



CASE STUDY

# COASTAL AUTOMOTIVE

Coastal Automotive is a privately-owned company offering innovative engineered material technologies for safety applications in automotive, commercial, and motorsport products. In addition to its manufacturing operations, Coastal Automotive offers a full complement of services including research and development, product and process engineering, tooling and technical support.

**Industry:**  
Automotive

**Location:**  
Rochester Hills, MI

## Results



Streamlined inventory counting from two days to less than one day



Reduced scrap rate by identifying and correcting the least-efficient production runs



Streamlined compliance audits from two days to just hours



Increased shop floor productivity and reduced redundant work



With Plex, we load all jobs centrally and they are visible to each work center, so the next available operator can take the job and everyone else knows to skip it. That has increased our productivity and prevented redundant work.

**Jeff Bender**

Materials Manager, Coastal Automotive

## Business Challenges

**1.** Rapidly expanding company had outgrown its point inventory system.

**2.** Inventory traceability was only possible through spreadsheets.

**3.** Jobs were managed manually in spreadsheets that were not easily visible to all teams.

**4.** Compliance audits required too much manual preparation and verbal explanation.



**The company works tirelessly to anticipate and address innovation gaps in the automotive industry, with a focus on high-performance energy solutions used by the world's biggest OEMs.**

The Coastal Automotive team is on the front lines of automotive safety. Case-in-point: the team supplies to virtually every automaker across North America, and Coastal Automotive is NASCAR's premier energy management provider. Its IMPAXX™ foam is used to provide stable and consistent impact response in vehicles while lowering development costs and capital investments. And since 2008, the material has been incorporated into NASCAR's Car of Tomorrow, beating out nearly 200 competing materials. Add to this three GM Supplier of the Year Awards and three GM Supplier Quality Excellence Awards since 2013, along with several other regional designations. But even with this incredible success, Coastal Automotive continues to push toward innovation – not only in what it provides to customers but also in the ways that it manages its business to scale for growth.

For years after its founding in 2006, Rochester Hills, Mich.-based Coastal Automotive kept track of its growing business via spreadsheets. The company then shifted to Fishbowl, an inventory management system, to get a better handle on orders and shipping. When that system became stretched to its limits, Coastal Automotive began looking for a true ERP platform.

“We needed a system that would enable us to not only manage our business processes but also document and control our plant floor,” recalls Linda Paine, Program Manager, Coastal Automotive. “Up until then, our only ‘traceability’ was through spreadsheets. With the way our company was growing, we needed to start doing bills of materials and process routing in a disciplined manner, controlled by a sophisticated software platform.”



A typical audit takes two days, but our process is simpler with Plex and we were able to condense that to just hours. An auditor can walk through our facility and see how individual operators log in to Plex to open a job, put in scrap, pack out boxes, and so on.

**Linda Paine**

Program Manager, Coastal Automotive

## Up-front Training Leads to Streamlined Go-live and Quick Productivity Increases

Coastal Automotive evaluated solutions and determined that Plex would be the best fit for its needs. The company anticipated a smooth implementation process in the cloud—and wasn't disappointed.

“Our Plex trainer actually came and sat with us in the conference room to walk us through all the different applications,” says Paine. “And if he couldn't be there live, we'd do it by phone call and record the call so we could go back and refer to the information. He made sure we really understood what we were implementing so that we could get the greatest possible value from it.”

With the help of the Plex Customer Success and Support (CSS) implementation team, Coastal Automotive practiced various business processes in Plex on a test database before going live. By the time the company's implementation was complete and Coastal Automotive was up and running, its 30 full-time employees and many part-time workers felt fully comfortable on the platform.

“Getting an idea of how Plex would work ahead of time was key to the success of our implementation,” Paine confirms. “We were able to do simple things such as print labels and pretend to send shipments, without interfering with our actual production data. Any time we found a hiccup in a process, we could take the time to fix it and know that we weren't actually keeping a truck waiting.”

Plex made a clear and near immediate impact on Coastal Automotive's shop floor operations. As soon as the company went live with Plex, machine operators immediately had a much easier time managing and dispatching jobs and tasks.

"Before Plex, we were managing daily jobs in a spreadsheet," notes Jeff Bender, Materials Manager, Coastal Automotive. "When you're running three shifts, it can be challenging to communicate the status of all those jobs at one time. There was always the risk of someone duplicating a job that had just been finished. With Plex, we load all jobs centrally and they are visible to each work center, so the next available operator can take the job and everyone else knows to skip it. That has increased our productivity and prevented redundant work."

## A Mobile Workforce Is a Productive Workforce

By deploying Plex, Coastal Automotive has made the leap from spreadsheets directly to mobile devices. The production team records consumption of raw materials and inventory transactions on four Plex workstations that connect wirelessly to the company's network. The shipping team uses smart scanners that log onto Plex through a mobile app, enabling them to record information by scanning labels.

"We had no trouble getting people excited about Plex because it means they're not tethered to individual work carts anymore," Bender remarks. "When you put a wireless smart scanner in their hands, they can be much more mobile and get jobs done more quickly as inventory moves through our facilities."





Before Plex, we were often in danger of overestimating our inventory and short-shipping a customer, or underestimating inventory and building more product unnecessarily. Getting accurate inventory has had a huge effect on our bottom line.

**Jeff Bender**

Materials Manager, Coastal Automotive

The benefits of a truly mobile ERP system extend beyond the production floor. Coastal Automotive's staff can monitor processes from home or on the road.

“Other systems I've used require you to set up a VPN if you want to log on remotely,” Bender explains. “With Plex, I can sign on with my phone and do anything from anywhere. If I'm at our facility but don't have my laptop, I can scan a barcode with my phone and see what's going on with it. And the reporting capabilities within Plex are definitely much stronger than what I've seen in other platforms.”

## Tighter Controls Result in a Perfect Audit Score

Like every automotive manufacturer, Coastal Automotive must take great care to stay in compliance with regulatory requirements. To prepare for an audit, the company previously had to perform extensive manual calculations and make supervisors available to give explanations to auditors. With Plex, the information auditors need is right on the screen—which recently helped the company earn a perfect score on an International Automotive Task Force (IATF) audit.

“Plex's document control system was instrumental in helping us get a perfect IATF score,” says Bender. “The way our inventory controls are linked to controls within Plex is what made it easy for us to qualify. On the materials side, Plex gives us the traceability we need for all of our lots. We've also gained much better control over our FIFO policy in our finished goods warehouse.”



**Simplifying information access and visibility also led to a secondary benefit to the audit process: a significantly reduced timeline.**

“A typical audit takes two days, but our process is simpler with Plex and we were able to condense that to just hours,” adds Paine. “An auditor can walk through our facility and see how individual operators log in to Plex to open a job, put in scrap, pack out boxes, and so on. Our operators can even trace a process back to the very beginning to show that they’re using the right graded material.”

## Savings from Scrap Reduction Get Passed Along to Customers

Coastal Automotive seeks to stay at the top of its game without increasing its overhead costs. After establishing tighter inventory control and streamlining processes with Plex, the company now knows exactly where parts are at all times.

“Plex enables me to do cycle counts on our materials and to track what’s in finished inventory so that we know exactly what we need to build to fulfill customer orders,” says Bender. “Before Plex, we were often in danger of overestimating our inventory and short-shipping a customer or underestimating inventory and building more product unnecessarily. Getting accurate inventory has had a huge effect on our bottom line.”

Barcode scanning into Plex not only streamlines the shipping process but also helps staff complete more accurate inventory counts in less time. Rather than relying on spreadsheets and manual calculations, Coastal Automotive can now trust the results of scanning.

Moving to Plex has also enabled Coastal Automotive's decision-makers to guide the company more effectively by responding more quickly to issues. The company's operational team used Plex daily to graph the production runs that were creating the highest amounts of scrap. In many cases, production teams addressed these problems in less than 24 hours, resulting in much more efficient runs.

"At a time when our scrap problem was almost out of control, being able to zero in on our least-efficient runs and correct them right away was huge," Bender says.

"Understanding more about our process has shaped strategy on future programs and how we're pricing them," adds Ryan Simmons, Product Marketing Manager, Coastal Automotive.

Running its business on Plex has enabled Coastal Automotive to transform its processes and tighten its controls. But the company believes it has only scratched the surface of what's possible.

**"Next up, we're hoping to enhance our automated labeling process by getting our labeling system to talk to Plex," Bender concludes. "That's just one process, but it underscores one of the biggest advantages of choosing a cloud system. As we work towards measuring and enhancing more and more of our shop floor processes, it will be essential to have accurate real-time data in one hub. That hub for us is Plex."**

## ABOUT PLEX

Plex Systems, Inc., a Rockwell Automation company, is the leader in cloud-delivered smart manufacturing solutions, empowering the world's manufacturers to make awesome products. Our platform gives manufacturers the ability to connect, automate, track and analyze every aspect of their business to drive transformation. The Plex Smart

Manufacturing Platform includes solutions for manufacturing execution (MES), ERP, quality, supply chain planning and management, Industrial IoT and analytics to connect people, systems, machines, and supply chains, enabling them to lead with precision, efficiency, and agility.

Learn more at [www.plex.com](http://www.plex.com)