ICI invests in Industrial IT

When paint and chemical manufacturer ICI Paints needed to strengthen batch processes, maintain a solid historian package and operator interface and add the ability to react quickly to equipment and process changes, the answer was simply -- Industrial IT.

Client: **ICI Paints**

Location: **Huron, Ohio, USA**

Scope of Work: **Upgrade existing DCI control system and add a new Industrial IT control system**

"We looked at competitors and chose ABB for several reasons. The Batch process was very important to us. Almost the entire reason we were purchasing a system was to control our batch process efficiently and safely. The ABB batch product had redundant system capability, where computers had backups online at all times. Some competitive products didn't have that."

Dan Phillips
Resin Process Engineer
ICI Paints

ICI Paints needed the competitive advantages that upgrading their existing DCI control system would provide. They also wished to add a state-of-the-art, automated control system to a completely different area of their plant. Their answer was to upgrade their existing DCI system and add a new Industrial IT control system.

Background

ICI Paints is a leader in sales of internal and external can coatings. With some of the world's top paint and decorative product brands, serving both the professional and DIY markets, ICI Paints has products to prepare and care for all building materials.

Technology and innovation are important factors of growth for ICI Paints. When it came time to select a distributed control system (DCS) nearly a decade ago, it made sense to this chemical processing industry leader to partner with the process automation leader, ABB. When it was time to upgrade ICI's existing DCS and add a new system in another area, ICI Paints and ABB recommitted to the partnership, to their mutual benefit.

The Solutions

In 1999, ICI Paints upgraded its DCI system to the latest version of Conductor NT. "The upgrade went very well," stated Phillips. "We've been very happy with that changeover. The Windows based product is much easier to use - much easier to configure."

When the DCI system was initially purchased, several control systems were under consideration. The main decision driver was batch functionality.

ABB

The DCI system was the top of the line in batch functionality, with a lot of unique, value-added features that appealed to ICI. "We're able to go to any of the terminals & basically do anything we need to do, in terms of engineering, or operations or configuration, or looking up historical data. That's available to us on any station. That's a big advantage," stated Phillips. "It makes it very flexible for us. We can work with the operator side-by-side on configuration of a graphic or a batch process. That's been a big help."

Ease of Installation Means Minimized Costs
DCI system upgrades are simple. Phillips again: "It's basically taking the media we get from ABB, and following an instruction list they provide. It's usually a very short process – minutes, not hours. It's something we do in-house, with our own engineering staff, so that minimizes cost."

User Friendliness
ICI's operators are very comfortable with the DCI product. They're able to operate the system seamlessly. They can view each step of the process, and quickly determine the status of each step. They can see how all the equipment's operating. "If a valve's in the wrong position, they can note that right away and direct maintenance to fix an equipment problem in the field," stated Phillips.

Industrial IT
"It was a fairly easy decision to go with ABB's Industrial IT for several reasons," said Phillips. "The first was the functionality and features it gave us. The batch functionality has a lot of redundancy built into it. That allows us to maintain our process with very high efficiency and very little downtime.

"The operator interface is very, very good. It allowed us to seamlessly convert over from a non-computer based system to a computer-based system with very little training for our operations staff.

"It's a user friendly interface, based on a Windows system that most people have in their homes. It's been very popular with our operators. We were looking at other systems taking weeks for training, and in this case, the training was basically on the job, with very little additional cost."

Improving Batch and Process Consistency, Quality and Cycle Time
"The batch product ABB offers has several advantages over competitors," Phillips continued. "It has a redundant system, wherein computers have backups online at all times. Some of the competitive products don't have that.

"In addition, our prior product – the DCI product, had batch functionality that we were very happy with. The new system incorporated a lot of the features of that version. That helped us transition very easily.

"Industrial IT allows our operators to look at multiple areas of the process, batch historian and batches at the same time. For example, they can see two batches running simultaneously

in addition to the state or condition of several pieces of equipment. That's a big advantage. Some (competitive) products didn't allow multiple batch views at the same time. For the way we operate, it was essential for us to continue our process improvements and keep our efficiency very high."

Integrating Information for Improved Visibility
The ability to look at different areas of the process, at configuration screens, as well as recipes and operator interface screens – all in the same computer and multiple computers - has been very helpful to ICI Paints. It enables the team to work freely and directly on process improvements. "It allows us to maintain a high level of efficiency with our product and to continue to improve our process," stated Phillips.

"I think the operator interface is fantastic," Resin Process Engineer Brian Whittaker shared with us. "We're able to monitor different parts of the system on one terminal. We can monitor our tank farm levels, raw materials coming in and storage amounts, which is very critical to our batch processing."

Reduced Time to Decision and Action
Whittaker continued: "The other operators and I have found the system very easy to use, simply because the top level batch management is very easy to work through. It's a very user-friendly interface. We're able to reduce our time to decision and action because the controls to the field devices are right there in front of us on one screen, and we have no problem accessing these controls. There are operations the operator no longer has to do because the automation does it for him."

Looking Ahead
"In the future, I'd like to see ABB & ICI continue working together, and continue to grow our relationship," stated Phillips. "It's been very successful in terms of how our plant has been impacted by their products. ICI & ABB have worked well together in the past and we look forward to continuing our relationship as we move forward together."

Whittaker added: "We're happy with the systems that are in place with ABB, and we really hope to continue our relationship in the future."

Investment Enhancement through Evolution

Phillips again: "ABB's been committed to maintaining the most recent version of the products.

"Hardware's been backward compatible. We've had some hardware for almost ten years. It's been very, very reliable, we're comfortable with it, and we understand how it works. As we move forward to newer generations of control systems, this allows us to not have to spend money on hardware when we don't need it.

"The hardware's been installed for Industrial IT since 2001, with very few problems – we've had spare parts available that we haven't needed! That's definitely a benefit."

Evolving Your Control System to Industrial IT

ABB control system users all over the world improve performance and lower life cycle costs by building upon their existing ABB systems. Add the technological advances of ABB's Industrial IT offerings to get even more return from the systems you have.

ABB is dedicated to preserving the process security and value of your control system investment. We provide the industry's most comprehensive system life cycle and evolution programs to enhance your overall functionality and productivity, along with superior ongoing product support and service to keep your system operating at peak performance levels.

For more information on ABB control systems, call us at: 1.800.922.2475 (or if not in the US: +1 585.273.6417), email us at: industrialitsolutions@us.abb.com, or log on to: www.abb.com/controlsystems.

For more information on how ABB's Industrial IT technology can be employed to solve your chemical processing issues, visit us at: www.abb.com/chemical.