Optimizing production processes

NK service JSC has chosen to use Movicon for the control room management of a new installation equipped with silos and control sensors in Tauragė County (Lithuania).

NK service JSC is a Lithuanian process automation and thermal heat sector engineering company. Since 2008, the market successfully operating company is aware of what determines the quality and reliability of industrial processes. The high quality of products and services allowed NK service JSC to become a reliable partner for many Lithuanian and foreign industrial companies.

Stungiai agrar JSC, a local company working in the agriculture sector, reached out to Inter-Silo JSC as they needed new grain silos with a dryer and all technological equipment.

Tasks

The cooperation of Inter-Silo JSC and NK service JSC was successful.

Inter-Silo JSC took care of the installation of silos and technological equipment meanwhile NK service JSC was responsible of the electrical installation and silos control. The SCADA system, located in a control room, is used for process monitoring, data analysis and equipment control. NK service JSC designed the automation system architecture, took care of the electrical installation and plant start-up

Movicon Solution

NK service JSC has chosen to use the Movicon SCADA by Progea for the control room management of a new installation equipped with silos and control sensors.

The control system, supervised by Movicon, manages the process thanks to Siemens S7-1200 PLCs and motorized valves located in different points along the line, starting from the fresh cereals' supply up to the final phase where cereals are treated and dried.

In addition, Movicon supervises the functioning of all conveyor belts and elevators placed in the different transport lines and of all forced dryer systems.

The management of the cereal working process has been designed following precise sequences that can be executed on the clients installed in several points along the different lines.

The plant has been engineered to manage and consequently use up to 4 various sequences at the same time.

In Movicon, thanks to the intuitive and efficient management of receipts, every sequence has been associated to a single receipt, that the user can easily select.

In addition, every sequence corresponds to a different color. This way, the operator, seated at the client stations along the line, intuitively and quickly understands which sequence is in progress in that exact moment and the correspondent status.

Thanks to the connectivity feature, available in Movicon, all the receipts are directly saved in a Microsoft SQL database.

Movicon, moreover, allows the operator to create the path of cereal working in an easy and guided way. Even the operator with not so specific programming skills (if connected with high level privileges) can independently engineer the working path.

You can select a specific device on a specific path, just by clicking on the device itself. Later another device, that is connected to the selected one, starts blinking (this means that the device is ready to be selected).

This way you can create, confirm, label the path and store it in the SQL database.

Afterward, any operator, thanks to a dropdown list, will be able to choose among the memorized paths, select one and start it.

Movicon, not only controls and customizes different sequences, but it also collects all the data coming from thermometric systems. The installed sensors for measuring temperature communicate with Movicon SCADA through Modbus protocol.

This way, thanks to the charts, it is possible to monitor in real time the trend of different parameters collected from 168 sensors that are installed along the line drying system.

In addition, the powerful analysis tools of Movicon allow to historicize the data and check the temperature status in short-, medium- and long-term.

The integration of collected data with the Movicon alarm management system allows the notification even of minimum deviations of single parameters in comparison with the referral ones for any single process.

Movicon Benefits

"We are very satisfied with the Movicon solution, that thanks to the use of numerous features available through Script code, allowed us, unlike other competitors solutions, to customize in an easy and quick way even the most specific functions." declares Arvydas Racius, of NK service JSC.

Another benefit that the customer appreciates is the flexibility of receipt manager. Thanks to it, they were able to quickly and easily centralize the management of the different production cycles.

Moreover, the ease of interfacing Movicon receipt manager to a SQL database allows to historicize all data of the receipts in a powerful and safe repository.

Another key factor that the customer liked and constantly uses is the analysis tools available in Movicon SCADA. Thanks to these, Stugiai agrar JSC's staff in a few steps can analyze all the data acquired from the production cycle at different times.
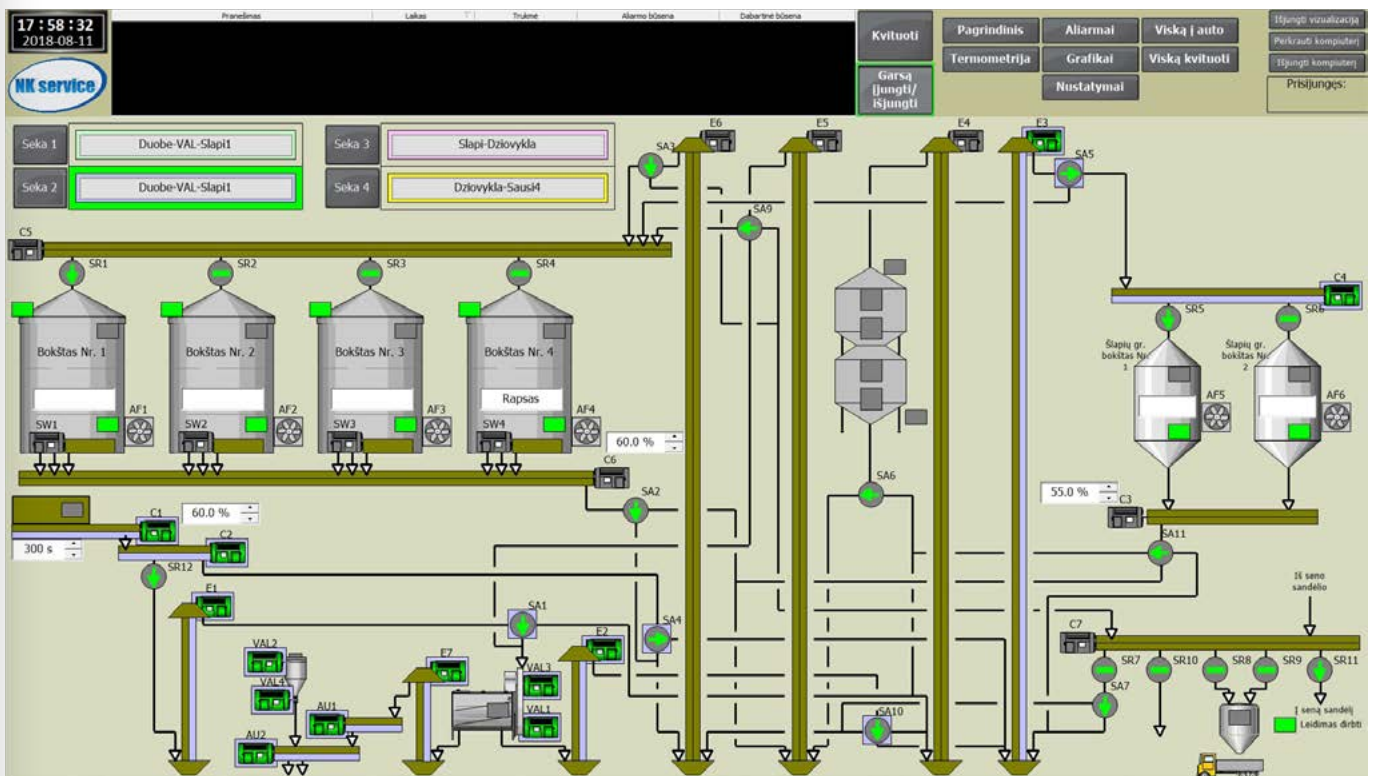
"We have chosen Movicon by Progea as it is extremely flexible and this allowed us to centralize the production cycles in a quick and easy way."

Arvydas Racius
NK service JSC