SOFTWARE TESTING FOR COMPONENT BASED SYSTEMS

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Abstract

In the past few decades, in order to conserve the memory the programmers developed subroutines and those subroutines were placed in the library and were called if any other application required it and change it accordingly as per the requirement. But this was difficult when large system has to be developed and reuse was of main concern to save time and cost. Then it went on with the introduction of object oriented programming which used classes, framework and so on, which was not further a big hit because the interface and the implementation were coded together and it required white box way.

Developing the technology further evolved the software industry with new concept called Component Based Development (CBD), which is getting hold of significant interest in software community because of the benefits like reuse, less time to market; as a result there is a significant reduction in cost. Number of research has been done with regards to method analysis and design strategies in this area but with regards to testing only few researches has been done. As testing plays a key role for quality, this project aims in identifying a way of testing for a Component model, which addresses the issues and challenges that are faced during testing of these software components and at the time of integrating these components to form a system.