A Software Quality Assurance Tool For Process Using CMMI

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Abstract

ABSTRACT - In the current marketplace, there are maturity models, standards, methodologies, and guidelines that can help organizations to improve the ways of doing business. However, most available improvement approaches focuses on a specific part of the business and do not take a systemic approach to the problems that most organizations are facing.

The Capability Maturity Model Integration [CMMI] focuses on improving software and systems. CMMI consists of best practices that address product development and process improvement. It addresses practices that cover the productøs life cycle from conception to delivery and maintenance. There is an emphasis on both systems engineering and software engineering and the integration necessary to build and maintain the total product (Chrissis, Konrad, & Shrum, 2005) (Hefner, 2000).

In this paper, we propose a software tool (prototype) to enhance the way projects control its quality processes using CMMI principles. The tool is evaluated by specialized organization in the UK (Blue Eye Consulting) the BEC used the tool in CSR project. The tool automates the activities of the process and product quality assurance process area under CMMI . It helps to evaluate the performed processes, work product against standards and procedures. It is based on identifying and documenting noncompliance issues. It helps to ensure that noncompliance issues are addressed. The tool ability to register noncompliance issues formally through a database and allocating dates and owners helps in integrating the project issues and improving across team communications.