Abstract

During the evolution of a software system, bugs are found and fixed, and also the system is adapted to meet the new set of requirements. In terms of software evolution, quality is related to the ease of the application to accommodate major changes. The continuing change process deteriorates the design of the system and, further increases the complexity of the software and the system becomes more difficult to evolve. A well designed software product is supposed to incorporate changes easily. So improvements in design structure may also determine the ease with which the software evolves. This paper analyzes the phenomenon with the help of software metrics. It employs process and product metrics to analyze a large software product to assess its internal structure and its ease of evolution. The metrics data indicates that the internal structure of the software product has improved over time and so has the quality of its software evolution.

**Index Terms**

Computer Science  
Emerging Trends in Technology

**Keywords**

Software Metrics  
Software Evolution  
Process Metrics  
Product Metrics