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Requirement Analysis for Emergency Management Software

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Abstract : Emergency management is a discipline of dealing with and avoiding risks. Appropriate emergency management software allows better management of these risks and has a direct influence on reducing potential negative impacts. Although there are several emergency management software products in the Czech Republic, they cover user requirements from the emergency management field only partially. Therefore, the paper focuses on the issues of requirement analysis within development of emergency management software. Analysis of the current state describes the basic features and properties of user requirements for software development as well as basic methods and approaches for gathering these requirements. Then, the paper presents more specific mechanisms for requirement analysis based on chosen software development approach: structured, object-oriented or agile. Based on these experiences it is designed new methodology for requirement analysis. Methodology describes how to map user requirements comprehensively in the field of emergency management and thus reduce misunderstanding between software analyst and emergency manager. Proposed methodology was consulted with department of fire brigade and also has been applied in the requirements analysis for their current emergency management software. The proposed methodology has general character and can be used also in other specific areas during requirement analysis.

Keywords : emergency software, methodology, requirement analysis, stakeholders, use case diagram, user stories
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