**Measuring Software Engineering**

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Introduction

The objective of this report is to consider the ways in which the software engineering process can be measured and assessed in terms of measurable data, an overview of the computational platforms available to perform this work, the algorithmic approaches available and my opinion on the ethics concerns that are involved with this kind of measurement.

Before we can look at these different ways of measuring and assessing the software engineering process we must first ask, in terms of the engineering process, what is software measurement and analysis? In my opinion it involves the collection of quantitative data for the purpose of aiding the employer/administrator with the current software project and with future decisions in the software engineering process to improve efficiency, quality and understanding. Collecting data on a current software project is necessary for building a working product which meets the functional requirements it was given as well as for tracking its progress. Efficiency can be improved as if the software engineer is being assessed and evaluated, there would be little room for slacking and also allows the employers to asses which employees are most efficient and effective and can help or adjust teams/developers to improve productivity . Measurement allows us to calculative the quality of software projects. Quality will naturally be improved if the software engineer is being assessed. Measurement also enables the employer to figure out who his best employees are and also to let go of ones who are underperforming for the benefit of the project. Measurement and assessment will also help improve our understanding of the software engineering process as it is an incredibly hard process to predict in terms of how successful a project will be and the amount of time projects can take.

As we now understand the purpose of measurement and assessment in software engineering, it is clear that it is crucial in improving the software engineering process. We now look at what is actually measured and the tools available to us to measure and assess this data. However this kind of measurement brings with it ethical issues which we will discuss later in this report.

Measurable Data

In my opinion there are two types of measurable data in the software engineering process. Data involving the software itself and how it meets functional requirements and other design criteria, and ‘Admin’ data involving the development team and progress of the project itself.

Bibliography

<http://www.cs.umd.edu/~mvz/mswe609/book/chapter3.pdf>