automationX

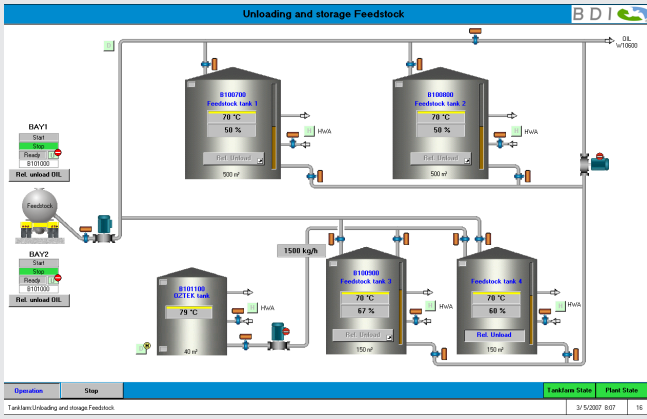
aX Reference

BDI - BioEnergy International AG

Scope of Project	Automatisation of the biodiesel plant in Arnoldstein
Particularities	Multifeed stock plant for vegetable and animal fats as well as used cooking oils; comprehensive process optimisation
Plant Location	Arnoldstein / Austria
Client	BDI - BioEnergy International AG

KEY FACTS

aX Software	automationX aXbatch APC (Advanced Process Control)
aX Hardware	3 aXpbc1 Profibus counter
aX Server	1 redundant server pair in central control room
aX Client	2 operator stations - multi monitor 3 operator stations - single monitor
I/O's	1,200
Data Points	5,000
Network	TCP/IP, Remote Support via VPN Control technology: TCP/IP Field: Profibus DP, Profibus PA
Field	Siemens ET200M, ET200S motor starter, FESTO valve terminals, Siemens Drives, global weighing technologies, weighing transmittor



OUR CLIENT

BDI - BioEnergy International AG in Grambach near Graz specialises in technology for processing renewable resources. The planning and supplying of plants for the production of biodiesel from vegetable and animal fats and oils is an important pillar of the company. AutomationX supplies the automation technology for large-size industrial biodiesel plants (6,000 to 100,000 tons per year), such as can be found in Bruck a. d. Leitha (A), Olomouc (CZ), Malchin (D), and Barcelona (E) as well as for other smaller cooperative plants.

THE SOLUTION

Due to its long-standing partnership with BDI, AutomationX has gained expert know-how in the implementation of process engineering in large-size industrial production plants. A prerequisite for these applications is the server redundancy of the process control system in order to be able to guarantee maximum availability of the plants. Beside easy operation, complete monitoring and fully automatic control of all production processes play a central role. Statistics, accounting, trending, alarm journals, maintenance information etc. round off the range of services.

The plant processes flammable material and thus PA devices have also been used in the plant beside the EEx areas. All converters as well as I/O modules, scales, motor starters and valve terminals are integrated via Profibus. The highest standards in plant equipment also vouch for quality and security in the production process. automationX provides easy-to-use and full-graphic visualisation. Maintenance of the entire control system is carried out directly from the BDI headquarters in Grambach by means of a secured internet connection.

THE OPIMISATION

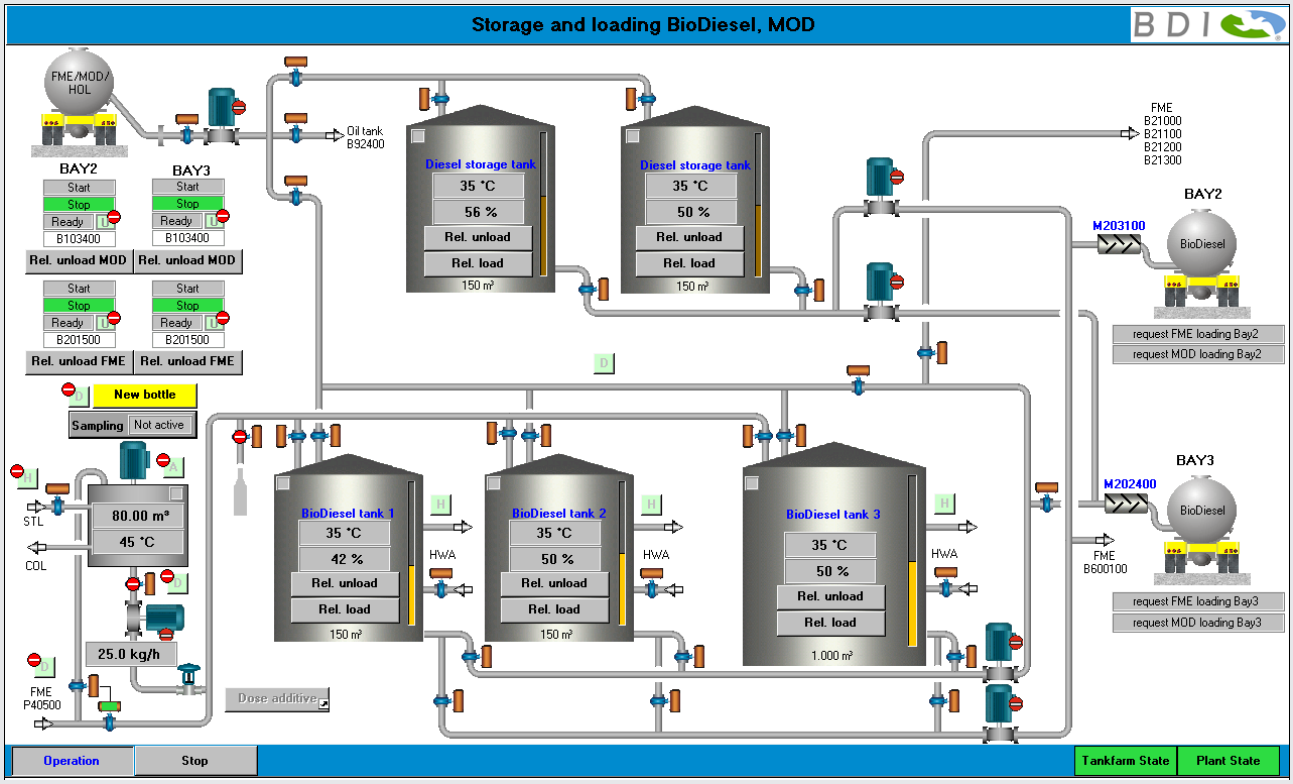
The expert system in the form of eMPC (enhanced Model Predictive Control) helps in sustainably safeguarding quality controlled and efficient biodiesel production. Comprehensive eMPC solutions enable active process operation with an optimal use of resources under higher quality standards.

► **Model (model-based)**
A model is the mathematical depiction of a process based on the available data (recorded measured and control values).

► **Predictive**
Action instead of reaction: Comparable to a chess computer, eMPC uses present data in order to calculate the possible process development in the event of future changes in the influencing variables.

► **Control.**

eMPC helps to optimise complex processes of existing plants by means of additional control. The aims are to increase production and quality and to reduce costs.



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