

Ignition Gives New Chemical Plant Room to Grow

Flexible SCADA Solution Fits Current and Future Needs

When a company opens a new plant, one of the many critical decisions to be made is choosing the right location. When the management of Baze Chemical, a wholesale chemical company based in Odessa, Texas, needed to choose a location for their new ethoxylation plant, they were drawn to the quaint town of Palestine, located about 100 miles southeast of Dallas and 150 miles north of Houston.

It wasn't just the wholesome beauty of the city that caught the company's eye: Palestine is a well-established railroad town. This is very important because the raw materials used for ethoxylation – a chemical process that creates surfactants, which are compounds that lower the surface tension of liquids – must be delivered via railroads.

After selecting Palestine as the location of its state-of-the-art ethoxylation plant, Baze Chemical began construction in 2013. One of the next critical steps for the new plant was developing an effective SCADA system.

Investigating Ignition

Baze Chemical called upon Coherent Technologies to develop a SCADA system that could fit and grow with the needs of the new ethoxylation plant. For Timothy Triplett, the CEO and founder of Coherent Technologies, the challenge of the project was not only in finding the software solution that would best fit Baze's needs, but in anticipating what solutions the plant would need at the start of construction, through the growth of the plant, and finally to the full operation.

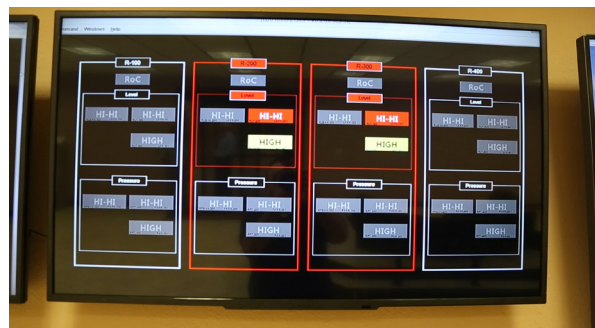
"We began a year before construction and started looking for what would be the best technology available and discovered Inductive Automation," Triplett said. Once Triplett found out about Ignition by Inductive Automation®, he began researching the software's features. "Ignition offered a platform-independent system, and that was a big plus for the

long-term sustainability. For the immediate operation of the plant, the unlimited client licenses were very attractive because, particularly with a new plant, you really don't know everything that you're going to need and who's going to need access to the information," he explains.

While Triplett was impressed with Ignition's features, he still wanted to gain input from those who use Ignition. To find out more about Ignition and Inductive Automation, he decided to attend the Ignition Community Conference (ICC) in September of 2013. "To really check it out, we went to the ICC to be able to talk to real users and to see the company up close at their headquarters," Triplett says. After attending the conference, he was convinced that choosing Ignition was the way to go, and Baze Chemical agreed.

High Flexibility and Visibility

With Ignition selected as the SCADA software for the new Baze Chemical plant, Coherent Technologies was ready to begin implementing the SCADA system. Triplett's philosophy for the implementation was to be as flexible as possible as the system continued to grow.



With a virtual annunciator, alarming functionality can expand as the plant continues to grow

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Coherent Technologies, Inc.

One example of the need for flexibility came in the form of the plant's annunciator. An annunciator is traditionally a hardwired system with a fixed arrangement of backlit windows and a horn which alerts operators about an unusual condition in the plant, such as a high temperature. In this case, Coherent Technologies created a virtual annunciator that visually and audibly alerts the operators about the status of multiple devices. The virtual annunciator, which hangs on the wall of the plant's control room, allows the operators to monitor all the alarms that are coming through the system without having to disrupt their normal screens.

"We found it very difficult to figure out the design we would need for the plant's annunciator without



The central control room featuring eight monitors, with two 4K monitors, and two virtual annunciators

having to expand it shortly thereafter as the plant grew larger. With the virtual annunciator, we were able to create a flexible, entirely independent Ignition system, with its own server, its own PLC, and its own display, and all within the same budget

for the traditional hardware annunciator," Triplett explains. He also says that as his team was finishing up work on the first annunciator, a second annunciator was needed and they were to handle the request easily with the flexibility of Ignition's platform and pricing structure.

Another main feature of the new ethoxylation plant is its central control room. With eight monitors at the desk, constant awareness and control of the plant's system is always within a glance. On the walls of the control room are two virtual annunciators, and two 4K monitors which are connected to 4K cameras outside of the building. With these high-resolution monitors, the operators inside the control room can see exactly what is happening outside. They can also use the various controls to zoom in their view of the process equipment and reactors to check on even the smallest details, since they were able to develop custom interfaces for the network-based cameras directly within Ignition.

Plans to Expand

The Palestine plant opened in February of 2015. Baze Chemical has equipped the plant with a talented staff of engineers, many of whom hold PhDs and Master's degrees in Chemistry, and the company has demonstrated a willingness to adopt new technologies. Under the guidance of Coherent Technologies, the plant can start with a solid foundation of an Ignition-based SCADA system and can continue expanding functionality, increasing productivity, and growing as an organization. "For the future, Baze Chemical is continuing to expand their capabilities," Triplett states. "We can dream and design whatever we want and whatever we need without having to jump through hoops. It's a straightforward implementation using the tools built into Ignition."

Incorporated in 1985 and based in Palestine, Texas, Coherent Technologies, Inc. (CTI), is a technology company specializing in the design and configuration of control and enterprise-wide information systems for industrial facilities. For more information, visit: www.coherent-tech.com