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研发、测试

基础软件平台的正交组合测试方法设计与应用

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摘要 针对基础软件平台测试中的测试组合爆炸问题，利用正交表思想，提出了一种可用于组合优化的正交组合方法。此方法可用于基础软件平台的测试用例组合优化过程中，能够在保持覆盖度不变的情形下缩小测试用例规模，从而降低测试过程的成本与周期。通过测试过程实例表明正交组合方法优于传统的测试方法，方法在类似领域均具有较好应用前景。

关键词 正交组合 基础软件平台 测试组合 测试过程 组合爆炸

分类号

Design and implementation of orthogonal array testing strategy on foundational software platform

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Abstract

This paper presents an orthogonal chart design method，which is based on the theory of orthogonal chart（FSP-OATS），for the test of foundational software platform in order to optimize the testing combination.The method is applicable to the optimization of the test case combination to prevent the scale of the test cases from explosion with the effectiveness unimpaired，and consequently decreases the financial and time cost of the whole test course.The results of the three experiments indicate that this method can effectively restrict the number of the testing combination.What’s more，this method is also more capable in other fields familiar with what is mentioned in this paper than those ever applied.

Key words orthogonal array foundational software platform testing combination testing process combination bombing

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