



# Kepware Provides the Connections Needed for Molex to Make Smarter Business Decisions

## The Customer

Molex Incorporated is a leading global provider of electronic components and solutions for a variety of industries, including aerospace, defense, automotive, medical, and telecommunications. Its connectors are a key component of handheld electronics, automobiles, refrigerators, and other common technological consumer products. Based in Lisle, Illinois, Molex operates forty-five manufacturing locations across seventeen countries and employs more than 35,000 people globally. It sells more than 100,000 products that range from electrical and fiber optic interconnect solutions to switches and application tooling. Since developing its first electrical terminal block for the home appliance industry more than seventy-five years ago, Molex has expanded into some of the world's most complex and demanding markets.

"We believe innovation and quality go hand in hand, and we are continuously working to improve our manufacturing processes," said Steve Behlen, Controls Engineering Manager at Molex. "Since Molex serves customers in a wide array of industries, it takes a dedicated team to ensure we're providing the most effective products possible across these diverse markets."

## The Challenge

In recent years, Molex sought to increase the efficiency of operations at all of its facilities across the globe. To this end, the company created its Molex SIS shop floor program that easily integrates with SAP software solutions. The pilot program began in the Molex Ireland facility and worked tremendously. After deciding to expand the program, the company took the system to its Lincoln, Nebraska manufacturing plant.

Once the program was in place, however, the issue of interoperability across the multiple facilities quickly became a concern. The plant floors consist of hundreds of different machines from a variety of vendors, with each speaking its own language or "protocol." Moreover, the varying architectures across the company's forty-five locations added an additional challenge. Molex needed to find a solution that could facilitate communications between disparate machines and scale to fit into any industrial environment.

"Unfortunately, there's no one-size-fits-all protocol in the Manufacturing Industry," Behlen said. "You see it in your day-to-day technology usage as well: software needs to communicate differently if it's running on a Mac or a PC. The same thing applies on the shop floor. You have to be nimble and be ready to adapt to whatever is thrown at you, and we needed a



### Organization:

Molex Incorporated is a seventy-five year-old global manufacturer of electronic, electrical, and fiber optic interconnection systems.

### Industry:

Connectors and interconnect components manufacturing

### Solution:

Manufacturing Suite for KEPServerEX®

### Organization Impact & Benefits

- Enabled efficient global expansion through improved interoperability
- Reduced costs by providing reliable access to accurate and complete shop floor data
- Provided the scalability needed to adapt to the needs of future manufacturing environments

communications solution that would do the same.”

### The Approach

Molex determined that an OPC server best addressed its need to support a growing range of protocols, which would continue to increase as the international shop floor program expanded. It also had to consider the diverse current and future needs of the several different industries being served. Typically, OPC servers have a narrow, niche-industry focus: Molex needed a solution that could easily and efficiently handle any language it encountered in any environment.

After extensively vetting numerous solutions, the team selected Kepware’s KEServerEX to deliver a reliable OPC connection to all of its equipment in each industrial environment. With KEServerEX, Molex can now support multiple PLCs, process monitors, and controllers.

“One of our favorite things about Kepware’s product is its consistent reliability. The confidence that our program will work in any environment is invaluable as we continue our expansion into other facilities,” Behlen said.



### The Results

Since implementing KEServerEX, Molex has been able to make smarter business decisions. With its accurate and reliable data collection from the entire shop floor, KEServerEX has enabled process improvements, facilitated quality issue identification, and improved overall efficiencies. For example, in one of its larger production areas, Molex experienced an average 37 percent reduction in equipment downtime—information Molex could only manually estimate before.

Molex has also developed an industry-leading shop floor interface for each facility that uses KEServerEX to improve numerous logistical challenges (such as shipping confirmation and packing requirements). Since its implementation, it has prevented significant revenue loss



and ultimately allowed the company to offer better prices to its customers. The program also improved customer service by ensuring that Molex can deliver its products more efficiently. As the program continues to evolve and support additional shop floor interfaces, Molex plans to use KEPServerEX to drive better decision-making.

"The smarter and more nimble our business decision-making, the better products and cost savings we can deliver to our customers," Behlen said. "Kepware is instrumental to our interoperability across forty-five locations and happy customers across the globe."

### About Kepware Technologies

Kepware Technologies is a private software development company headquartered in Portland, Maine. Kepware provides a portfolio of software solutions to help businesses connect diverse automation devices and software applications. From plant floor to wellsite to windfarm, Kepware serves a wide range of customers in a variety of international vertical markets including Manufacturing, Oil & Gas, Building Automation, Power Distribution, and more. Established in 1995 and now distributed in more than 100 countries, Kepware's software solutions help thousands of businesses improve operations and decision making.

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