

A P P L I C A T I O N N O T E

FOOD INDUSTRY

„Mlekovita” Wysokie
Mazowieckie



Supervisory system of cheese dairy

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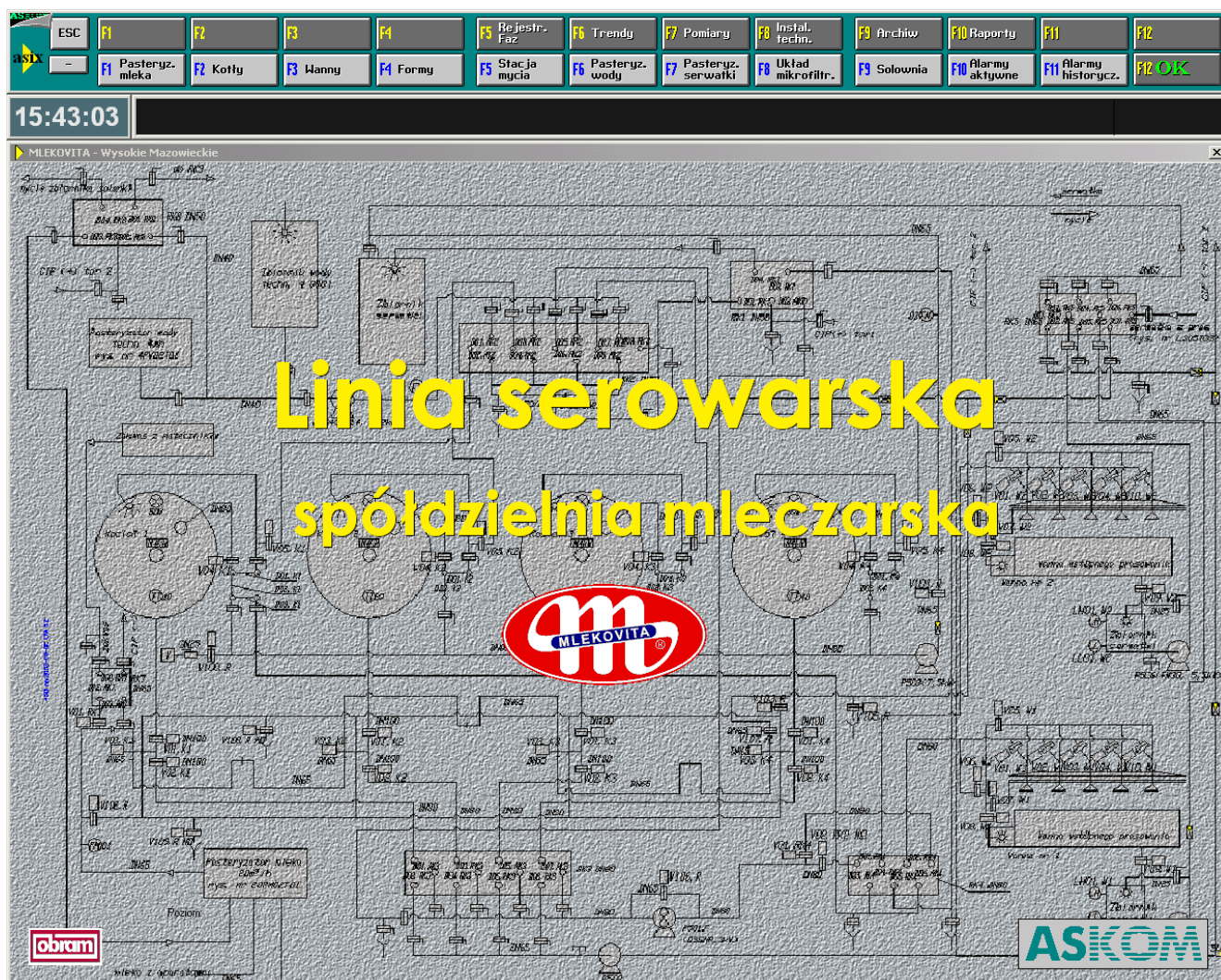
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Supervisory system of cheese dairy

ASKOM in collaboration with **OBRAM** – Olsztyn has realized a visualization and supervisory system in **MLEKOVITA** Dairy Plant at Wysokie Mazowieckie. The system encompasses pasteurisation systems for milk, whey and technological water.

Technological process is controlled by the means of PLC **SIMATIC S7**. Visualisation is based on program **asix** responsible for supervisory made by operators and collection of all the data necessary for generation of reports.

Two operator stations are connected to PLC by the means of **PROFIBUS** network. They are working in fully redundant system. It assures their equivalency and functional interchangeability.

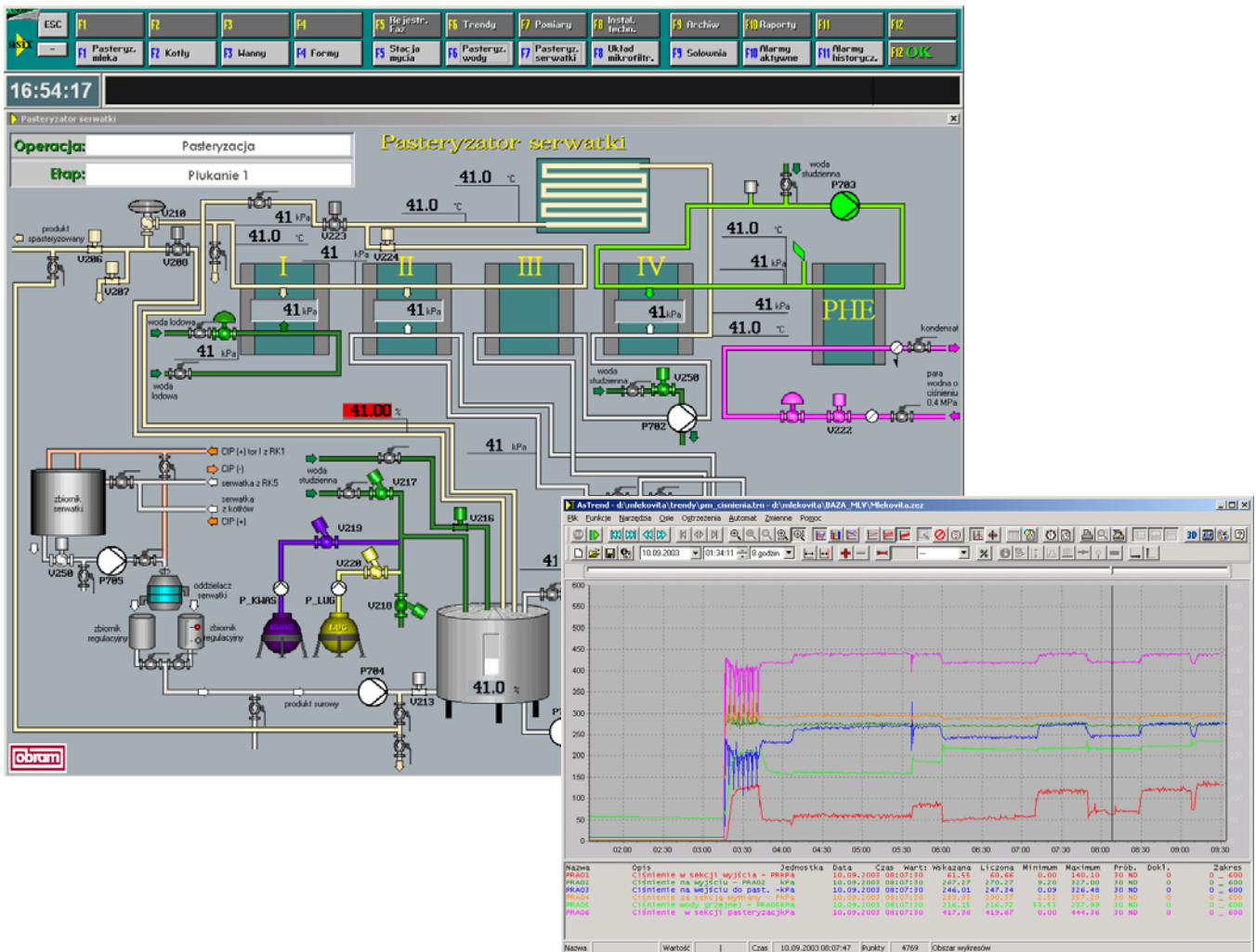


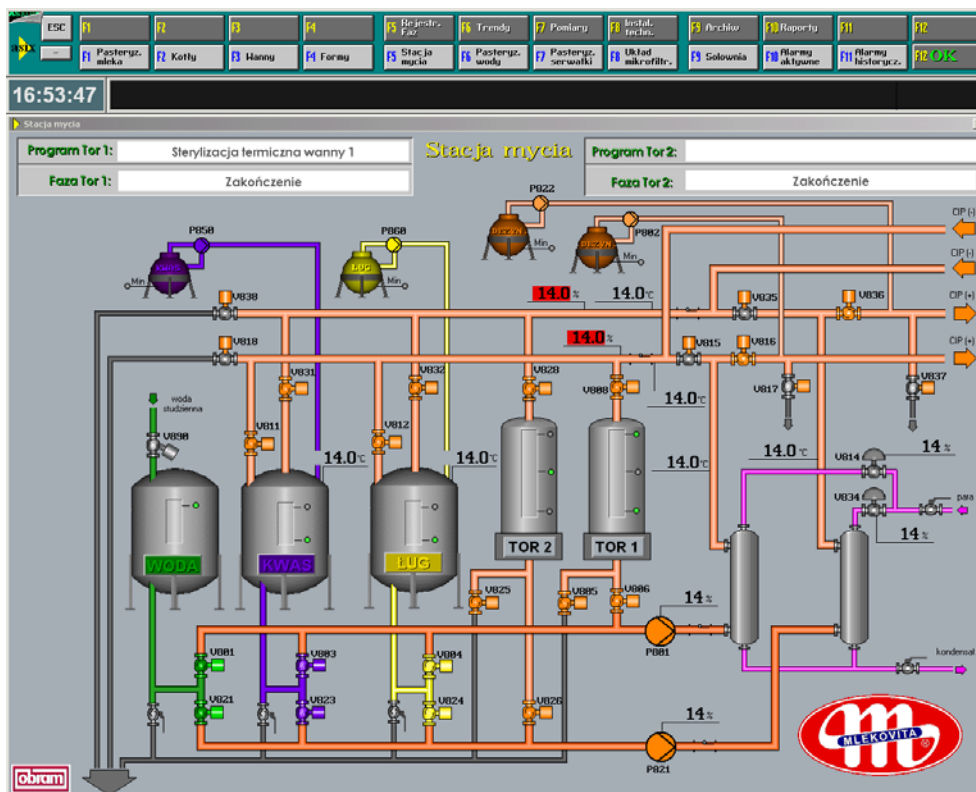
Pasteurizations, cleaning station CIP

One of the main system tasks is controlling the milk and process water pasteurizers. Strict following of pasteurization rules has a great importance for bacteriology safety. Automation of pasteurization procedures takes as effect a high repeatability of process parameters and makes a supervision very convenient. Logging of all process parameters allows a detailed data revision and product inspection. Scada system could be programmed for easy and quick report printing that meets regulations valid in food processing industry.

CIP procedures in automation system ensures a proper execution of cleaning tasks. Optimal routines timing and dosage of cleaning components extends a line life and effectively removes all biological impurities.

All of the washing routines are pre-programmed in PLC memory. Supervisor is only to choose a proper one and initiate the execution. In the case of malfunction of any process instrument there is a possibility of hand operated carrying out of washing procedures. Hand operated mode means that supervisor executes the whole procedure step by step by means of visualisation system. History of all washing cycles and events could be easy revealed from the archived records

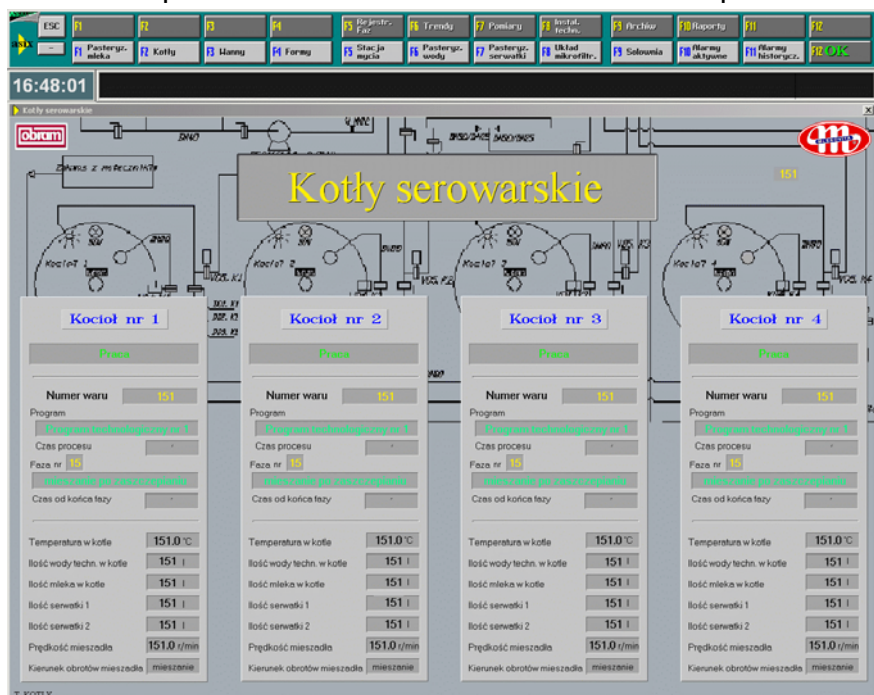




Cheese boilers

The fundamental meaning for correct cheese processing has a milk boiling installation. In Mlekovita Dairy it consists of four boilers. All essential process data which could be measured are put into control system and store in SQL data base. A sophisticated reports that describe all the process phases could be printed either in graphic form (charts) or in tabular shape.

Computer control system based on ASKOM solutions allows precise operation of whole process according to established recipe. It ensure a homogeneity of every one product during the whole line life cycle, regarding taste and quality characteristic as well.



Pressing line

One of the most important phase of cheese production is final pressing of cheese forms. Visualisation SCADA **asix** has a sophisticated background program respon-sible for traceability of each batch alongside of press line (4 x 72 forms).

Every individual form has his own archive of such parameters as date and time of each pressing period, weight and some other data manually introduced after finish of process. All the data are collected in SQL data base for further processing during reports generation.

