Abstract

In today’s software arena most of the software’s are developed using the component based software development methodology. Hence it is necessary to ensure that the developed software possess high reliability as perceived by the consumer before the software release. Many researchers have proposed various analytical models for assessing the reliability of
component based software systems, where the black-box testing procedure is used for reliability assessment for evaluating the software components where internal workings of the software components are not evaluated. So it is necessary for the software developers to use white box testing technique for ensuring high reliability of the software components which yields reliable software system. This paper proposes a renewed reliability engineering approach and it is elucidated with the real software system case study with GNU compiler.

Reference


**Index Terms**

Computer Science

Software Engineering

**Key words**

Software Components

Component Based Software Reliability

GNU Compiler