

Metris cloud engineering

SAVES TIME AND MONEY

Montes del Plata uses an integrated Cloud-based engineering tool from ANDRITZ AUTOMATION to stay instantly up to date.

The Montes del Plata mill in Uruguay is the first to license the Uniform ANDRITZ Tool (UAT) as a platform for its own use – for efficient collaboration not only with ANDRITZ, but also within the mill and with sub-suppliers. Montes del Plata is jointly owned by Stora Enso and Arauco.

The UAT is an integrated database developed by ANDRITZ over the years as its central engineering tool for process, instrumentation, electrical, and automation projects. The core software (Siemens COMOS) was launched in 2002, but has been highly customized for the unique requirements of the pulp and paper industry by ANDRITZ over the last 15 years.

PERFECT COMPLEMENT TO IIOT

From the beginning, the UAT was prepared as a Cloud in the ANDRITZ environment. Distributed databases on four continents with Citrix® server farms have enabled Cloud engineering within the ANDRITZ GROUP for many years, according to Alexander Rostek, Manager of Detail Engineering and Tools for ANDRITZ AUTOMATION. “We built this tool to streamline the flow of information and to ensure consistent quality from

process engineering directly into detail engineering and automation design,” Rostek says. “To date, we have handled more than 6,500 projects with this platform.”

The platform provides a perfect interface within Metris – the company’s brand for digital Industrial Internet of Things (IIoT) solutions. Metris enables customers to benefit from mobile functionality, remote maintenance solutions, real-time data, and mill optimization using Metris OPP (Optimization of Process Performance) software.

“We rely on this Cloud-based platform to collaborate with customers, engineering partners, and other sub-suppliers working on a project anywhere in the world,” Rostek explains. “It provides benefits not only during the engineering phase, but through the entire lifecycle of a project. Because of this, we decided to make this database available to customers – and Montes del Plata seemed like a perfect first partner giving secured access to the respective project within UAT.”

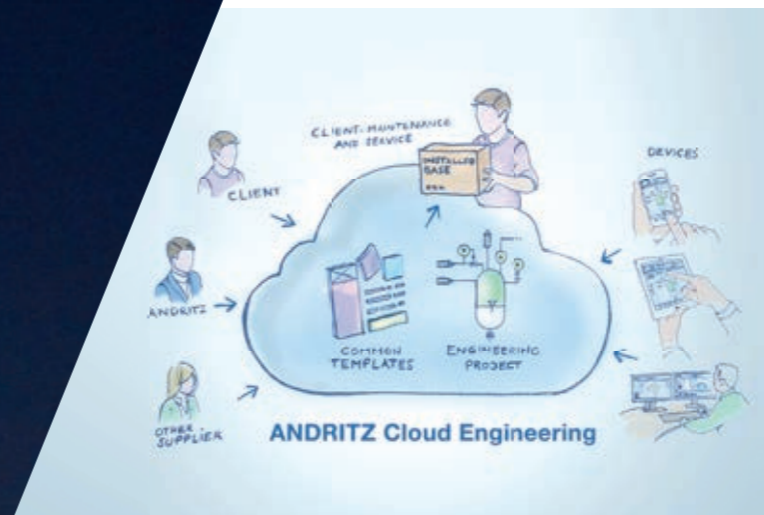
One of the reasons for the fit with Montes del Plata is that ANDRITZ was the main technology supplier for the entire mill, which started

up in 2014. ANDRITZ delivered the production equipment for the woodyard, fiberline, pulp drying plant, chemical recovery island, and power island.

“Our engineering experience and knowledge as a manufacturer of equipment for Montes del Plata is embedded in this database,” Rostek says. “Since Montes del Plata was using several different tools for engineering and design that were not seamlessly integrated, we believed they would benefit greatly from having our proven engineering environment as a foundation for their future work.”

“We were very interested when we were first approached about licensing the Uniform ANDRITZ Tool,” says Jose Vazquez, Superintendent of Engineering and Maintenance at Montes del Plata. “The design for this mill was fully implemented by ANDRITZ in this software, so there is a lot of information already in place. And, having everything on the same software platform was very appealing.”

According to Federico Ferreira, Electrical Engineer at Montes del Plata and the person managing



the implementation of the software in his company, a key advantage is that everyone involved in a project is now working with the same data. “It was a much slower process before when we worked with lists in one software, engineering drawings in another, and other documents in a third software,”

Ferreira says. “When we made a change in one document, we used to have to remember which other documents to change. Now, the COMOS software does this automatically.”

INSTANTLY UPDATED

A key advantage to the UAT is that all engineering data is maintained in a single database, which helps improve engineering quality. The seamless transition from basic to detail engineering simplifies documentation and revision management. Common templates for lists, P&IDs, loop diagrams, and other documents are included. The software has automatic updating procedures so that any revision or update is instantly reflected in all relevant documents – and this revision is made instantly available to everyone.

“It is important that everyone is working with the same data,” says Pedro Casagrande, an Electrical, Automation, and Instrumentation Analyst with ANDRITZ, who has been working in a support role with the Montes del Plata team. “In the old way of working, it was possible that a change was made in the field – say an instrument was added or a pump was relocated – and this change never made its way to the drawings. You find out eventually, but a lot of time and frustra-

tion is involved in getting the correct information. Because all data is always available and up to date, it depicts the actual as-built status of a mill at all times.”

UP TO SPEED

It took a reasonable amount of time for the Montes del Plata users to learn the COMOS software and get up to speed. Now they are quite proficient and use it daily, according to Casagrande. “My one regret,” Vazquez admits, “is that we didn’t start using this software from the start-up of the mill. We have about 1,000 documents and P&IDs in backlog that we are putting in the system to make it completely current.”

ANDRITZ continues to update the database for capital projects in which it is involved at the mill: capacity increases in the fiberline, recovery boiler, and the addition of an automated pulp baling line. Montes del Plata can see and review this engineering information in real time. “More importantly for us,”

Ferreira says, “are the smaller projects that we undertake on a regular basis without ANDRITZ. We now use this as a common tool with our sub-suppliers.”

As an example, the mill recently added a sump pump in the white liquor plant. “Even something as simple as a pump addition requires engineering – modifications to the cabling, wiring, logic, level control, and P&IDs,” Ferreira explains.

The software is based on objects. Components are described graphically. Data associated with the component is combined to form a single object in the database. All related data sheets, lists, and other documents are linked to the corresponding objects. Anyone with the proper security clearance involved in engineering and operations has access to the same data for a given object.

“This made the engineering for the new pump easy,” Ferreira says. “We created the new objects and data tags in one day – and the revisions automatically flowed through the related documents in the database. This was work that used to take us three to four days. The time savings were significant.”

“Metris Cloud Engineering will be our principal platform in the future,” Vazquez says. “All modifications will be up to date. This lays the foundation for greater reliability in decision-making and more efficient work throughout the entire mill – saving us time and money.”

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ALEXANDER ROSTEK
Manager of Detail Engineering and Tools for ANDRITZ AUTOMATION

