MIHAJLO PUPIN TECHNICAL FACULTY

Extending data driven model of software with software change request service. Enterprise Information Systems,12:8-9, 982-1006, DOI: 10.1080/17517575.2018.1445296.

Scientific Paper

Željko Stojanov, Dalibor Dobrilović, Jelena Stojanov

The dynamics of enterprise processes requires software systems that can easily change and adapt to new conditions. Effective maintenance of these software systems requires development of methods and tools for reducing maintenance costs and efforts, which increases the quality of software systems and efficiency of supported enterprise processes.

In order to integrate maintenance support in existing software systems, a novel approach for extending a model of data-driven software systems with a software change request service is proposed. The approach includes modelling extensible software architecture with the focus on: data-driven organization of software, user interface that follows data structure, software change request service, and initial change impact set.

The approach was verified through the implementation in a university environment. A qualitative exploratory study aimed at discovering advantages and disadvantages of the service, and identifying possible improvements was conducted with students.