

SCADA and MES Connect with SAP in New Plant

New Jersey Facility Will Produce 60 Million Cases Per Year

AriZona Beverages doesn't do small. The company is famous for its 23-ounce "big can," and since its founding in 1992, AriZona has made a big splash in the market with its popular teas, juices, and energy drinks. The company is based in Woodbury, New York, and its newest plant is in Keasbey, New Jersey. The plant opened in November 2019, is 621,000 square feet on 37 acres, and will produce 60 million cases of drinks per year.

For the new plant, AriZona wanted a comprehensive solution for human-machine interface (HMI), supervisory control and data acquisition (SCADA), and a manufacturing execution system (MES) that would connect to its enterprise resource planning (ERP) system, which is SAP. Working with system integrator Vertech, AriZona implemented a system based on Ignition by Inductive Automation® and Sepasoft.

Ignition is an industrial application platform with tools for building solutions in HMI, SCADA, and the Industrial Internet of Things (IIoT). Sepasoft® MES works seamlessly with Ignition. In fact, Inductive Automation and Sepasoft are strategic partners and have worked closely together for many years. Sepasoft MES provides control, traceability, and documentation of the transformation of raw materials into finished goods in real time.

The Right Integrator

Vertech has offices in California, Arizona, Texas, and Tennessee, and has extensive experience in food & beverage and other industries. Vertech had a tall order for the AriZona project: provide the Ignition SCADA platform, the Sepasoft MES solution, an ISA-88-compliant batch control system within Ignition, and a strong connection



With its new plant, AriZona Beverages has more data going to more people than ever before.

to SAP — while also improving access to data for better production efficiency and lower costs. Vertech provided all this and more.

"We have improved efficiencies and processes throughout the plant," said Shami Usmani, vice president of engineering and manufacturing for AriZona Beverages. He said Ignition's ease of use and flexibility were a big part of the project's success. "Getting analytics out of a manufacturing facility has always been difficult," said Usmani. "We wanted best-in-class software to help us analyze the data received from the plant."

"Ignition allowed us to integrate a lot of the controls into the batching, communicating with all the different systems in the plant," said Alex Hunt, quality manager for AriZona Beverages. "It really smoothed out our process." He added that Ignition has been easier to use than other systems he's used in the past. He was also impressed by the flexibility of Ignition, which was especially helpful because it was the plant's first year in operation. "We were always adding new

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— Shami Usmani
V.P. Engineering & Manufacturing, AriZona Beverages

recipes into the system, and we found that it was much easier than we’d expected,” said Hunt. “And it’s also very easy to change current recipes.”

Ability to Adapt

Paul Warning, solutions architect with Vertech, said Ignition gave AriZona benefits on several levels. “The flexibility of Ignition and database integration made it an ideal platform to build a custom batch solution from the ground up that followed the core principles of ISA-88 — while also providing some freedoms to adapt the system to AriZona’s business needs,” he said.

Defining those business needs involved AriZona’s core teams getting together to take a good look at their workflows. “We saw there were a lot of manual handoffs, where people were just exchanging information via emails and phone calls,” said Kimon Stergakos, chief solutions architect for business applications and technology for AriZona. “So we designed a solution that removed those manual handoffs. We identified seven areas where we had those, and now we feel we’re getting a lot out of the fact that we automated that.”

The automated system with Ignition and Sepasoft helps AriZona convert manufacturing data into actionable analytics. It includes a best-in-class batch control system that interacts with every level of automation, from device control to SAP. The system delivers data for overall equipment effectiveness (OEE), downtime tracking, scheduling, and finished goods reporting. And software licensing costs were lowered due to Ignition’s unlimited licensing model, which brings no additional costs for more tags, clients, devices,

or projects.

“The value of unlimited licensing was further enhanced as AriZona’s IT group made Ignition clients accessible through their corporate business network,” said Vertech’s Warning. “This gave management, quality, maintenance, and production planners access to SCADA and MES systems through their corporate laptops without additional licensing costs.” With all the connections within the new plant, and the links to SAP, AriZona has more data to work with than it ever had before.

Mobile Access to Data

A key aspect of the solution is Ignition Perspective, which leverages the power of mobile devices. “The Perspective application for phones and tablets shows a summary of current work orders, sugar tank inventories, syrup tank inventories, and more,” said Warning. “You can see what’s been batched, and where the products are. You can see production packaging counts for OEE and downtime, and key performance indicators over the last seven days.”

Usmani said Perspective has been very helpful for AriZona. “Being able to see data on tablets, on phones, and on screens around the plant is the key to success,” said Usmani. “That has helped us tremendously to keep the costs down and look at our KPIs.”

AriZona also appreciated all the help from its system integrator for this very ambitious project. “Vertech has been a great partner to AriZona,” said Usmani. Stergakos agreed. “Our experience with Vertech has been outstanding,” said Stergakos. “Our IT and operations teams have developed good relationships with the Vertech team. Their skills and knowledge are superior to other vendors we’ve worked with in the past.”

Vertech has offices in Phoenix, Ariz.; Irvine, Calif.; Nashville, Tenn.; and Austin, Texas. Vertech provides solutions in numerous industries including food & beverage, solar, material handling, and water/wastewater. For more information, visit vertech.com.

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