Reengineering a Software Review Process with the Functions Based Process Analysis (FPA) Method

Claude Strieker, Jintae Lee

Abstract

With the current popularity and success of the World Wide Web, the question. How can the WWW technology improve existing processes, is in the forefront of many managers' mind. This paper examines this question in the context of the software review process and proposes a method that helps us systematically answer it. The method, Function-based Process Analysis (FPA °), represents a process as a function lattice, in which the functions that the process is to serve together with the subfunctions that implement these functions form a lattice. In FPA a technology like the WWW is also represented as a function lattice. FPA then exploits the uniform representation of both a process and a technology to help us systematically identify and examine the aspects of the process that can benefit most from the given technology. The paper illustrates these claims by applying the method and generating WWW-based alternatives to a software review process currently employed at a major company. More valuable than the specific alternatives generated, however, is the systematic way that the method provides for examining the relation between a process and a technology as well as the framework in which the relevant issues can be placed.

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