Abstract

Tools that extract metrics from object oriented code are widely used as part of static code analysis which acts as a feedback mechanism for the managers, developers and other stakeholders to improve the software quality. The software industry and academic research have confirmed the necessity of such tools and the impact they have on ensuring quality software. There is a transition of tools from measuring traditional software metrics to object oriented metrics as the focus has shifted to object oriented design and development. This paper presents a systematic review of both commercial and open source object oriented metric tools, highlighting the features supported and extensibility. The results are useful to arrive at the most suitable tool depending on the requirements of the stake holder. The results also identify a potential for an object oriented tool that can address the need for a tool that can work effectively across many object oriented languages and also be flexible for extending it to different languages and metrics.
17. JHawk(http://www.virtualmachinery.com/jhawkprod.htm)
25. JMT(http://wwwivs.cs.unimagdeburg.de/sweng/agruppe/forschung/tools/)
28. Analyst4j (http://www.codeswat.com)
29. Dependency Finder (depfind.sourceforge.net)
30. Eclipse Metrics Plugin 1.3.6 (http://www.easyeclipse.org/site/plugins/metrics.html)
32. Semmle (https://semmle.com/ )
33. Understand for Java (https://scitools.com/ )
36. EssentialMetrics(http://www.powersoftware.com/download/ )
37. JDK 1.8(http://www.oracle.com/javase/downloads/jdk8-downloads-2133151.html)

Index Terms

Computer Science
Software Engineering

Keywords

Object-oriented, metrics, tools, systematic review.