

42Q

Simplifying Shop Floor Automation through Cloud-based MES

Years ago, Sanmina, an electronics manufacturer recognized a void in the manufacturing software market while they were looking for solutions to manage their complex requirements. Recalling Sanmina's problem, Bob Eulau, CEO, 42Q explains, "20,000 forecast changes per week, over 100,000 top level SKUs, high speed production lines placing 150k components per hour, integration with hundreds of complex pieces of manufacturing equipment, and a legacy on-premise manufacturing execution system to manage them." The realization led Sanmina to develop manufacturing software to satisfy the company's current and future requirements. That system became 42Q. While developing the new software, Sanmina also recognized the traction gained by SaaS and cloud based solutions and architected 42Q as a cloud-based MES. The solution is now leveraged by a number of manufacturers to support their unique requirements across various manufacturing processes.

"Our solution accelerates the implementation of factory automation,



Bob Eulau



Medical Manufacturing Facility, Using 42Q MES

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Machine to Machine (M2M) communication, real time process data collection and data analytics, all key elements of IIoT and Industry 4.0," remarks Eulau. Clients also benefit from 42Q's ready to deploy functionality that allows features like traceability, serialization, routing, and work instructions to be configured and used the same day.

Being a cloud solution, users can easily setup 42Q without the need for IT personnel or server hardware. Businesses simply log in, configure and use their new, cloud-based MES solution. Manufacturers get the

flexibility to pay for what they need and when they need it, resulting in significant cost and implementation advantages. "Clients can start with a single cell, a single line, or an entire plant, and scale the solution across dozens of plants as rapidly as they want," explains Eulau.

A major factor contributing to the uniqueness of 42Q is its proven use in highly regulated industries. With a clientele of companies from medical, automotive and aerospace verticals, 42Q has to stay on top of new developments in these industries. Along with best practices common to all three industries including documentation, measuring output and error proofing, 42Q also meets the underlying requirements specific to each industry. "Compliance requirements like ISO/TS 16949 in the auto industry or 21 CFR Part 11 in the medical device industry are in the DNA of the software," points out Eulau. The comprehensive capabilities of 42Q MES are evident from one of its implementations by a client who is successfully running full no-touch automation lines for medical device manufacturing and shipping millions of products per year. Using 42Q, the client manufactures these products with automatic electronic test data upload to an electronic traveler, and with full component traceability for every device. The product then undergoes fully automatic calibration with zero human intervention resulting in an error free manufacturing process.

42Q is focused on innovation by partnering with customers and world-class manufacturers who embrace technology as a driver of their own innovation, while keeping a close view of regulatory requirements. 