

## IEC Electronics Defuses Supply Chain Risks and Boosts Operational Efficiency to Enhance Competitive Edge

With an unrelenting focus on product quality and operational excellence, IEC Electronics Corporation is a proven leader in the electronic manufacturing services (EMS) industry. This U.S.-based company manufactures high reliability, complex circuit boards, system level assemblies, custom cable and wire harness assemblies, precision metal products, and provides advanced research and testing services for a host of advanced technology companies, primarily in the military and aerospace, medical, industrial, and communications sectors. IEC has received accolades from major customers and earned a spot – three times – on the Forbes list of Best Small Companies in America.<sup>1</sup>

A key factor in IEC's success has been its extraordinarily effective approach to supply chain risk management. In this high-performance manufacturing sector, the shortfall of a single manufacturing component, or even the need for last-minute sourcing, can turn into a six-figure oversight. In fact, that happened once at IEC. Since then, however, the company has effectively addressed this critical challenge – ensuring delivery of products to customers on time and on budget, as well as expediting quotes for new business – by getting a tight handle on its bill of materials (BOM), comprising tens of thousands of components. At the same time, IEC has also helped its worldwide customer base ensure full compliance with numerous regulatory requirements, including REACH, RoHS and conflict minerals requirements.

"We are constantly driving efficiency throughout our facility, from the manufacturing line to the back office," said Tiger Biletnikoff, Director of Supply Chain at IEC. "Across the board, we're looking at reducing cycle time, improving accuracy and increasing output."

### Challenge

- ▶ Mitigate risk, ensure compliance and increase accuracy for the company and its customers
- ▶ Control and reduce operating costs through technology and workflow innovations
- ▶ Heighten efficiency within supply chain quoting process, product lifecycle management, and compliance and standards

### Solution

IHS Technology with  
IHS BOM Manager Professional, IHS CAPS  
Universe, IHS PCNAlert, and IHS Compliance  
Services with Conflict Mineral Solution

### Results

- ▶ Leveraged technology/innovations for a strong return on investment – e.g. 1 staffer can now do the work of at least 5 full-time employees
- ▶ Reduced turnaround on RFP deliverables from 1-2 weeks down to the 72-hour target – in some cases literally down to minutes
- ▶ Expedited conflict minerals compliance by 2 months, using 50% less resources and more than doubling the accuracy rate
- ▶ Streamlined work processes across 6 of the company's major departments
- ▶ Established a new revenue stream for engineering redesign services
- ▶ Gave customers confidence by providing an "insurance policy" that enabled them to plan for end-of-life issues for their products

### Automating Manual Work Processes

In recent years, IEC has gained significant traction in pursuit of its strategic goals by overhauling manual processes for product lifecycle management, supply chain quoting, and meeting compliance requirements. The company previously relied on distributors to email information regarding changes in part availability.

IEC now automates its product life cycle management by linking information, people, and processes with IHS BOM Manager Professional. Instead of waiting for distributor notices, now the company proactively monitors the life cycle of component parts used in original designs and those from the bill of materials of the company's customers. In turn, IEC can spot availability issues well ahead of time.

The company has also implemented IHS CAPS Universe, putting component pricing from more than 2,000 manufacturers at its purchasing team's fingertips. When responding to RFPs, the staff can now locate prices within minutes, as opposed to days or weeks, helping the company deliver on its target of a 72-hour turnaround – down from one to two weeks. IEC's Celene Kalivoda, Sourcing Specialist and Achilles Tziazas, Applications Systems Manager, are key players integrating the IHS tools into the company's IT systems and Supply Chain processes to drive cross-functional excellence and customer integration.

*Continued on next page >*

# IEC Boosts Efficiency, Builds Competitive Advantage

*Continued from previous page*

In all, IEC has leveraged IHS systems to streamline workflow across six departments, including Purchasing, Quality, Engineering, Commercial Quote, Program Management and the Document Center.

"The more we use IHS solutions, the more productive each person on the team is," Biletnikoff said. "That alone is driving down costs for us."

## Gaining New Competitive Advantages

IEC's Dynamic Research and Testing Laboratories (DRTL) is ISO 17025 certified and an IPC approved Validation Services Test Laboratory, led by Mark Northrup, VP of Advanced Technical Operations & Strategy, Rachel Garcia, Laboratory Manager and the DRTL Team using the IHS tools extensively, and specialize in failure analysis, DPA, component risk mitigation, material and product qualifications for the military, medical, and industrial markets.

With IHS PCNalert, the IEC team automatically receives product change notices (PCN) from component manufacturers, including end of life, obsolescence, and manufacturing and material changes – giving decision-makers insight into production life status and predicted life.

"The risk of missing a distributor's notice of an end-of-life issue for a component, and the resulting impact of last-minute ordering, is too great," said Ken Palmeri, Supplier Quality Manager at IEC. "IHS data is more accurate and provides more information than any other vendor. It serves as our competitive advantage, providing a sort of insurance policy for our customers."

Ken and Rosa Tripi, Senior Buyer are key members of the Conflict Minerals Team at IEC, and recall the labor & time intensive efforts of the 2014 reporting period. They agree 2015 is an unequivocal success. With U.S. enactment of the Dodd-Frank Act, IEC needed full knowledge of the source of materials in its components. For the first year of conflict minerals compliance reporting, the company used another tool and heavy staff resources to investigate sources for every supplier. In the second year, IEC turned to IHS Compliance Services and its Conflict Mineral Solution for templates, support in reaching out to suppliers, a methodology for engaging suppliers, tools to track responses and escalations, and a status dashboard. With its new process for conflict minerals compliance, IEC noticed a major difference one year to the next. "This year, we're confident that we are two months ahead of where we were last year using half the resources and the accuracy rate of the information is more than double," Biletnikoff said.

By reducing manual steps, IEC eliminates much of the manpower required for product life cycle management,

***"Our customers rely on us to be a traffic light, to let them know the health of their bill of materials. IHS is one of our top three strategic advantages to stay competitive. Essentially, we're providing our customers an insurance policy. By understanding – very acutely – product lifecycle, we can collaborate with our customers on their products and design."***



Tiger Biletnikoff,  
Director of Supply Chain  
IEC Electronics Corp

environmental compliance, and quote development. The commercial quote team, purchasing staff and program managers can now find information they need for themselves, eliminating laborious back and forth communications. Direct access to PCN notifications going to the engineering documentation center, which acts on that information, has eliminated three levels of communication steps and gets information to the right staff at the right time, no matter where they are located.

"IHS solutions are acting as additional staff members for us – probably at least five extra heads," Biletnikoff said. "In manpower savings, we're seeing about five times our return on investment."

## Changing the Conversation with Customers

Having accurate, current bill of materials information also changes the dynamic with the company's prospects and current customers, who look to IEC to help them reduce risk and keep costs down. Phil Tipples, IEC's Component Engineer, has been the IHS 'go to' resource to address, support and resolve issues and questions surrounding components. In fact, with an extended view into BOM availability, the company has become more of a trusted advisor to its customers in regards to improving their supply chain readiness and safeguarding against potential end-of-life and compliance issues for their products. As a result, engineering redesign services have become an improved revenue stream for IEC.

"When you're talking about high reliability markets, risk mitigation is at the forefront of every conversation we have with prospects and customers. Our customers rely on us to be a traffic light, to let them know the health of their bill of materials," Biletnikoff said. "IHS is one of our top three strategic advantages to stay competitive. Essentially, we're providing our customers an insurance policy. By understanding – very acutely – product lifecycle, we can collaborate with our customers on their products and design."

1 <http://www.iec-electronics.com/awards/>