

Other Disciplines Lend Ideas to Project Management



Most CROSS TALK readers have acquired years of school learning to respect the structure provided by the academic subjects that underpin software development. As Einstein said, “You remember the magnificent structure, on the lofty staircase of which you were chased about for uncounted hours by conscientious teachers.” Like Einstein’s departure from Euclidean geometry, the articles in this edition depart from conventional approach, and show how techniques developed in other disciplines can be adapted to software project management.

In *Project Clarity Through Stakeholder Analysis*, Larry Smith of the Software Technology Support Center describes the need for stakeholder analysis and illustrates techniques with case studies. Successful management of software projects requires a keen awareness of the environment, selection of the right tools and team for the situation, and leadership that aligns project objectives and activities with stakeholder expectations.

Walt Lipke and Mike Jennings of the Oklahoma City Air Logistics Center merge techniques from statistical process control and earned value data to analyze project performance and improve cost and schedule estimates. Arlene Minkiewicz, provides a primer on software estimating basics then shows how software cost estimating tools can help an organization mature project planning, process focus, and quality management key process areas. Louis Poulin, president of GrafP Technologies Inc., applies system safety engineering principles to anticipate problems and prevent them from occurring in information technology projects. Each of the above borrows concepts from more traditional disciplines to develop methods to improve software project management.

Donald Reifer, Jeff Craver, Mike Ellis, and Dan Strickland address the question of the year in their article, *Is Ada Dead or Alive Within the Weapons System World?* They summarize the results of a study to shed light on the long-term viability and staying power of Ada. Comparisons of Ada and C/C++ compiler/tool availability and training support are shown along with discussion of current trends.

Paul Kimmerly then describes the leadership required to keep the “wind in the sails” while on the journey from the project centered CMM® Level 2 view to the broader organization-wide view of a Level 3.

Finally, in BACK TALK, Dr. Dave Cook and Les Dupaix combine the art of poetry with science of software development for a humorous look at the world of defense acquisition programs.

Collectively this month’s articles communicate the need to go beyond the basics to creatively use fundamental principles from a variety of disciplines optimized for the situation. As director of the Air Force’s Computer Resources Support Improvement Program, I am privileged to work with software professionals exploring new approaches to development, maintenance, and management of software intensive systems. Their creativity and intellect has paid off—more mature organizations, efficient tools, and a better bottom line. Air Force process improvement has delivered a return on investment on the order of 15:1 while improving quality. I hope this CROSS TALK spawns ideas that help make your software project successful.



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