Abstract

The vital role of software process improvement is ability to measure the current state of system process and establishing improvement priorities. In addition, the focus on process improvement has increased the demand for software measures, or metrics with which to manage the software process. The need for such metrics is particularly acute when an organization is adopting new technologies and establishing best practices for the organization. This paper mainly addresses the needs of development and implementation of a new suite of metrics for OO design. Metrics developed based on literature survey, while contributing the software development processes, having serious criticisms, which includes the lack of a theoretical base this suggests that software metrics need to be constructed with a stronger degree of theoretical and mathematical rigor. Given the extant software metrics literature, this paper has a three fold agenda: 1) To propose metrics that are constructed with a firm basis in theoretical concepts in
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measurement and the ontology of objects, and which incorporate the experiences of
professional software developers; 2) Evaluate the proposed metrics against established criteria
for validity 3) Present empirical data from commercial projects to illustrate the characteristics of
these metrics on real applications, and suggest ways in which these metrics may be used.

Reference

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Index Terms

Computer Science
Software Engineering

Key words

OOD (Object Oriented Design) Metrics
RFC (Response for a
Class) WMC
(Weighted Methods per Class)

DIT (Depth of Inheritance Tree)