INDIVIDUAL PROJECT ESTIMATION THROUGH PRESTO A PROJECT ESTIMATION TOOL

A THESIS PROPOSAL

By

Jitender Miglani

Thesis Committee:

Philip M. Johnson, Chairperson Wesley Peterson Edoardo S. Biagioni

Version 0.0.1

Abstract

Effective software project estimation is one of the most challenging and important activities in software development. Usually, Project estimations are done in large organizations to determine the cost and time required to complete the project. This requires collection and analysis of large amounts of data and above all the correct interpretation of data.

With the introduction of PSP in 1995 and rapid evolvement of a large number of small Internet organizations, focus of software process improvement started shifting from large Internet organizations to individual developer. In PSP, developers gather their own measurements related to their work products and use these measures to drive changes in their development behavior.

Even though PSP is very useful for improving the productivity of a developer, it still requires collection of large amounts of data by the developer. That's why the tools like LEAP were developed to help the developer collect and analyze the project data. However, that is still viewed by developers as a distraction from the task at hand. So, The need for a total automation of data collection and analysis process were felt.

This thesis investigates whether it is possible to develop a tool which automatically collects the project size and time data without giving any extra overhead to the user and still produces useful project estimation results. How can we achieve the total automation in the process of data collection? Can the tool work standalone, like LEAP, or a deep integration with some kind of development enviornment is required to have the total automation of the data collection process.