Abstract

In an architecture-based software system Reliability allocation to different sizes of components plays a major role throughout the software product design phase, which has close relation ship with cost and reliability of software. In this paper dynamic programming algorithm is used to allocate the reliability and cost of each component for designing software using step length. Here we applied both minimum step length and maximum step length for allocation of reliability to different sizes of components. The result of our experiment show an optimal solution or near optimal to the problem of choosing the component containing the software can be achieved with lower cost.
Comparison of Two Methods Cost and Reliability for Components in Architecture-based Software System using Dynamic Programming


Index Terms

Computer Science
Software Systems
Keywords

Architecture-based Software  Software Reliability  Reliability allocation  Dynamic programming

Software development

software model

Reliability Estimation