

Software process management supported for simulator: an application to transition workflow of the RUP

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The software process defined as product is a results of a team effort very important for organizations life. With strong link with the develop environment, the software process is a key activity for quality assurance of organizations products. Than, management decision that involve process management (definition, performance and controls) are considered difficult and important actions to the maturity of developing organizations which adopted process *framework* as CMMI or ISO.

In order, is “good-definition” of software process and an adequate follow-up during theirs performance has several implications in software development environment-SDE. Development teams have the compromise to use very often methods, technique and tools that help to setup the management activities of the software process and the support of the development theirs products.

This article presents an application of the management model from Araújo (Araújo, 2005) where it is possible to see the integration of the simulation and management in an unique system, as an example, bigger and better control of the performance and optimization of process (such as resources, activities sequences, job the scripts, teams definition for development etc).

The methodology includes the paper revision about management and simulation of software processes, and a discuss of the implementation of the processes of RUP – Rational Unified Process (Transition phase). The viability of the integration of the model proposed is discussed looking forward the environment requirements of the management activities, estimating the different aspects of software project such as cost, effort, timing etc).

This article shows some results in the application of the chosen model in the environment proposed, comparing with those presented by Boehm (Boehm, 2000). The comparison shows the viability of the simultaneous use of the simulation with the management of software processes with support of modeling, performance and control of process.

Software processes developments are very dynamic and are influenced by the pressure of the competitiveness for delivery products of software with quality in time and reasonable cost. To implement alterations in the software processes they finish being difficult, expensive and they can introduce errors. In this direction this work sample that

the simulation comes to provide with viable form and cheap application to evaluate and to reduce this risk through you analyze quantitative of modification of processes considered in terms of performance of the process in diverse experimental scenes.

The article shows also that the simulation gives support, cheap and viable for the application to evaluate and to reduce the risk thorough the quantitative analysis of the change of the proposed process looking forward performance in different situations.

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