Track and Trace Application Provides Both Visibility and Error-proofing to Logic PD's Manufacturing Process

Logic PD understands the need to innovate. The global product development and manufacturing provider designs, develops and manufactures products in the aerospace/defense, control and automation, digital/internet of things, medical and agriculture markets. Working under the banner of "innovative product solutions," its ability to bring ideas forward from the back burner has made it one of the nation's best and brightest product realization companies.

As a strategic partner, Logic PD works with its clients to leverage intellectual property that may not have seen the light of day otherwise. But as these successes grow, so can the pressure on Logic PD's manufacturing operations. It's a natural challenge for growing manufacturers.

"As we grow, we have a greater need to supply product tracking information within the factory," says Jonathan Kisch, senior systems engineer at Logic PD. "We also need to reduce the number of human-generated errors that are introduced into the manufacturing process. A smaller company usually creates products using highly manual operations; however, we have reached the point where that is no longer maintainable or efficient. So we took a significant step in our growth plan by implementing Savigent Workflow™ to automate the tracking and control of our box-build processes."

Savigent Workflow is a controlled electronic system designed specifically for the automation of workflow in the manufacturing environment. Workflows are the sequence actions that define the interactions between people, equipment, and systems in the normal course of operations, as well as in response to unexpected events. Logic PD introduced Savigent Workflow on a manufacturing line that has ten steps from the production request to the bulk packaging of the finished goods.

"Savigent Workflow brought us a workflow management engine, which keeps us ahead of the curve in terms of technology," says Dan Latvala, IT director at Logic PD. "It's fairly straightforward to do certain applications that do certain processes or go through certain steps, but having a fully featured platform for workflow helps streamline operations."
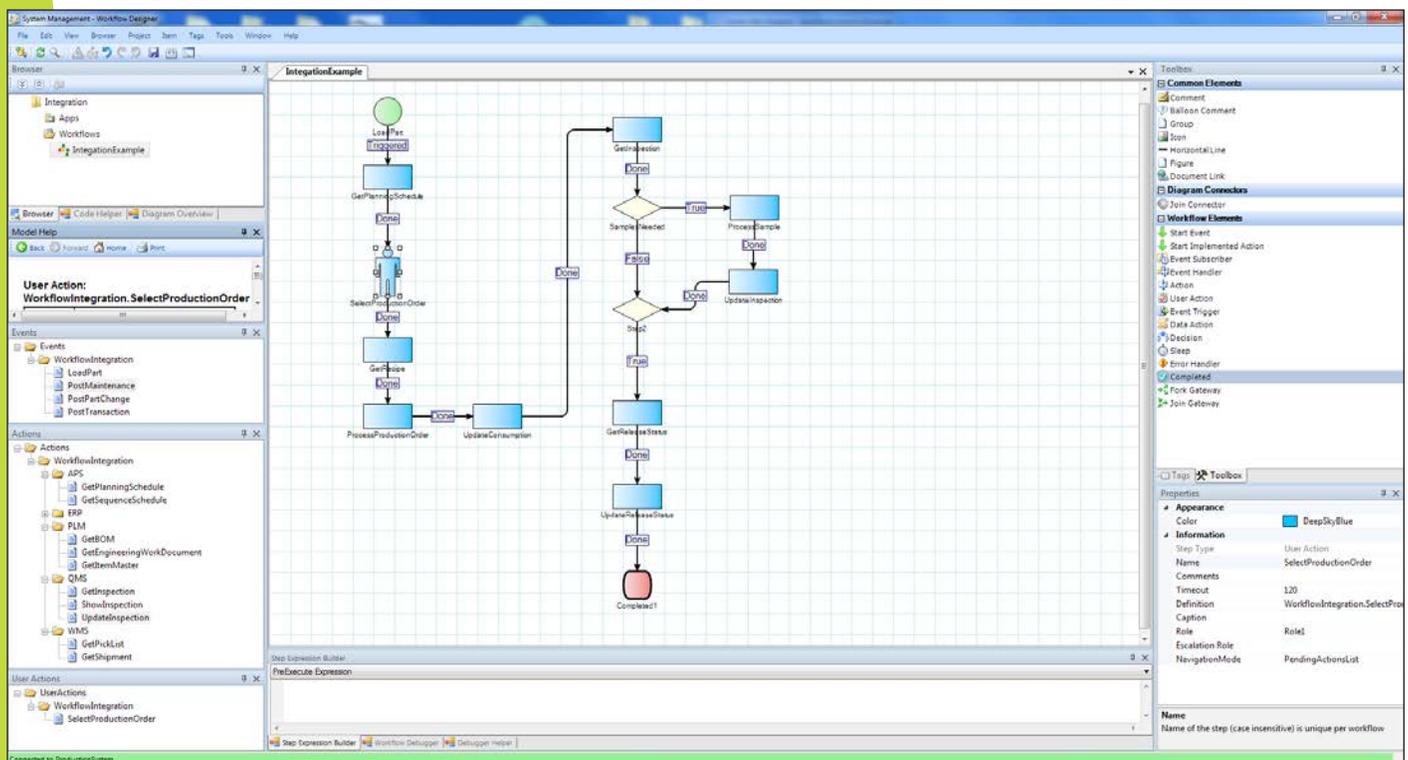
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Automating Quality

Logic PD is using Savigent Workflow in the production of highly intelligent, programmed thermostats. Each unit has to be tested, calibrated, and serialized in an automated test process. "Hooking Savigent's solution directly to our automated functional test system ensured that data about the product coming off the tester was recorded properly," says Kisch.

This enforces compliance to the defined manufacturing standard—virtually error-proofing operations.

"With Savigent's system, the functional tester interrogates the product, records the result, sends it to the system, and associates that result with that particular PCB assembly serial number," explains Kisch. "When that board goes to the first step of final assembly, Savigent's system asks the operator to scan in the serial number of the unit they are going to be working on. If that unit did not pass the functional test, the system will not allow it to be inserted into a case. It will tell the operator that he or she cannot continue the operation because the board did not pass in a previous step of the manufacturing process."

This safeguard not only ensures quality and high levels of customer satisfaction, but it also saves money, because when a product is found to not be functioning properly at the customer site, it has to be returned, disassembled, and diagnosed to discover the source of the failure. This is expensive on many levels.

"The Savigent solution makes our internal processes more efficient because the system catches the problem at the moment it happens, giving us the opportunity to fix the cause, quickly, at its source," says Kisch.

A Platform for Success

Latvala doesn't think of Savigent Workflow as a product, but as a "platform." Key to the platform is a system-level component that allows disparate systems—whether it is a Unix or Windows system that

is generating data via a text file, directly from a database connection, or from an FTP—to be synchronized into a manageable workflow process via the Savigent Workflow server.

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The new system empowers Logic PD to scale faster, bring products to market more rapidly, increase customer visibility, and improve overall manufacturing efficiencies.

According to Latvala, the Savigent solution takes Logic PD to a new level. "It puts us in a class of manufacturers where we will be able to compete in new areas of opportunity," he says. For example, Tier 1 or Tier 2 contract manufacturers have systems that can tell the customer that a particular serial number was put into kitting on a particular date, was inspected on this date, or was put through ICT at this time.

"We have always been committed to looking forward," says Latvala. "Incorporating workflow automation is another way we've taken that perspective to keep on the leading edge."

From the customer's perspective, Logic PD is able to secure and provide data much more quickly and accurately. It makes it clear that Logic PD can handle larger projects, where, for example, part genealogy is critical, as it is for medical device manufacturers.

Eagerly Looking to the Future

Logic PD is just starting to see some of the reporting benefits, as IT has been developing a number of reports that take data from the central Savigent Workflow database, which is easily accessible to anyone whom Logic PD designates for access.

"They've now seen what the future looks like," says Latvala. "Comments on the shop floor have been universally positive. They're saying 'This is outstanding. We've never had anything like this before. You mean if a customer asks me about a particular serial number or I get an RMA for a particular serial number, I can just type it in and get a report that shows what date it was built on, and what days it went through all the stations?' People are taken aback—and delighted—because they've never had that ability before."

Kisch says that the Savigent solution has made his life easier and more productive. "Since we've implemented the system, I don't have to be on the line as much," he says. "The clear visibility allows me to spend a lot more time in my office, which is about 15 miles from the factory."

As Latvala considers the expansion of Savigent's solution within Logic PD's manufacturing operations, he feels good about the support he expects to receive from Savigent. "Their integration team—the team lead, but other members as well—did a very good job in helping us understand what their product could do," he says. "They put a lot of time and effort into making sure that we got what we wanted and that we were happy with the end result. That type of focus bodes well for the future," he concludes.