



SUMMARY

SINOPEC

Industry

Oil and Gas

Business Value

- Safety and Security
- Process Productivity

PI System™ Components

- PI Server™
- PI Coresight™
- PI DataLink™
- Enterprise Agreement

Sinopec: The Journey to Operational Excellence

Sinopec Argentina E&P is an oil and gas company in the San Jorge Gulf of Southern Argentina. It has about eight thousand wells in eight areas; in Mendoza, Chubut, and Santa Cruz and a head office in Buenos Aires. In his presentation, Adrián Pavesi, head of the automation team, described the company's first steps with the PI System and their later Enterprise Agreement where the PI System was deployed in all of the company's fields. Two years ago Sinopec began working with OSIsoft and the PI System. The presentation aims to demonstrate two realities. The first is "a small-scale pilot project that served to leverage the tool (PI System)," and the second is "how we are working with the Enterprise Agreement that we signed, starting with the benefits we were able to obtain from the first deployment," said Mr. Pavesi.

2014: Pilot project and first steps

In this first step, "we tried to find a business case in which we could fully test the OSIsoft tool. A project that would provide us with a good experience at a technical level so that we could have real test use cases with field data. The idea was to be able to focus on a core process that had serious problems and, with that, use the PI System as a case study tool," added Mr. Pavesi.

The core process chosen for the pilot was the secondary oil injection, which is essentially the process of separating oil from water as it comes out of wells. The project designers work in Buenos Aires while operations are in Las Heras and Santa Cruz – so the users involved in the process are in different locations. Moreover, each site had its own SCADA server with information about the project.

To Adrián Pavesi, "it was a simple project, five injection wells with their own pumping and transport equipment. Basically, the corporate vision that we needed was to bring data to users in a simpler way. The relevant well information was on a SCADA server with a fluid measurement system, while the plant process was on another SCADA server. Being able to view information on how certain processes impacted others, such as how a pump's operation impacted the wells, required crossing information from two real-time systems on different platforms."

The solution to the communication problem between process locations and their various SCADA servers was to install the PI Server, creating a main point of access to the most important information, and view it with PI Datalink. According to Mr. Pavesi, the results were positive. First, installation problems were detected. Then process conditions were improved, leading to greater productivity.

“The initial pilot project that we had deployed greatly exceeded expectations. So at some point we start thinking about how we could deploy this in the entire organization, in all facilities... We have nine similar projects, with two or three pumps each. Then, from the technological point of view, we started talking to see what possible solutions were available to take the project to a corporate level,” said Mr. Pavesi.

2015: Integrating a corporate solution

The installation of the PI System in the Sinopec pilot “greatly exceeded expectations,” according to Mr. Pavesi. After this, the company began discussing whether it was really worthwhile to sign an Enterprise Agreement with OSIsoft. There were many conversations at Sinopec with the Account Executives.

“Finally, last October we signed the Enterprise Agreement and we started being pleasantly surprised by OSIsoft personnel. For example, a project installation roadmap was drawn up for our company, with suite installation plan, servers, licenses, user progress, project, how to organize phases, etc.”

The Enterprise rollout at Sinopec is ongoing. The company’s architecture was defined in late 2015. Then the PI System was installed in the first quarter of 2016 and the tags were defined. The first training was scheduled in the second quarter.

“One of the points for reaching users is training, which focuses on the problems found in the pilot. In the class, instead of using the examples OSIsoft proposes for learning to use PI Datalink, we are directly developing part of the solution to adapt it to the users. OSIsoft is in the process of developing these courses, with the topics that we will cover,” added Engineer Pavesi.

OSIsoft and Sinopec have already planned specific projects for the remainder of 2016. “We have established five projects for the rest of this year. The working model we have chosen to follow, was to start looking for the main uses of the tool within the processes in place in the company. We have 9 SCADA servers in total, and we are 4 engineers, so you could say that time is not our main available resource. On the contrary, we are overly busy. So, to have that clarity from OSIsoft, when we have a feedback session, we optimize our time, and we can focus directly on what we have to do, without wasting time with email. We hold weekly direct reviews of how things are progressing and what each one needs to do,” concluded Mr. Pavesi.

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– Adrián Pavesi
Head of the automation team