World Leader in Aerial Work Platforms Expands on Ignition

JLG Industries Always Doing More with Software

JLG Industries is the world's leading manufacturer of aerial work platforms. From its headquarters in McConnellsburg, Pa., JLG has provided aerial workers with quality products since 1969. Constant improvement has been a key factor in the company's success.

To make its manufacturing lines more efficient, JLG uses Ignition by Inductive Automation®. Ignition is an industrial application platform with several tools for creating solutions in human-machine interface (HMI), supervisory control and data acquisition (SCADA), manufacturing execution systems (MES), and the Industrial Internet of Things (IIoT).

JLG began using Ignition in 2014 to better understand its downtime causes. Since then, JLG's use of Ignition has expanded rapidly. JLG uses Ignition for machine control, data collection, remote alarm notification, reporting, and more. "We're using Ignition in various areas throughout the plant, and we're seeing results in machine control and greater efficiency thanks to the downtime tracking," said Tom Koontz, senior maintenance engineer at JLG.

The company also sees benefits from the Sepasoft Statistical Process Control (SPC) Module for Ignition. Operators gather for meetings on the plant floor and view the SPC dashboard on a 72-inch display. This helps operators to communicate with each other and better understand issues arising in the plant. "Now, with Ignition, we can pinpoint where a problem is coming from," said Koontz. Currently, up to 50 JLG employees use Ignition on a typical day.

One of the biggest Ignition projects at JLG is on the paint line, where new parts are painted. "Using Ignition, we're able to collect data on a more regular basis," said Tim Loftus, a senior

JLG uses Ignition as part of a broad effort toward constant improvement.

manufacturing engineer who's in charge of painting operations. "We're taking data points from our system every 15 minutes now. Prior to that, we were doing it every four hours. Ignition helps us find errors or out-of-spec conditions much more quickly."

JLG can now manage its paint line in a more proactive manner. The results have been so positive, JLG plans to expand Ignition's role in the future. "We plan for Ignition to help us go paperless in our paint department," said Loftus. "We want all the data we're collecting on a daily basis to be in Ignition, so we'll have one database that anyone can pull data from."

Integrating for Success

Multi-Dimensional Integration (MDI) is the system integration company for JLG's Ignition projects. MDI, based in Shrewsbury, Pa., knew Ignition would be a good fit because it's easily scalable. Ignition's unlimited licensing model means JLG can expand its use of the software at its own pace, without additional costs.

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"For JLG, we've completed 10 projects in Ignition over a two-year span," said Anthony Cherone, an engineer with MDI. "We've incorporated Ignition modules for OEE, SPC, Instrument Interface, and other items. These were pretty substantial projects."

Cherone said Ignition has made a big difference for the company. SPC charting and data analysis have helped JLG see where it can achieve greater efficiencies in its processes. "There's less manual work now, and more automation," said Cherone. "In one of our applications, we took a completely manual operation and made it automatic, and it's saving a lot of material. There's a lot of cost savings in that."

A bonus for JLG is the speed at which projects can be developed. "I can tell any client we're charging them less because we're developing in Ignition," said Cherone. "It's very fast compared to other platforms. I can create things in half the time."

No Limits

MDI uses Ignition for several other reasons too. "It's very flexible," said Cherone. "It's basically limitless. I've never had to say to a customer, 'no, you can't do that in Ignition.' And it's very versatile from a device standpoint. We have many different kinds of PLCs connected. We have barcode printers, barcode scanners, and weight scales all connected. We even have tools from the assembly line connected to Ignition."

The software also improves the bottom line for JLG. "It's helping them limit overtime costs," said Mike Ficchi, an engineer with MDI. "They're using the analytical data to find downtime causes which previously would have led to running additional shifts. It's making sure they stay within specification and control limits."

Ficchi also said Ignition makes the integrator's job easier, which benefits JLG and other clients. "Because Ignition is so easy to learn and easy to use, we can quickly integrate it into plants — so their people don't have to learn to develop on their own," said Ficchi. "They can focus on running their plants, and we can get them the data they need to make better decisions."

JLG has numerous plans for Ignition in the future. "We're in the pilot stages of an RFID tracking system that would be run through Ignition," said Koontz. "That will be a huge asset, to be able to track our parts and always know where things are in the production cycle."

Ficchi and Cherone agree that Ignition is the single answer for everything JLG wants to do. "There were no other packages that offered that," said Cherone. "It's really impressive that you can do wildly different things on this one platform," said Ficchi.

Multi-Dimensional Integration (MDI) provides customer service and development services for both legacy systems and modern automation controls packages. MDI serves a wide variety of industries, including food & beverage, water/waste water, oil & gas, dairy, and consumer products. For more information, visit mdiadvantage.com.

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