Abstract

Predicting change prone class in software is a difficult software engineering process. Selection of wrong effort estimation can delay project completion and can incur unnecessary cost also. The aim of this paper is to provide a basis to improve the process of prediction of change prone classes. This paper reports a systematic review of papers published in journals and conference proceedings. The review investigates methodologies for predicting change prone class and fault prone class. The key findings of the review are: (1) behavioural dependency has been widely used for prediction of the change prone class, (2) there is need to develop a framework comprising of more features to accurately predict change prone class. This paper provides an extensive review of studies related to change proneness of software. The main goal and contribution of the review is to support the research on prediction of change prone classes. In addition, we provide software practitioners with useful estimation guidelines (for e.g. classes predicted to be more change prone require more effort).


A review of Studies on Change Proneness Prediction in Object Oriented Software

2000.
 - Di Penta, M., Cerulo, L., Gue?he?neuc, Y., Antoniol, G. An empirical study of the relationships between design pattern roles and class change proneness? in proceedings of

**Index Terms**

- Computer Science
- Software Engineering

**Keywords**

- UML diagrams
- change prone class
- behavioral dependency