CS840 Project 5:

Constructive Cost Model

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4-2-2016

Abstract – Software engineering is the process of applying software development tools and techniques to develop a useful program. This program might solve a novel problem, outperform a competitor in some category, or in some other way deliver a product that is useful to someone. At some point in this process, software development is likely to take place, and the cost of a software engineer’s hourly rate can make this quite dear indeed.

Where money is spent, science is soon to follow, and the development of software is no exception. Constructive cost modeling reveals the factors which determine the relative challenge and cost of undertaking a given software project, based on perceived production challenge factors such as how much specifications are likely to change, how effective the software engineers are in various capacities, and how well the undertaking is understood.

# Introduction

Constructive Cost Modelling (COCOMO) is based on equations that have been developed by observing many software development projects of diverse types over the years. Through this analysis, effective correlations were formed between the configuration of the project, characteristics such as the analytical capabilities of the developers and the number of logical lines of code to be produced (LLOC) and cost factors for the project, such as number of required developers, total cost of the project, and number of months to produce.

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