

Abstract ID: 9225

Title: Practical Report: CMMI Measurements and Analysis based on Agile (Scrum) Method

Abstract Text: Software industry is one of the most empirical industries due to its high dependence on technology and people. Each software company adopts a specific development methodology, and furthermore seeks to build a system for its process improvement by adopting one or more Software Process Improvement (SPI) models. CMMI is a process framework which is widely adopted by software and systems development companies, while Scrum is one of the more recent project management agile method whose adoption is growing rapidly. CMMI is basically a process improvement framework which provides a set of processes for software and system development management, Scrum can be thought of as an iterative project management framework for development activities, CMMI has a wider scope and different aims to those of Scrum and covers production support, maintenance, product implementation and application transition type projects as well.

Scrum and other agile methods have clearly appeared in 2001, This paper shows how to implement the Measurements and Analysis (M&A) process area of CMMI model and clarify how M&A can be achieved in the agile (Scrum) organization. Most of the promising objectives of any software development method or process are delivering working software on time, quality and budget. Software Engineering Institute (SEI) has paid a lot of efforts to mostly satisfy these objectives in its process improvement models, and lately CMMI version 1.2 has been released. Nevertheless, the world becomes convinced with adding another objective, which is delivering a business value to the customer. Along the years, software engineers have proposed several methodologies

Agile is the most known and latest proposed development method that can achieve this objective beside the other fore mentioned objectives.

Our objective in an agile environment is not to do software measurement. We must learn to build reliable software measurement process based on valid software measurement tools. If we try to do too much too soon, we will likely fail. Basically, software engineering measurement is not a resource issue; it is a commitment issue. The bottom line is that all the usable measures from practicing Scrum on a project could be used to address the practices of M&A process area. Infact, the alignment of these measures to the information needs is very visible due to the very nature of "value-based" focus of the scrum method. In our research, we found that there need not be any additional measures that are required to be "invented" to fulfill the M&A goals from CMMI model. Usage of existing ones is enough and we will share those mappings and arguments with you for your application and subsequent extension to other process areas in the model. We are also going to share our learnings from carrying out these discussions/learning events with you.