Spotfire™

FEFC improves manufacturing efficiency & quality

SECONDS

TO ACCESS DATA, DOWN FROM 7 DAYS

Challenge

Part of the Far Eastern Group based in Taiwan, Far Eastern Fibertech Company (FEFC) struggled with inaccessible data stored in many discrete systems. Most of its operating data was in an SAP ERP system and centrally managed by another subsidiary in the Group. Employees could only get access to this data online or via export to Microsoft Excel; data could not be further processed, analyzed, or integrated with other manufacturing system information. Because of data silos, decision-makers couldn't get a good grasp of operating and financial status. The company needed all its data to be consolidated and more readily accessible.

Additionally, each subsidiary in the Group had other data distributed across various management systems outside of SAP. Each week, significant resources were needed to export and organize the data, which delayed time-sensitive insights.

3 DAYS
FOR ML RESULTS, DOWN FROM 3 MONTHS

1 MONTH
TO COMPLETE DATA BUILDS, DOWN FROM 6 MONTHS

"The ubiquitous data and unlimited connection through Spotfire empowers Far Eastern's agile development."

—Norman Lin,
     Senior Vice President and
     Chief Data Officer,
     Far Eastern Fibertech
     Company Limited

Data management wasn't the only challenge. The Group itself also wanted to align with the vision of the Smart Factory and use data analytics to track performance. With the rise of Industry 4.0, the Far East Group of subsidiaries wanted to use data analytics to improve production line efficiency and product quality.

Transformation

FEFC staff realized they needed a data virtualization platform to import and combine data sources and generate relevant views for various users. They chose data virtualization software from Spotfire to provide a complete virtual view of data from the ERP and other systems. The data virtualization platform now allows users to obtain needed information immediately—static Excel data is a thing of the past.

After unifying its data, FEFC used other Spotfire solutions focused on visual data science to derive greater insight from its unified information. The team uses Spotfire predictive analytics software to study manufacturing variables, detect patterns in data, and improve product quality by taking action before degradation occurs. Using machine learning (ML), engineers can predict power consumption and make adjustments as needed. According to the results of a proof of concept, Spotfire software helped FEFC engineers accelerate ML results from three months to three days.

Additionally, the company automated operational report generation with its Spotfire analyses, improving efficiency and reducing costs. Compared to a week needed to download raw data and create a manual report with its previous system, Spotfire reports are now just a click away.

To better align with smart factory capabilities, FEFC implemented IoT sensors on all its production equipment. The manufacturer plans to use streaming software in Spotfire to monitor the data and provide alerts when measurements exceed predetermined thresholds, allowing operators to investigate and attend to matters before they turn into problems.

Benefits

Since implementing Spotfire, Far Eastern Group reports improvements in several processes: financial, cross-department workflow, power distribution, and manufacturing.

Far Eastern Fibertech Company Limited

(FEFC) is a subsidiary of the Far Eastern Group. The company uses the most advanced technologies and equipment to produce and sell nylon 6.6 fiber products with high functionality, comfort, and added value for a wide range of high-end applications within the apparel industry.

The Group can mine and analyze data through a highly interactive interface to generate more productive business charts and engineering analysis diagrams. With more accurate analyses provided with significantly reduced wait times, the Group is much more efficient. It increased visibility into information from suppliers and partners; enhanced productivity with regular reporting; improved timely communication; and advanced quality control of each product line.

According to Norman Lin, senior vice president and chief data officer at FEFC, "The ubiquitous data and unlimited connection through Spotfire empowers Far Eastern's agile development."

FEFC plans to further invest in smart factory technologies and expand its use of machine learning and real-time data analytics. FEFC is looking to use Spotfire to further improve manufacturing efficiency and ultimately reach the group's goal of Industry 4.0 leadership in Taiwan and beyond.

Ready to get smarter with Spotfire visual data science? Talk to an expert today at spotfire.com/contact-us.

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