Abstract

Capturing the quality of software and detecting sections for further scrutiny within are of high interest for industry as well as for education. Project managers request quality reports in order to evaluate the current status and to initiate appropriate improvement actions and teachers feel the need of detecting students which need extra attention and help in certain programming aspects. By means of software measurement software characteristics can be quantified and the produced measures analyzed to gain an understanding about the underlying software quality.

In this study, the technique of code profiling (being the activity of creating a summary of distinctive characteristics of software code) was inspected, formulized and conducted by means of a sample group of 19 industry and 37 student programs. When software projects are analyzed by means of software measurements, a considerable amount of data is produced. The task is to organize the data and draw meaningful information from the measures produced, quickly and without high expenses.

The results of this study indicated that code profiling can be a useful technique for quick program comparisons and continuous quality observations with several application scenarios in both industry and education.

Keywords: code profile, static code analysis, software metrics