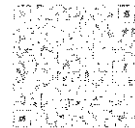


以BDD為基礎的軟體關鍵需求品質改善機制

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摘要

系統需求是擬訂軟體專案計畫書與後續開發作業的重要依據，也是軟體專案成敗的關鍵。由於大型軟體計畫部分系統需求項目存在情節描述不清、狀態定義不明確且缺乏可變動性等品質缺失，軟體製程無法有效改善這些品質缺失，經常造成專案成本超支、時程落後以及系統不符合需求等現象，進而成為專案失敗的關鍵。存有品質缺失的核心需求項目即為關鍵需求項目（Critical Requirement Items, CRI）。本文討論影響專案成敗的CRI，探究敏捷開發模式採取反覆與漸進式開發（Iterative and Incremental Development, IID）方法的優勢，且融入行為驅動開發（Behavior Driven Development, BDD）製程以識別CRI品質缺失，再以BDD及品質量測模式為基礎規劃一套CRI品質改善機制，用以評估、標示與改善CRI品質的缺失，適時提升CRI的溝通、確認與變動等品質特性，具體降低軟體開發風險。

關鍵詞：行為驅動開發、品質特性、敏捷開發、軟體專案、關鍵需求項目

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BDD-based Software Critical Requirements Quality Improvement Mechanism

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Abstract

System requirements are the important basis of the software project planning and follow-up operations, and are the critical factor of software project success. In large scale software system, some major requirements lack communication, assurance, and change etc. quality characteristics. Requirements quality defects often causes the planning over budget, schedule delay, and discontented requirements products, and endangers software development process. In this paper, quality defects requirement items are called as the Critical Requirement Items (CRI). The paper discusses the major quality factors which affect the quality of CRI, and analyzes the adaption relationships between BDD (Behavior Driven Development) and iterative and incremental development. Combined BDD with agile software development to collect CRI quality factors, and utilized quality measurement model to identify CRI quality defects. Based on BDD and quality measurement model, the paper establishes a CRI quality improvement mechanism. Applied the quality improvement mechanism to evaluate, identify quality defects and improve CRI quality. The quality of CRI communication, assurance and change can be concretely increased and software development failure risk can be reduced.

Keywords: behavior driven development, quality factors, agile development, software project, critical requirement items

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