

COUNTING COLORS

Automated tool dramatically improves global retailer's planning accuracy — and its bottom line

HIGHLIGHTS

- A report that took 3-5 days for team members to generate now takes 5 minutes
- Automated process spares equivalent of 10 full-time jobs
- Tool improves job satisfaction among analysts
- Reporting accuracy to improve from 65% to 95%
- Project expected to return more than 15 times investment in the first 3 years of use

“eAlchemy really understands retail — and that was a big deal for us. There are a lot of developers who write code, but there aren't many that know the retail business like they do.”

— Global apparel director of product management

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There's a running joke in our office: “Counting is hard.” Our eAlchemy team members have written hundreds of thousands of lines of code in our 10 years. Code and formulas that execute all kinds of equations and even predict outcomes based on complex and dynamic data sets. Counting, in that context, doesn't seem hard.

But for a global Fortune 500 retail giant with several brands, dozens of product lines, and thousands of apparel items for sale in hundreds of countries, counting the number of products it sells globally can be complicated.

CHALLENGE

As a crucial first step in its merchandise planning process, eAlchemy's client, one of the world's largest retail apparel brands, relies on knowing how many different products will be available in the markets it serves at any time for up to 2 years in advance.

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brands, relies on knowing how many different products will be available in the markets it serves at any time for up to 2 years in advance.

From what the company calls a CC (color coding) Count report, decisions are made to manufacture millions of units of thousands of merchandise variations, or SKUs, that will appear on store shelves 12-24 months later. Those decisions have wide-ranging implications throughout the supply chain — especially if decisions are made from inaccurate information.

“Every single piece of the supply chain has a friction point when your forecasts aren’t accurate,” said the director of product management, inventory management, who commissioned the project. “When your numbers aren’t right, you end up blowing your margin.”

The retail giant used to have variations of CC Count tools being used by different groups. And the different tools — combined with different approaches to manually inputting some information — meant that counting was being done differently. The end result was that the official count was only accurate 65-70% of the time. And then planning decisions made with inaccurate decisions would always lead to inventory surpluses for some apparel and shortages in others.

SOLUTION

eAlchemy has been working with this particular client for 10 years. In many cases, our team had been maintaining mature tools to help decision makers manage different aspects of its supply chain. That included the antiquated versions of the company’s CC Count tools.

Those original tools were largely based on manually compiled spreadsheets with built-in logic. Users would pull information from different places and enter it, then run these large reports on local computers, causing other performance problems.

With the new tool, we needed to take the processing burden off of the local file. We also wanted to take a platform approach to standardize CC Count across different groups. Scalability was also crucial — our client wanted the platform to be able to scale as the company continued to grow and diversify its product lines.

We started the project, like many, getting alignment and requirements among stakeholders across our

client’s different groups. One of the biggest challenges was reconciling two competing requirements: providing real-time data and a reporting system that lived on a different server than the data. We knew performance would take a hit if we did any of the logic or report layout in .NET, so we made the decision to architect a solution that offloaded the processing and formatting to a SQL Server. Over the next 45 days, we built a proof of concept that would drive the calculations of the new tool and integrate with our client’s planning data. Then we built the front-end web interface using ASP.NET, which allowed team members to easily set up and generate reports.

Based on rules entered into Excel by team members, the software would then churn out a recommended production plan in the form of an editable report.

What once took the team a week, now took mere hours. Previously laborious “what-if” planning became quick and easy. With a reliable, automated process in place, team members could spend their valuable time improving and adding to the information about cost drivers.

RESULTS

The project results included:

- A CC Count report that used to take 3-5 days for one person to build and run can now be completed in 5 minutes.
- Between our clients’ different groups, the estimated time savings that the automated report saves is the equivalent of more than 10 full-time jobs.
- Business analysts who were burdened with tedious report building could invest more time in high-value analysis. Our client contact said the tool actually improved employee satisfaction, and helped the company retain key talent.
- The new automated CC Count process is expected to improve reporting accuracy from 65% to 95% within two years.
- The methodology for how to count products and make related planning decisions was standardized across brands and regional groups.
- This project is expected to return more than 15 times the invested value in the first three years of use.