



# Process Maturity Pays Off in Many Ways

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When I accepted division chief responsibilities for the Software Engineering Division (TIS) at the Ogden Air Logistics Center, Hill Air Force Base, Utah,

the process improvement initiative had already begun. There was not a great deal of cost benefit data available at the time to document a business case for the Capability Maturity Model (CMM) style of process improvement, but there was considerable management commitment and momentum. I made a conscious decision to trust the judgment of the TIS management team and my predecessor by choosing to continue this effort. However, improvements to the way we were proceeding needed to be made.

The first improvement was to implement CMM process improvement as a planned project. Improvement is not without cost. It takes additional time and resources. It requires planning, execution, and tracking. The

Software Engineering Process Group role was refined by giving them the task to create an implementation plan in cooperation with the management team. Management met on a regular schedule to review progress, refine the plan, and apply the necessary talent to move forward. As we defined our plans and measured our progress, there was an increase in our speed and ability to achieve the goal.

The second improvement was to the Quality Engineering Support Team (QuEST). They functioned in a staff role to TIS, independent of managers and projects; however, they were focused on verifying the quality of products. Because their role duplicated the existing testing functions, they were not achieving the desired results. The QuEST role was therefore redefined to verify the application of our defined processes. This not only improved the quality of our products, it enforced the applications of our processes. We were forced to make processes that worked because we knew we would be judged

by them. In addition, it reinforced the organization's commitment to process improvement. In retrospect, it appears this is an essential ingredient to success because other government organizations that did not have this function and that were ahead of us in process improvement fell away from their initial commitment. Continuous self-assessment is essential to process improvement.

Now that TIS has been assessed at Level 5, I have noted a change in morale. There is a greater level of confidence and employee satisfaction—a sense of accomplishment and an understanding that government employees can be and are some of the best software engineers available. Now the data has been collected to show a business case for CMM process improvement. Our customers enjoy a cost benefit with greater predictability and higher quality. I want to see continued senior leadership support for the kinds of improvements we have made. It was a good call on their part, and we have the data to validate their decision. ♦

## About This Issue

This *CROSSTALK* special issue addresses two of our most highly requested article topics: the Capability Maturity Model (CMM) and process improvement lessons learned. I extend a special thank you to the Ogden Air Logistics Center, Software Engineering Division (TIS) for sharing its lessons learned and words of advice in this month's issue.

TIS is the first government organization to achieve a Level 5 CMM rating. With over 500 employees, 420 of whom are dedicated to software development and sustain-

ment, TIS is the largest software organization to achieve the Level 5 rating. TIS develops flight programs and automatic test equipment for aircraft and weapons systems such as the F-16 Fighting Falcon, the B-52 Stratofortress, the B-1 Lancer, and the Minuteman missile. TIS is also the parent organization of the Software Technology Support Center, which publishes *CROSSTALK*.

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