Abstract

Software reliability growth models were used since long time to access the quality of the software which was developed. Past few decades several papers describes reliability growth phenomenon. As the time progress, the number of errors detection and correction also increases. A Large effort is required in testing to increases the rate of detection and correction of error to increase the reliability of the software. Generally a Testing-effort is better described by number of persons involved; number of test cases used and calendar time. When the software is lagging by schedule time then there is need of automated testing tools to cop up with lagging. Use of automated tools can increase the testing efficiency to a greater extent. This paper we proposed a software reliability growth model which incorporates the Gompertz testing-effort function and an analysis is made on optimal release. Experiments are performed on two real datasets. Parameters are estimated. The results show our model is better fit than...
Software Reliability Growth Model with Gompertz TEF and Optimal Release Time Determination by Improving the Test Efficiency

other.

Reference

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**Index Terms**

Computer Science  
Software Engineering

**Key words**

- Delayed S-shaped models
- imperfect debugging model
- non homogeneous Poisson process
- Software reliability growth model
- testing-effort