

Title: Home automation

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Abstract: In the area of home automation and control based on data from input units, there are many commercial and hobby solutions. They offer different paradigms for representing control rules, such as description of trigger conditions and events, gate networks, etc. We analyzed the shortcomings of event-driven systems and, based on them, we designed and implemented an application which represents the rules as explicit transition function expressions. We showed how to formulate more complex control tasks in this different paradigm and had it pre-tested with a small sample of users. They agreed that it is very usable, even if perhaps more difficult to understand.

Keywords: automation expressions control application MQTT IoT ASP.NET