



SUPERVISORY CONTROL OF AN AUTOMATIC INSTALLATION FOR HEAT TREATING

The system manages a continuous line for carburizing, tempering, hardening heat treatments. The SCADA application communicates with a PLC Siemens SIMATIC S7 network using MPI protocol (server Applicom). Batch materials are linked to their treatment recipes and positioned on parking platforms. An asynchronous process logic verifies furnaces and washers availability to receive the materials. The system allows accessing the recipes database that contains batch identification and process data. The main template shows position and progress status of each process and provides a detailed view of each heat treatment element. At the end of any batch production, the application generates quality control reports containing batch identification data and temperature and carbon percentage charts for each phase of the treatment; in each report it is available a section in which it is possible to insert the measure of mechanical characteristics of produced material. Optionally, Sielco Sistemi offers a scheduling and optimizing batch system that allows sending of many consecutive recipes to the treatment line and obtaining the best sequence to use all the heat treatment elements in a rational and economic way.