Largest Cherry Production Line in the World Thrives on Ignition

Overhaul Brings 50-Percent Increase in Production

Prima Frutta, based in Linden, Calif., has the largest cherry production line in the world. The company achieved that status in 2016 when it installed new equipment and overhauled its cherry line. The result was a production increase of 50 percent — without expanding the workforce.

Prior to the overhaul, Prima Frutta wasn't able to fully utilize all its production lines. It wanted greater efficiency and productivity without increasing labor. The company hired systems integrator Industrial Automation Group (IAG) of Modesto, Calif., to help with the upgrade.

The successful project was also aided by Ignition by Inductive Automation®. Ignition is an industrial application platform with fully integrated tools for building solutions in human-machine interface (HMI), supervisory control and data acquisition (SCADA), and the Industrial Internet of Things (IIoT). Prima Frutta had already been using Ignition for other functions, and with the software's unlimited tags and licenses, it made sense to expand it into the new cherry line.

"We wanted a new control system," said Tom Augello, production manager at Prima Frutta. "Normally we use Allen-Bradley PLCs and HMIs, and that is a

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Prima Frutta saw huge gains in production with new equipment and expanded use of Ignition.

costly approach. We wanted a larger HMI, and IAG recommended we use Ignition, since we already have it in-house. We were able to leverage that Ignition server that we'd already paid for. So it was a great HMI solution that fit our production needs perfectly."

Data Everywhere

Ignition enables Prima Frutta to share data about the line with workers throughout the plant. Every day, 10 managers and 900 other employees get data from more than 120 video screens around the facility.

The screens are three different sizes: 27 inches, 32 inches, and 60 inches. Every year, Prima Frutta adds more monitors.

"It's very important to provide this data to our employees on the plant floor," said Augello. "As fast as we run, every second counts. If a change is coming — whether it's in size, quality, or variety — our people have a very short time to react. So we put that information up, and we flash things, or we

use different colors, to make sure everyone sees the data. The large productivity increase we've seen with Ignition is from these screens."

Smaller screens play a key role as well. The production line is now controlled from 10 tablets. The Dell tablets have stationary holders, but they can also be carried around the plant. The tablets provide full SCADA control. Four Moxa wireless access points communicate with the tablets.

Jason Kieffer, project manager for IAG, said Prima Frutta could have gone with "indestructible" tablets, but opted for less expensive, consumer-grade tablets because they're so easy to replace if the need arises. Kieffer also said he was very impressed with how easy it was to connect the out-of-the-box tablets with Ignition. "It was so quick," he said. "Within two hours of pulling the tablet out of the box, we were running the application on it. We were really surprised at how quickly it went."

Greg Sinigaglia, production manager at Prima Frutta, said having Ignition on the tablets — and on the larger monitors — saves time and money. "Let's take grading of the fruit, as an example," said Sinigaglia. "Before, we had to walk down and look at the quality and see what the sorters were doing. Now with Ignition, we have all this information displayed on screens. There's no more running around from spot to spot."

Little Time, Big Result

Prima Frutta and IAG made the project a success despite a very tight timeline. IAG mimicked Prima Frutta's Ignition server system, building a digital twin in its own office. "That allowed us to develop Prima Frutta's application in their working environment, so we could bring their application on-site and implement it very quickly," said Kieffer. "We did it in less than a day. It was very fast." The new code was copied and pasted to Prima Frutta's server with no issues.

Prima Frutta and IAG successfully completed their project with a tight deadline and within budget.

The project also adhered to standards developed by the Control System Integrators Association (CSIA). "The extensive planning and the use of CSIA standards really allowed us to deploy this rapidly," said Kieffer. "It helped with the design, testing, startup, and commissioning phases." Kieffer said other key factors were the extensive documentation, and strong communication with Prima Frutta.

Ignition performed well too, including when it came to updating the software. "The update process went flawlessly," said Prima Frutta's Augello. "We had no issues after the update. With other software packages, there's always something that goes wrong. We had nothing go wrong with this update."

Prima Frutta and IAG completed the project on time and on budget, without excessive change orders. The project was everything Prima Frutta expected it to be. Some of the credit goes to Ignition. "We're running the newest version of Ignition, and we're very happy with it," Augello said.

Industrial Automation Group (IAG) serves the food and beverage industry. IAG has implemented complex automation solutions across North America. The company is based in Modesto, Calif., and also has locations in Sacramento, Fresno, and Visalia, Calif., and Reno, Nev. For more information, visit **automationgroup.com.**