

ELIPSE E3 PROVIDES MORE SECURITY AND RELIABILITY TO THE PROCESS OF DAIRY FARMING

Solution by Elipse Software implemented in the Tangará Foods plant, in Estrela (RS), allows an online monitoring of the steps of dairy farming, as well as creating reports and charts used as documents to prove the quality of the performed processes to regulation agencies

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Needs

Headquartered in Vila Velha (in the state of Espírito Santo), Tangará Foods is a group that works on the food market since 1993, and has 40 years of expertise in this field. Recently, the company was chosen the best company on the dairy farming segment in Brazil, according to the Anuário Melhores & Maiores 2012, published by the Exame magazine.

Looking for a better control of operations and devices responsible for processing milk, the plant located in Estrela (RS) decided to use E3, solution developed by Elipse Software. Typically, production is performed in batches by processing, in a single campaign, the load received from several trucks.

The basic need of Tangará was monitoring the reception of raw materials, to monitor the amount consumed during the processing of each batch. It is important to point out the participation of BerelSoft Sistemas de Controle, the company responsible for implementing E3.

Solution

To aggregate more quality to the process traceability, this control system was implemented with a new PLC, new coolers, mass meters and compact valve manifolds provided by VDA Válvulas Especiais. Via E3 screens, operators can control different variables involved in dairy farming.

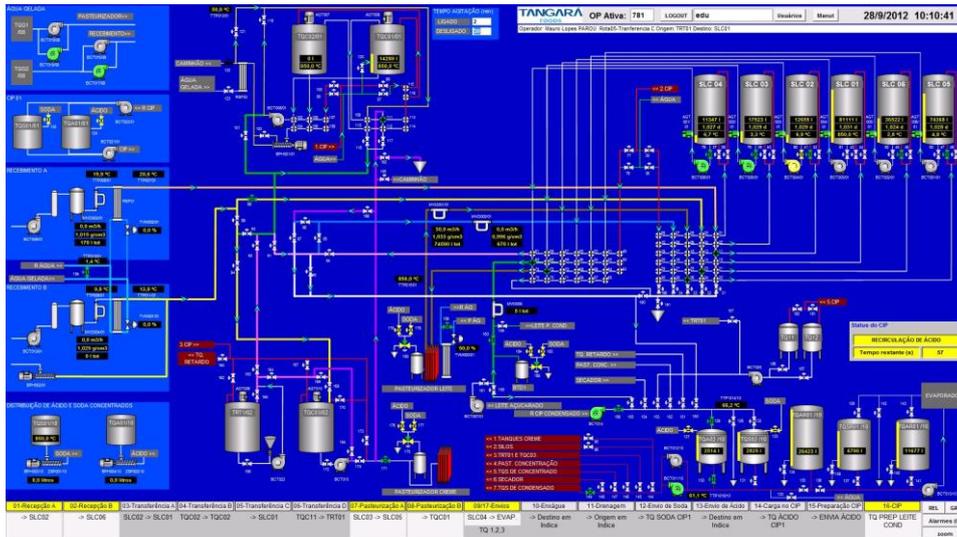


Figure 1. Application's main screen

As the plant works 24 hours a day and seven days a week, they opted by using a pair of Hot-Standby servers so that, if a failure occurs in the main server, the Hot-Standby server takes over the execution of the application without any interruption in the production. Thus, the SQL Server database that stores data referring to the reception of products (temperature, flow, density, batch, etc.) replicates on both servers.

In the plant reception, it is possible to monitor in which silo the batch is processed, the level checked on stock silos, unload flow, and cooler temperatures. In the operation room, it is possible to monitor the condition of valves and pumps, as well as performing commands over the routines of receiving, pasteurization, transfers, and CIPs.

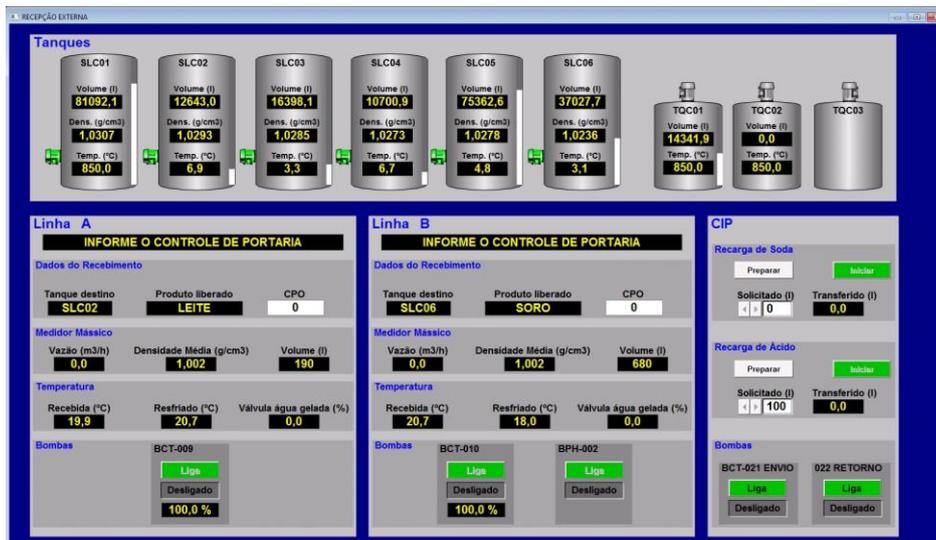


Figure 2. Control screen in the plant's reception

E3 also provides reports and charts, with the possibility of exporting them to an Excel spreadsheet. Thus, the administration can prove the quality of its procedures to regulation agencies, as well as analyze the quality of the performed tasks and then define strategies.

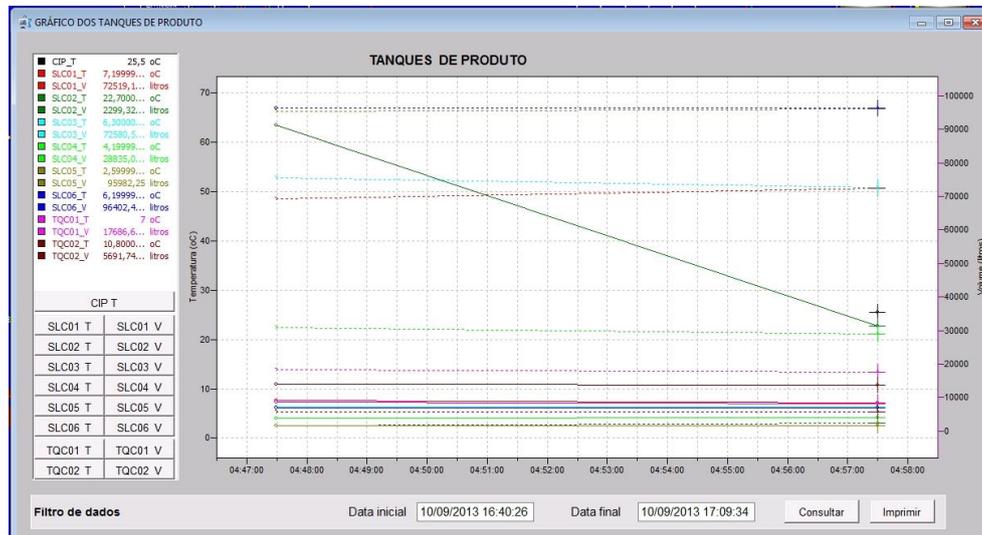


Figure 3. Chart of product tanks

Finally, the software has an alarm system that provides a screen signal, in case any problem is detected in a device or in a step of the dairy farming process in the plant. This way, the maintenance team can act quickly, avoiding aggravating the problem.

Benefits

Before the application, the traceability of operations and the handling of raw materials suffered from a lack of improvements. As the load is heavily fractioned and there are many product transfers among the tanks, manual tracking was very complex and inaccurate.

“If the input temperature of raw materials in the plant was very high, for example, there was no way to diagnose its cause. Today, thanks to E3, we can intervene immediately if any variable is outside the standard”, declared Fábio Braun, production supervisor in the Tangará plant, in Estrela-RS. “Process is 100% safe”, he added.



Figure 4. Operator in the command room

Check below some of the main benefits when using the software:

- Real-time reports, with the possibility of exporting data to an Excel spreadsheet.
- Charts confirming the quality, with a laboratorial signature, work as a document proving the quality of the processes performed in the plant to different regulation agencies.
- System reliability and availability.
- Better traceability of the operations performed.

TECHNICAL INFORMATION

Client: Tangará Foods Ltda.

System Integrator: BerelSoft Sistemas de Controle Ltda.

Elipse package used: Elipse E3

Number of copies: 6 (1 E3 Server 1500 Hot Stand-By + 3 E3 Viewers + 2 E3 Viewers Only)

Number of I/O points: 800

Platform: Windows 7

I/O driver: ABCIP