



DRT BRINGS MANUFACTURING PLANTS INTO DIGITAL FOCUS

For almost 90 years, Dérivés Résiniques et Terpeniques (DRT) has manufactured two pine resin extracts: turpentine and rosin. The extracts are utilized by blue chip international brands that produce everything from cosmetics and perfume to adhesives, rubber tires, chewing gum, and food supplements.

Before adopting OSIsoft's data infrastructure, production engineers at DRT relied on manual data entry, control room phone calls and data collection with spreadsheets to determine the effectiveness of their equipment. "The quality of data was really poor," said Béranger Orleach, a performance engineer who is leading DRT's digital transformation.

In 2016, DRT deployed the PI System using only internal resources. Today, the PI System is used at four different plants and monitors over 15,000 data streams from DRT's assets, such as its steam generators and product distillation columns. The company now has over 400 custom displays that help them optimize asset health and production processes.

PUSHING BEYOND SPREADSHEETS

"There was a need for top management to understand not only what was happening with one asset, but what was happening on the whole site," said Orleach.

To structure and contextualize raw asset data in the PI System, Orleach's team adopted OSIsoft's Asset Framework (AF), a part of the PI Server, to create a digital twin of production equipment. With AF delivering a

coherent data model of each plant, the team created PI Vision displays to give engineers detailed, real-time view into operations as well as KPI dashboards for company management. Executives can now identify areas where energy usage and overflows create cost overruns.

At the plant level, the PI Vision displays proved to be a boon to workers who had to manually check the product amounts inside more than 180 storage devices. "One person

HIGHLIGHTS

- Product lines show up to 15% productivity improvement for equipment
- Less manual data entry. 360 degree view into real-time operations
- Process optimization yield €1.5 million in annual savings for a single product line



DRT's management utilizes PI Vision dashboards to track Overall Equipment Efficiency (OEE) metrics and continuously improve productivity and efficiency at the plants.

was in charge every day to check all these different storage devices," Orleach reported. With PI Vision, operators had instant visibility into product levels. The displays helped DRT to compute more accurate turnover ratios, identify redundancies, and, ultimately, remove unneeded storage equipment.

INTERACTIVE DIMENSION YIELDS SAVINGS

Now process engineers can see how their assets work together and model several days of historical data instead of relying solely on instantaneous reads. In one case, a blend of two resin-based products with strict thresholds set by a client had been subject to isolated data capture. The PI System helped the company to create an interactive model that demonstrated that its maintenance of the product lines had been excessive. Suddenly, costly protocols could be relaxed without breaching production thresholds. The cost savings for this single use case alone totaled €1.5 million a year.

Using the PI System's Notifications, engineers receive alerts when critical parameters are out of spec. "The PI System allows [production engineers] to sort through their batches, identify causes for underperformance and isolate opportunities to improve," Orleach said.

Today, less than three years into its PI System deployment, DRT utilizes more than 400 displays, some of which are used to improve its Overall Equipment Efficiency (OEE) metrics. The company also creates increasingly complex reports that can be analyzed by numerous departments physically removed from the plants. Reports on product lines show up to 15 percent productivity increases, and value stream mapping helps identify bottlenecks and new opportunities for reducing costs.

Orleach noted the importance of learning by doing in a company without deep experience in digital technology. "I was not an IT expert at all, and I didn't know anything about automation systems," he recalled. "But with [OSIsoft's] coaching, the online videos and with tech support, we're able to develop some tools considered internally to be quite powerful."

With 2017 being one of the most profitable years for DRT, Orleach credits the PI System with helping plant engineers get more value from the system's operational data.

For more information about DRT and the PI System, watch the full presentation [here](#).



The displays are being used on a daily basis and it has changed dramatically the way we do business at DRT.

— Béranger Orleach
Performance Engineer
at DRT

Orleach, Béranger. "Implementing the PI System with Internal Resources."
<<https://www.osisoft.com/Presentations/Implementing-the-PI-System-with-Internal-Resources/>>