

Movicon™ SCADA Enhances Uptime and Reliability for Paper Manufacturing

RESULTS

- Fewer paper breaks and reduction of uneven lamination as a result of increased controls accuracy and machine precision.
- Faster machine tuning due to improved visualization
- Reduced plant downtime and material waste
- Enhanced plant OEE and waste reduction



APPLICATION

Paper Production Transformation

CUSTOMER

Sierra Coating Technologies is a leading manufacturer of laminated and coated paper, film and non-woven material located in the United States.

CHALLENGE

Sierra Coating was experiencing poor product quality, frequent machine breakdowns and long repair time due to outdated control platforms and lack of operator visibility. The company needed to modernize in order to send alarms to operators to quickly and precisely notify them of slowdowns and problems with individual machines or the whole system. Sierra Coating wanted to improve uptime, machine precision and product quality.

SOLUTION

Sierra Coating worked with automation partner Tech4 for its system integration. Tech4 designed a solution based on the Movicon supervisory control and data acquisition (SCADA) platform that would enable enhanced machine visibility, real-time alarming and seamless integration with legacy sensors. The firm installed a touchscreen equipped with the Movicon SCADA software and a programmable logic controllers (PLC) on the first machine in the line along with several temperature sensors, which allows the operator to check the status and efficiency of the machine via Ethernet/IP protocol and records it every 10 minutes in a SQL database. This permits the creation of temperature trend graphs and equipment monitoring in real time.

“With Movicon SCADA, it is quick and easy to develop an application. This SCADA also offers functionalities such as recipe management, the possibility of creating reports, and not least, the sending of the same in electronic format - all features that have been useful for the success of the project.”

Matt Dictus
Electrical Engineer
Tech4 LLC

On the second machine, Movicon SCADA easily integrated with modern new automation devices, including drives and PLCs with related I/O, requiring minimal troubleshooting thanks to the multiple available protocols. In this specific machine, the operator uses the recipe management tool to oversee every process required for each different production run.

On the third machine in the line, Movicon software enabled new functionalities, such as tracking temperature, torque and speed parameters on the motors. The operating parameter history is now stored in a SQL database, enabling tabular and trend charts. The alarm dispatcher module has been enabled to send remote notifications and reports that are easily viewed on a remote PC or mobile device.

Sierra Coating has extended machine uptime, increasing plant OEE and reducing scrap. Thanks to more accurate controls, the machines perform more precisely to coat and laminate paper and paperboard optimally, resulting in fewer paper breaks and fewer unevenly applied coatings. Another advantage enabled by the use of the Movicon platform is the ability to monitor and control the machinery performance and receive alarm code descriptions in a structured readable format. The Movicon programming interface made it quick and easy for Tech4 to develop the application.



RESOURCES

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