

CASE STUDY: COX INDUSTRIES

Cox Industries Discovers Hidden Opportunity
Values & Nixes Home Depot

Cox Wood. Smart.

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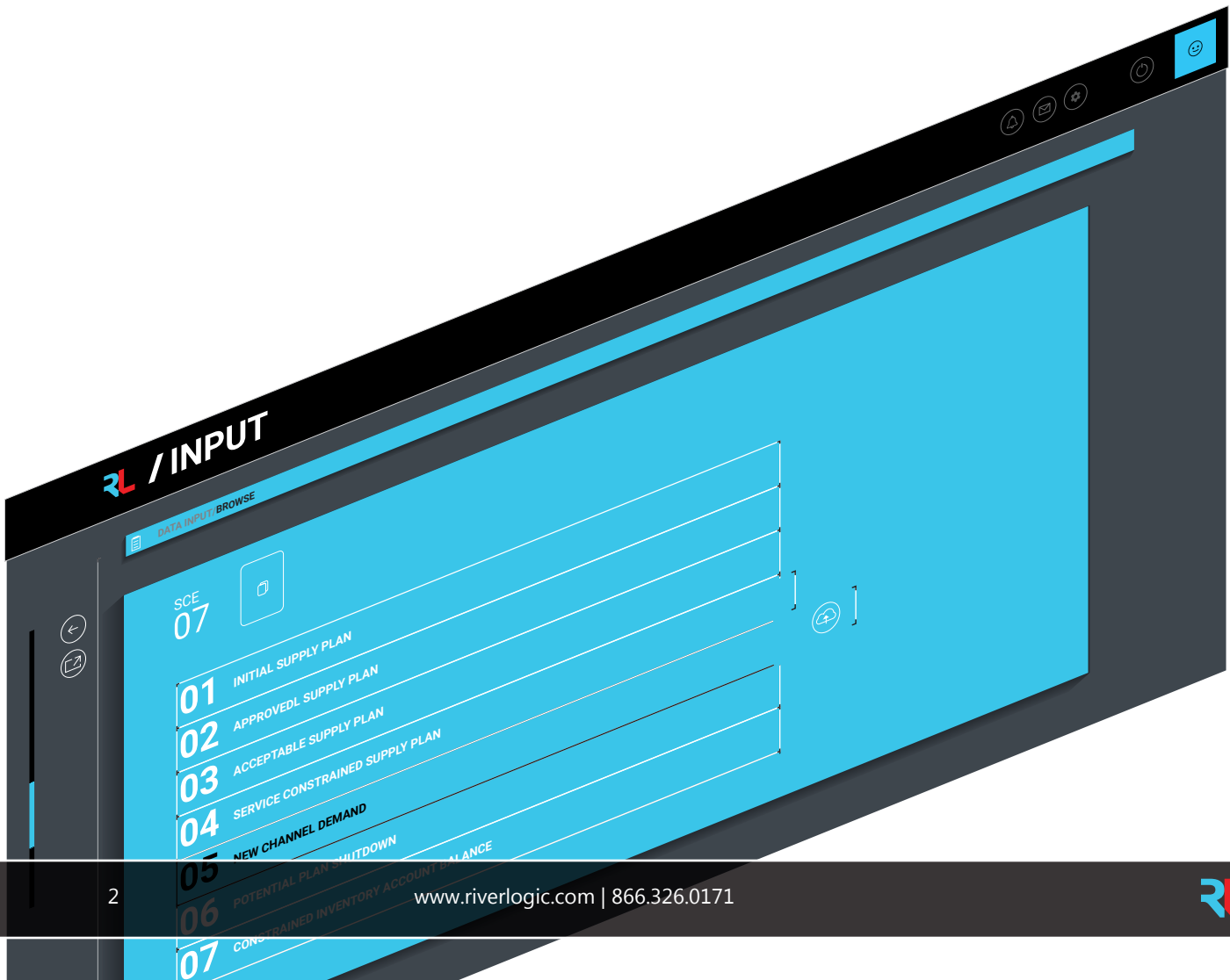
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OVERVIEW

The Cox name is synonymous with quality. Since 1954, Cox Industries has been an innovation leader in wood product manufacturing for the residential, utility, and construction markets. Headquartered in Orangeburg, South Carolina, the family-owned company produces a wide range of treated wood solutions via partnerships with chemical suppliers. Cox has 14 manufacturing facilities and more than two dozen distribution yards, which service customers throughout the United States.

Over the years, Cox has garnered accolades and earned numerous awards, including, the Silver Crescent Award for Manufacturing Excellence and the US Small Business Administration's SC Family-Owned Business of the Year for 2013. Cox has also been recognized for their Excellence in Corporate Responsibility by the South Carolina Manufacturers Alliance (SCMA).



FAMILY-OWNED
SINCE 1954



HEADQUARTERED IN
ORANGEBURG, SOUTH CAROLINA



INNOVATION LEADER IN WOOD
PRODUCT MANUFACTURING



Matt Yaun
Cox Industries
Chief Administration Officer

Matt Yaun, Cox Industries Chief Administration Officer, oversees all enterprise-wide functions and has been with the company for about nine years — the first five years being involved in sales and marketing. Yaun is the executive in charge of Cox's Integrated Business Planning (IBP) initiative.



ISSUES

Within the pressure-treated wood industry, Yaun recognizes these top three issues:


- 1 Agility to effectively deal with change; including issues such as scaling highly fixed-cost businesses, and managing an aging labor force with a high new hire turnover rate.
- 2 Identifying opportunities to increase performance; such as optimizing the manufacturing footprint, product/customer mix and capital expense allocations.
- 3 The increase in regulations, which is absolutely staggering, and one of the reasons Yaun has his role with Cox. The amount of regulation doesn't translate to any added value.



YAUN STATED THE FOLLOWING ON HOW THESE CHALLENGES AFFECT COX INDUSTRIES, AND THE WOOD MANUFACTURING INDUSTRY AS A WHOLE:

"We've been talking about this for years, but everyone has to be able to deal with change. The resounding theme these days is the speed of change. Whether that's regulations or business environment – I don't think anyone would have predicted the rate of collapse of the housing market and the speed at which it did so. Luckily, before that we had already started on 10%, 20% and even 50% revenue reduction plans. Within a matter of weeks of those estimations, we were executing on them."

TO REMAIN AN AGILE ORGANIZATION WHEN THE SPEED OF CHANGE CONTINUES TO ACCELERATE, COMPANIES MUST PUSH THEMSELVES AHEAD OF THE CURVE AND MAKE BOTH QUICK AND INFORMED DECISIONS.

“ LUCKILY, BEFORE THAT WE HAD ALREADY STARTED ON 10%, 20% AND EVEN 50% REVENUE REDUCTION PLANS. WITHIN A MATTER OF WEEKS OF OSE ESTIMATIONS, WE WERE EXECUTING ON THEM. ”

SOLUTION

Cox Industries focuses on innovation, and technology is a huge part of that commitment. Technology drives their innovative products, while this innovation opens possibilities for new technologies. It's this repeating cycle of constant opportunity that has made Cox a leader within their industry.

“We’ve experienced a period of pretty rapid growth in the last five or six years, and we’ve had to embrace technology quite dramatically. We came to the realization that we just really didn’t have good data — we couldn’t trust it and it just wasn’t valid. If you don’t believe your speedometer, it’s kind of hard to tell how fast you’re going. So, when we started looking at River Logic, we leveraged the underlying business model to identify which data was more important to fix.”

“River Logic’s optimization and modeling capabilities really allow us to do that prescriptive work and what-if analysis. For me, predictive is pretty basic. When we talk predictive, we’re taking historic data and applying some sort of macro or best case rule on top.”

AT COX INDUSTRIES, RIVER LOGIC SOLUTION SUPPORTS END-TO-END PLANNING, INCLUDING FACTORS SUCH AS:



PROCUREMENT



INVENTORY



LOGISTICS



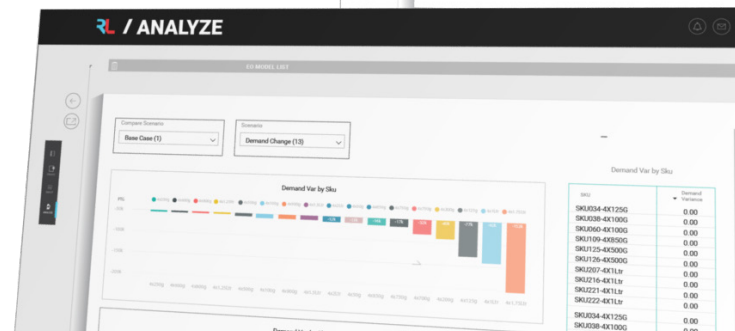
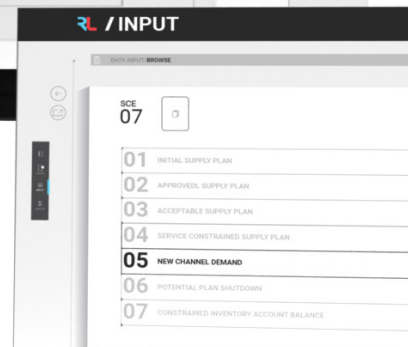
CAPACITY



SOURCING



DEMAND & SUPPLY



Furthermore, the technology drives the financial planning and forecasting process, as financials are deeply embedded in the model. Beyond these capabilities, Cox also uses River Logic's solution to evaluate customer bids, reactions to unforeseen events and optimize capital allocation decisions.

"Now, prescriptive is trying to make judgment calls based on trend changes," comments Yaun. "There's a lot of talking to your customer base and understanding the market and market analytics. That's where we use the what-ifs in River Logic's solution. So, what if our product mix or customers change? What does that do to our margins or volume requirements?"

// RIVER LOGIC DRIVES THE FINANCIAL PLANNING AND FORECASTING PROCESS, AS FINANCIALS ARE DEEPLY EMBEDDED IN THE MODEL. //

RESULTS

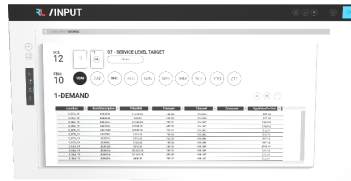


Leveraging an integrated financial and operational model, Cox Industries has dramatically improved accuracy and agility.

Yaun states, “We’re pretty darn good now. For certain given volumes and certain given market conditions, we can predict within 5% of what we’ll make. We’ve really shifted to where, when someone sees something in our metrics or data that doesn’t make sense, an alarm bells go off and people ask questions quickly. That visibility — visibility on the data throughout the organization — has really helped us avoid the big problems.”

“We’ve always done some peeling, but we used to peel about 25% and then source the rest,” notes Yaun. “As we started using River Logic’s solution, we performed analytics on statistical yields and standard distribution of a ton of particularly ‘barky’ logs from a specific vendor. We realized that, in certain areas, we could peel specific profiles way cheaper than in other areas.”

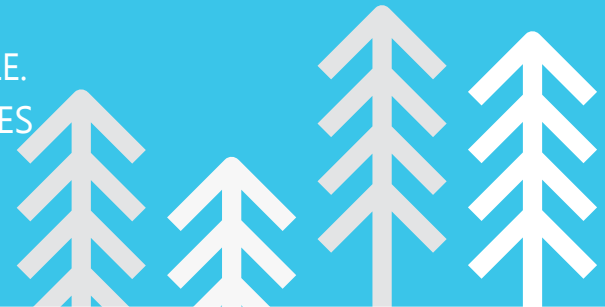
“What we came to realize is that we needed to peel,” said Yaun. “Now, we are peeling 81% in house. That move from a 20/80 to 80/20 split has made an incredible difference in the profitability of that business unit. We’ve increased profitability in our industrial business by over 2% of revenue – all from peeling.”



“ IN THE INITIAL MODELS WE’VE RUN... WE’VE IDENTIFIED A 30% INCREASE IN PROFITABILITY. ”

“ WE’VE INCREASED PROFITABILITY IN OUR INDUSTRIAL BUSINESS BY OVER 2% OF REVENUE – ALL FROM PEELING. ”

YAUN CITES LOG PEELER TECHNOLOGY AS AN EXAMPLE. THE COMPANY OWNS THEIR OWN PEELERS, PURCHASES LOGS FROM VENDORS AND THEN BRINGS THEM IN FOR PEELING.



AS IT TURNS OUT, THERE WAS STILL MORE OPPORTUNITY WITH THE PEELERS.

“As we have grown, we began to see more constraints across the business and especially on peeling and drying,” Yaun continued. “The River Logic technology provides further value here, as it gives us an Opportunity Value (defined as a fully-constrained marginal value) for the next hour of production at that particular bottleneck.”

“Recently, as we ran the system, bar-none one of the biggest opportunity values that popped out was peeling. We thought we had a mistake, so we went back and did the analytics on the yields to be sure we understood everything. It said another hour of peeling is worth \$1,047 net profit to the company.

“It also showed us the point at which we would run out of drying capacity, based on different versions of expected product mix. That was a great ‘ah-ha’ moment,” stated Yaun.

“After that, the company bought two more peelers in geographic regions that maximized drying, freight, and sourcing constraints. It entirely changed the way the company allocates capital, and helped key decision-makers understand the value that existing processes could create.

“Opportunity Values help us define where the next lean project is going to be,” comments Yaun. “When that complex analysis tells you something that you don’t believe, that’s usually one of the best lessons. Then, you can go disprove it or find out why it really is true. That has been extremely valuable to us, from both a margin and profit perspective.”

RESULTS



**MAXIMIZED CAPITAL
ALLOCATION**



**INCREASED PROFITABILITY IN
OUR INDUSTRIAL BUSINESS BY
OVER 2% OF NET REVENUE**



**IDENTIFIED OPPORTUNITY TO
MAKE AN ADDITIONAL \$1,047
OF NET PROFIT PER HOUR**

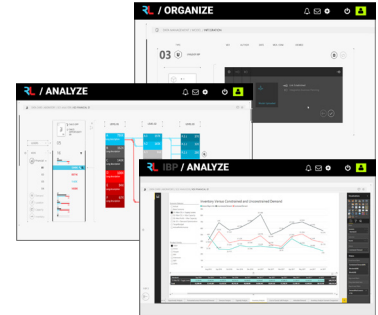
ABOUT RIVER LOGIC

River Logic has been a global innovator in prescriptive analytics (optimization) since 2000. Its platform — designed for business users — enables enterprise-wide optimization, collaborative planning and performance management, all delivered through a revolutionary user experience. By understanding how to best utilize cross-functional resources and manage trade-offs, companies can make more impactful decisions.

River Logic goes to market primarily through partner organizations like PWC, Barkawi, Grant Thornton and CGI, helping them develop high-value applications that monetize their IP. Recent clients include Unilever, BHP Billiton, the FAA, Jewish General Hospital, Peabody, the Russian Post and Valero. Typical client value-add ranges from 10% cost reduction to 2-5% of sales in additional profit.

GET A DEMO OF RIVER LOGIC'S

PRESCRIPTIVE **ANALYTICS PLATFORM**



**INTEGRATED MODEL
OPTIMIZED DECISIONS
PRESCRIBED EXECUTION**

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