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Investigation of requirements reuse (RR) challenges and existing RR approaches (Article)

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Abstract

Reuse of software artifacts could bring substantial benefits to software developers and also other relevant stakeholders. It is observed in the literature that when reuse is introduced at the initial stage of RE process say, requirements level brings more benefits than at any other abstraction level as the benefits of reuse positively affects the subsequent levels. The aim of this paper is to investigate challenges and approaches of requirements reuse (RR) in the literature and we therefore, make our contribution to researchers and practitioners in RE field in threefold: (1) we present challenges of RR in the literature; (2) we categorize RR approaches into: (a) domainspecific (b) patterns-based (c) ontology-based and (d) general approaches and distinguish these approaches according to two design facets: design for reuse and design with reuse; and (3) we also present and analyze contributions of the four categories of RR approaches and highlight the gap and our future work.

Author keywords

Designs for/with reuse | RE | Requirements reuse | Software artifacts | Systematic reuse

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