CPG Company Leverages PantoneLIVE to Streamline Color Management

Challenge

One of the largest consumer packaged goods (CPG) companies in the world, with multiple brands and brand managers, had established a proprietary color library to manage its brand colors. The company was looking for a more standardized method of creating, communicating and managing brand colors.

Solution

The company partnered with X-Rite Pantone to map its color library to Pantone colors and to rationalize that color set, eliminating colors that were determined to be very close to each other, only adding new colors when there was not a Pantone color that matched a target brand color.

Results

The company reduced its color library from about 2,090 colors to 1,035. All but 100 of these colors were already in the Pantone book; of these 100 colors, 60 were added to the Pantone library, while 40 remained proprietary to the CPG company for various reasons. This resulted in a faster, more cost-effective means of choosing and communicating color across the company's broad base of designers, agencies, brand managers and printers/ packaging converters.

Streamlining Management of Brand Colors

"We came to realize that with our proprietary color library, we were essentially reinventing the work that Pantone has been doing for more than 50 years to standardize the specification and communication of color," a company spokesperson said. "It seemed that every time we had a new project, we were inventing a new color, and that was creating uncertainty across the global supply chain."

This is a very common problem for CPG companies and it causes a great deal of additional cost while extending the time it takes to get products to market. And the problem isn't limited to the creative process. Our CPG spokesperson explains that each time a new color was requested, its primary ink supplier would create the formulation, go through an approval process, and test it for fitness for use. For example, an ink might need to be safe near a baby's skin or in direct food contact. This was an expensive and time-consuming process that had the ability to increase product development costs and delay time to market. It was also difficult to communicate these proprietary colors across the production supply chain. "We had an e-store that allowed our printers and packaging converters to request physical samples," he said, "allowing them to ensure they met customer expectations. It was costing us about $25 for each of these samples, a significant annual amount when multiplied by all of the times these samples were requested each year. And while our ink supplier does a great job of producing these physical drawdowns, there could be slight variances from sample to sample, increasing the risk of variability from printer to printer. We wanted to eliminate the need for these custom drawdowns and improve overall accuracy across the entire supply chain."

The company decided to partner with X-Rite Pantone to eliminate these issues and streamline the development, communication and management of brand colors.

Rationalizing the Color Library

Rationalization is a service that analyzes a color library and consolidates colors that have variations so small they are effectively the same. The smaller set of colors is then mapped to standard Pantone® Matching System (PMS) colors and also to PantoneLIVE dependent references. In case there are brand colors that do not map to PMS colors, these custom colors can be added to the PantoneLIVE library for a particular brand.

"The first step we took in working with this company was to use the company's physical color libraries, some 2,090 colors with physical drawdowns contained in binders, to gather digital values for each color," said Brian Ashe, X-Rite Pantone's Solution Architect who was assigned to the project. "We then mapped each of those spectral values to Pantone colors. The client's requirement was a variation of no more than 2 Delta E. In this first step, we were able to map their colors to Pantone colors using these digital values with the result of reducing the number of colors by 33%. For example, in one case there were 28 shades of white that were almost identical that different brand owners or designers had created in lieu of seeking out the drawdown binders and trying to find a close color, a time-consuming process. It was just easier to name a new color."

In mapping custom colors to Pantone colors, there were three possible outcomes:

1. The custom color and Pantone color were a good match; substitution of the Pantone color was approved.
2. There was no Pantone color that matched the custom color within the allowable Delta E and the brand manager did not want to change an equity color. In those cases, of which there were 100, a new Pantone color was created; 60 of these were imported into the Pantone Library to become standard Pantone colors, while 40 remained proprietary to the company.
3. The custom color and Pantone color did not match, but decision makers preferred the Pantone color, and substitution of the Pantone color was approved.

Colors were evaluated by comparing printed samples for all colors, the company's color books and the Pantone guides, under controlled lighting conditions.

In addition to mapping and rationalizing colors for a reduced library size, the company took the additional step of making PantoneLIVE available to all stakeholders who needed access to its colors. PantoneLIVE is a cloud-based portal designed to manage and deploy packaging color assets across multiple locations or users. It consists of Master Standards, which are the spectral values, or DNA, of a given color. PantoneLIVE takes the color specification to another level with a series of Dependent Standards that allow users to verify whether a color they choose is actually achievable on the target substrate with the printing technology and ink system that will be used. In many cases, the color specification will be different than the Master Standard and require an adjustment to the ink formulation to accommodate the substrate. For example, a color will look different when printed on brown Kraft board than it will on a bright white carton board.

Designers were also given access to PantoneLIVE Visualizer, an app that allows them to virtually see how a chosen color will appear on different substrates and under different lighting conditions.

Engaging the Print Community

With the selection and specification of colors streamlined, the company next turned its attention to better and more accurate communication of color requirements to its broad base of printers and converters. "In the past, printers and converters that wanted exact confirmation of color requirements had to go through the time-consuming and expensive (for the company) process of requesting physical drawdowns," the company spokesperson remarked. "We wanted to make the color communication process digital to speed things up and increase overall color consistency. One of the reasons we knew we needed to take action was that a very high percentage of production exceeded our tolerances, and by moving the library to Pantone references as well as communicating color digitally via PantoneLIVE, we felt we could significantly improve this performance."

In a pilot project, suppliers to the company provided samples from a typical run. "We found some significant issues," Ashe reported. "For example, on one toothpaste tube, we found a range between a Delta E of 2 and 12, with the average at a Delta E of 5 and a standard deviation of Delta E 2. This was clearly outside of specified tolerancing."

By simply providing suppliers with a digital reference against which they could measure, product ranged from 0.5 Delta E to 2 Delta E, with averages at about 0.98 Delta E and a standard deviation of 0.2 Delta E. "This was a huge quality improvement by a factor of 10," Ashe added.

Ashe pointed out that printers were still taking advantage of physical Pantone references, but stated that the values to be measured against were digital. "Physical and digital references are both an important part of the process," he said. "They are complementary to each other. The big benefit of this program was that printers and packaging converters could use standard Pantone guides as physical references when they needed them, eliminating the need for custom physical drawdowns to be produced. Plus the 40 custom colors was a small enough number that a full palette of physical swatches could easily be produced and distributed."

Standard Operating Procedures

After a successful pilot, the company began rolling out this process across its global supply chain. "As a result," concluded the company spokesperson, "we now have a set of standard operating procedures, are leveraging the color expertise resident at X-Rite Pantone, and have seen our quality dramatically improve. This has helped improve time to market and reduce overall costs. And as Pantone adds more colors to its libraries, we will have those at our disposal as well as still have the ability to create custom colors if we need them. This has made a significant difference in our overall quality and efficiency that we likely could not have accomplished without their assistance."