The Design and Implementation of a Domain-Specific Language for the Description of Medical Devices

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THESIS

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Abstract

LeQuest develops interactive e-training modules to improve the competence regarding medical technology of medical professionals. The medical technology is analysed by LeQuest to develop training modules, but the analysis process and writing associated information can be performed more efficiently. This would reduce the required time and resources which could be invested in additional trainings and quality improvements. In the end, this will lead to an improvement regarding the patient's safety in health institutions. This work empirically evaluated the Spoofax Workbench by conducting an industrial case-study which consists of the design, implementation and evaluation of a domain-specific language (DSL). The LeQuest DSL is used as a tool for transforming the current analysis process into a more formalized process which does allow for objective observations, measurements and quantifiable information. Although the LeQuest DSL is not integrated in the current work-flow yet, the evaluation has shown that it is expected that the overall quality and efficiency of the analysis process will increase after the introduction of the DSL.

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Disclaimer

The work performed in this thesis contains confidential information which cannot be made public. In case you are interested in the contents of this thesis, feel free to contact LeQuest or me:

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