Keeping It Real

I got my first introduction to *real* project planning 10 years ago when Capability Maturity Model® Integration founding father Watts Humphrey came to Hill Air Force Base to pilot the Team Software Process℠ (TSP℠) with our TaskView project. As a project manager with more than 11 years of software experience, including three years in our software engineering process group and as a certified Personal Software Process℠ instructor, I was confident the plan I had led the TaskView team to construct was flawless. Before Watts' visit, we had spent several days defining all of the product components and used a modified Delphi approach to estimate the duration of each one. We had determined resources, made assignments, built a detailed Gantt chart with four dozen tasks, identified all the dependencies, planned for every milestone, and determined the critical path. We knew each and every deliverable, its customer, format, and need date. We were ready, or so I thought.

Over the next week, I watched as Watts worked painstakingly with our team members to create a *real* project plan, one that each engineer not only helped to create, but could use to guide his or her daily activities. Our meager four-dozen task Gantt chart was replaced by a more than 400-task Earned Value Plan, estimated both by a top-down and bottom-up approach; our risks were identified, recorded, categorized, prioritized, and assigned for follow-up, and a never-before-conceived-of quality plan was generated.

All of this was for a six-month project of six people ... and the results of this launch were staggering.

This plan was the basis of each weekly review. We were able to tell immediately when tasks were falling behind schedule. TaskView avoided or mitigated all of its critical risks. The quality of our product surpassed anything we had ever produced.

While I had known for several years that project planning and tracking were critical, it was not until this experience that I realized how useful these plans could be. Not only did they guide our actions, but they provided a basis for stability when requirements inevitably changed. In one case, for example, I was able to use the planning data to determine quantitatively that I could loan one of our engineers to another team without risking the TaskView delivery. Since that time, I have been a staunch advocate not only of the TSP but of taking the time to do *real* project planning. These solid, effective plans are worth all of the effort to create and maintain them.

This month's CROSSTALK is filled with wonderful guidance for the critical tasks of planning and tracking software projects. First, in his article *Software Tracking: The Last Defense Against Failure*, software veteran Capers Jones details four *worst practices* leading to catastrophic failure and even litigation on software projects. With his usual prowess, Capers succinctly uncovers the mines in the minefield so that the rest of us can avoid them!

My two favorite articles in this month's issue are *Does Project Performance Stability Exist? A Re-examination of CPI and Evaluation of SPI(t) Stability* by Kym Henderson and Dr. Ofer Zwikael (spoiler alert: It does eventually), and Walt Lipke's *Schedule Adherence: A Useful Measure for Project Management*. Both articles focus on Lipke's new Earned Schedule measure: an exciting, innovative, and effective new way to make better use of Earned Value planning and tracking data.

As we all know, the most unpredictable portion of any software development or maintenance cycle is software testing. Dr. David J. Coe explains how to make testing more efficient and effective in *A Review of Boundary Value Analysis Techniques*.

Real project planning and tracking begins with making good estimates, and in the capstone article, *Truth and Confidence: Some of the Realities of Software Project Estimation*, Phillip G. Armour details the many issues that make software project estimating unusually difficult and suggests a fascinating new view of the process (and outcome) that makes estimates more usable.

To keep the attention of the *techies*, there is also an article from David Premeaux, discussing *VoIP Softphones*.

This month's articles will help guide us in making and following highly effective and *real* project plans.

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