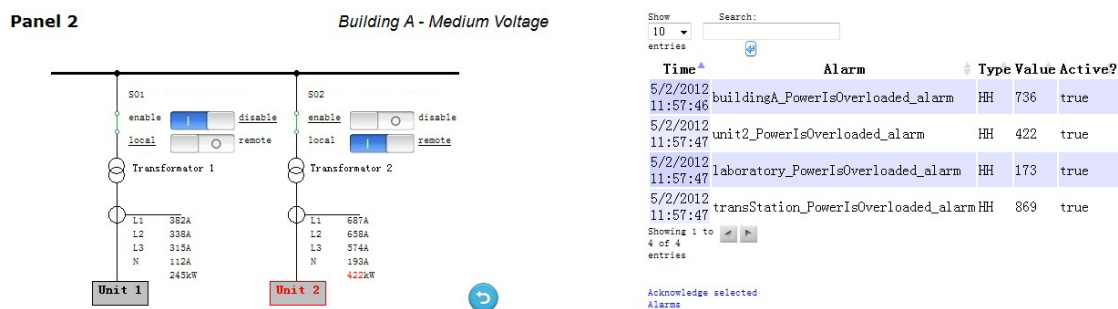




Investigation of the Utilization of Movisa for the Development of Visualization Solutions in the Domain of Energy Network Control

Abstract

Visualization solutions are nowadays widely adopted to monitor and control the technical processes. The visualization solution generated by visualization software may be required to run on multiple platforms. But using current visualization software the entire solution possibly need to be developed again in order to meet this requirement. To solve this problem, a new model-driven approach for development of visualization solutions -- Movisa is developed to equip different platforms with the same visualization solution by transformations. In order to consolidate the utilization of Movisa, this thesis focuses on design, develop and discuss the development of a case study in the energy network domain. Since no real energy network is available on hand, we analyze the visualization solution of an existing energy network to conclude requirements and features of an energy network. Based on this, a scenario of a fictive energy network is designed, an simple energy network simulator is built using SXCML to continuously provide process variables and realize the designed scenecs of the network, and a Web Service is created as the interface between the simulator and the visualizatio solution. In the end, a visualization solution is developed using Movisa, and it also successfully passes the test. During the development Movisa has shown big advantages in efficiency and usability, but also some shortcomings in user interface design and transformation limitation.



Display results of the generated visualization solution of the energy network

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