

# Design and Implementation of Industrial Automation Control Systems: a Survey

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*Abstract-* The level of automation in factories and plants, and the need for their fast design and customization, increases steadily. These systems are often designed with various means, and controlled by heterogeneous embedded hard- and software. These circumstances raise the problem complexity and the time to be invested. The state-of-the art and the trends in design and engineering for the industrial automation have not yet provided an applicable solution to the mentioned issues. Hence a new European project tries to overcome the previous problems with a new component based approach for automatically linking the design and implementation phases. This document resumes and analyses the results of a survey conducted among the project industrial partners about their current design and implementation processes. What emerges is the need and the lack of connection, and even transformation rules, between the two aforementioned processes.