible for all internal and external communications, including trade shows and events, corporate newsletters, and industry and press relations. In the outsourcing role, she set strategic objectives and priorities for IKON's product and services portfolio in its Outsourcing businesses, including development of programs and sales support materials for that environment. Sherburne was a Director at InfoTrends, an internationally known firm specializing in market research and strategic consulting for the digital document and print on demand industry, before joining IKON, where she launched and managed the company's Document Outsourcing Consulting Service.

Her tenure in the printing and publishing industry has also included sales and marketing positions at Xerox Corporation, HP Indigo and PageFlex. Sherburne can be reached at Cary@WhatTheyThink.com. She resides full-time in the Dominican Republic.