

Case Study

IT Friendly, Easy to Use

Brewery Finds Itself Ahead of User Requests

It's a strange problem when an IT department can put too many features on the system. Usually, it's the other way around. More often than not, it is the IT department that is overwhelmed with requests.

"We find that we can overload our users with new features," said David Lewis, business analyst for Sierra Nevada Brewery Co. "It's so easy to build stuff. We're way ahead of the user-curve. We have found that we have to wait for them to digest what we've built, and then wait for them to start asking for more."

Lewis explains that before implementing Inductive Automation's FactorySQL and FactoryPMI software, they had a lot of requests – and those requests took a long time to develop. Accessing production system data was the biggest IT development hurdle. There just wasn't an easy way to get the data. After implementing the new software, they were able to easily obtain data from anywhere in the plant.

"Now, all of a sudden the data is all there," Lewis said excitedly. "It's the keys to the kingdom."

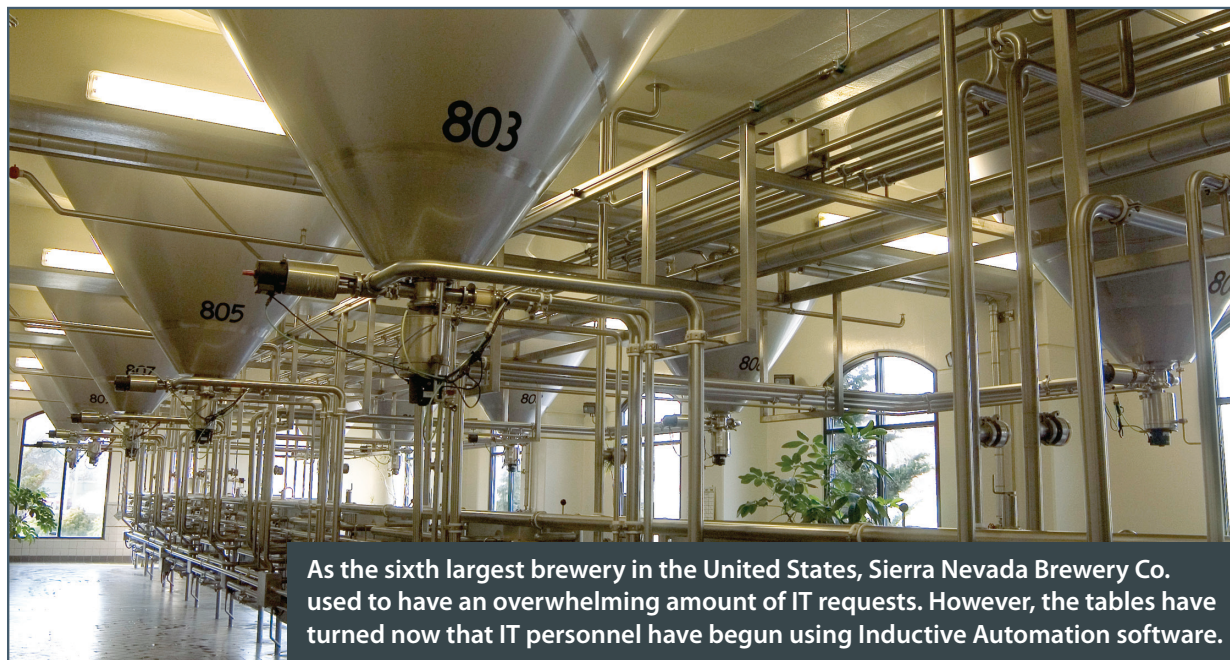
We've now been able to manage some pretty heavy workflow problems."

Getting Through the Skepticism

But it wasn't initially easy to find those keys to IT bliss. Anytime IT makes a decision to put new software on a system, they need to proceed with caution to ensure no disruption to the plant's production.

"We approached the software with skepticism," Lewis explained. "There was no support among our automation engineers for using it as a control system for both philosophical and practical reasons: Philosophically, because we treat our control system as a stand-alone system – completely unconnected from any other network – and practically, because our corporate Windows-based PC network had such a rotten reliability record."

"Fermentation is a 24/7 process, so our plant controls staff were in no mood to introduce Windows-style downtime to their lives. The Inductive Automation



As the sixth largest brewery in the United States, Sierra Nevada Brewery Co. used to have an overwhelming amount of IT requests. However, the tables have turned now that IT personnel have begun using Inductive Automation software.

software was so inexpensive, however, that we decided to try it for data acquisition and production reporting – two areas where there were no good alternatives on the market.”

Sold On the User Friendly Experience

The first experience with the software proved to be very user friendly.

“It was easy to configure,” explained Jonathan Swisher, system developer for Sierra Nevada Brewery Co. “The reason it’s easy is because I only had to install it on the server – one install. It took me no time, except installing it on the server. Its easiness comes from the client-side because there are no clients to install individually. There’s not a lot of overhead work to get it out to everyone in the plant.”

From a technical knowledge perspective, Swisher said the software had a very easy learning curve. It’s familiar to individuals trained in standard office technology such as web, Java, SQL databases, etc.

“Most of it seemed intuitive,” Swisher explained, referring to Inductive Automation’s “Jython” scripting. “All these functions are well documented. Python is clean and concise; which makes Jython really familiar. Jython is super easy to learn because it was familiar to what we learn in school.”

Access to Data Opened Up Possibilities

Ron Mayfield, system developer for Sierra Nevada Brewery Co., said that various interactions with the company’s SQL database had always been problematic in the past. When they rewrote all of the data to go through FactorySQL and FactoryPMI, life got easier.

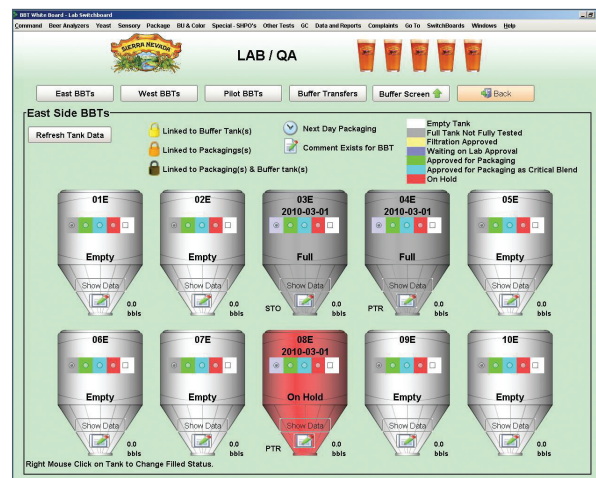
“Once we realized that was possible – to work with the PLCs and other SQL production databases – we found we could bring it all together and put it on one screen,” Mayfield said. “That kind of synergy of info was all off limits until Inductive Automation came around.”

By being able to work with the PLCs and the database, Mayfield said they soon realized that they could help all departments communicate seamlessly. One example he gave was their filtration to packaging workflow.

Before a tank of beer is ready to be packaged, it has to be processed by the filtration department and then sampled and tested by the lab. Test information was then hand written on to a series of whiteboards around the plant.

Mayfield said they faced a very simple, but big problem: As the plant grew, people had to remember to write that information down in more and more places – a round trip of nearly half a mile!

Now, with web-launched client screens bringing together PLC data (tank statuses, etc.), lab test data (from lab devices), and workflow data (approvals, comments, out of spec alerts), all that information is now available through any PC in the plant.



Sierra Nevada Brewery Co. built a tank status screen through FactoryPMI, which allowed the plant to coordinate its filtration to packaging workflow.

In Summary

Lewis, Mayfield, and Swisher agreed that changes aren’t always easy. Especially when the IT department can make more features than their users can take in at a time. They’ve actually had to slow down the pace of how many features they add to the system, just so users get a chance to accept the new changes.

“But I think everyone agrees that the changes are good,” Lewis said. “We’re a growing company. Five to ten years ago when we had to make a production decision, we would simply walk over and talk to someone ... but now, you can’t always find that person. Using FactoryPMI, we can always find the screen. Operation is much easier than before.”

Sierra Nevada Brewery Co. is the sixth largest brewery in the United States. Their beer is produced exclusively in Chico, Calif., and is distributed in all 50 states and exported to Europe and Asia. Their flagship product is Sierra Nevada Pale Ale, complemented by a year-round program of seasonal and specialty beers.