

# Domain Specific Views in Model-driven Embedded Systems Design in Industrial Automation

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**Abstract-** The work presented in this paper describes the concept of Domain Specific Views (DSVs) according to which the specification of the control behavior is provided to the control developer. The basic idea is to investigate different application fields, to try to find common rules and models in different fields, and finally to build around this an automatic or semi-automatic transformation into executable code. The original idea is defined in a bigger aim that is the definition of a model oriented to the so-called “automation component”, used to standardize the design of an automation system. In the paper, the investigation is discussed for the discrete manufacturing and energy production fields, while in the main project (MEDEIA FP7-2007-211448) other fields are investigated and many languages and methodologies to develop control, diagnosis and simulation of automatic systems have been analyzed.