

COTS: The Ideal World



Sit back, relax, and enjoy a ride in the ideal world as seen through the eyes of a software engineer. You wake up at 9 a.m. and get ready for your three hours of work. Breakfast consists of ham, eggs, toast, and a glass of milk; a breakfast that has no fats, no cholesterol, and will help you live another 200 years. You step to your spaceport and fly your car to work. When you arrive, your car folds into your briefcase. Finally, you are ready for three hours of monitoring the company computer as you wonder how your grandfather worked an eight-hour workday. And of course, every organization is CMM Level 5.

Sounds too good to be true, right? I consider commercial off-the-shelf (COTS) products to be like the ideal world for many system program offices and program managers; however, this is not the real world and COTS is not the silver bullet for software. Paul Maritz's interview on page 4 explains how Microsoft evaluates, selects, and integrates COTS software into its process. He states that it is important for Microsoft and their customers to use "standardized building blocks" for the products that they use and sell. However, any cost savings with using an "off-the shelf" product can easily be evaporated when layers of customization are included. He also gives some lessons learned to those interested in using COTS, especially to those in the government. Make the decision to use COTS a "top-down decision" so that the whole organization is using the same basic products, he advises, "Be willing to re-engineer your processes, if need be, to fit within the bounds of the capabilities of the software you are buying."

Fortunately, the government has seen some benefit in using COTS-based products, and is using Carnegie Mellon University's Software Engineering Institute to study ways in developing and supporting COTS-based systems (CBS). Lisa Brownsword, Patricia Obendorf and Carol A. Sledge's article, *An Activity Framework for COTS Based Systems* on page 8 summarizes the essential factors that distinguish CBS and describes a preliminary framework that captures new and changed activities necessary for a CBS approach and describes a suitable migration path.

Unfortunately as government agencies start using COTS and government off-the-shelf (GOTS) products, the program managers must realize the insufficient information and usage on the products' capability. Dr. William H. Dashiell and Phil Brashear's article, *Evaluating COTS/GOTS Software: Functional Test Criteria* on page 17 paints a scenario between a program manager and a testing expert and how they determine the importance of developing and writing testable requirements for the program.

Finally, this issue of **CROSSTALK** should enlighten readers of the shortfalls and benefits of using a COTS-based system for software. As the Department of Defense idealistically prepares for the future, it must come to understand the best way to travel there and how to make the pieces fit.



Lynn P. Silver
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CROSSTALK welcomes **Lt. Col. Glenn Palmer**, Director of the Computer Resource Support Improvement Program (CRSIP), Hill Air Force Base, and Utah. As CRSIP Director, Lt. Col. Palmer directs the transition and adoption of technologies by Air Force organizations to enhance their ability to acquire, develop, manage, and support mission-critical, software-intensive systems. Lt. Col. Palmer moves to Hill from Lockheed Martin in Ft. Worth, Texas where he served as Defense Contract Management Agency Program Integrator for the F-22 fighter program. He has 18 years experience in Air Force maintenance, engineering, and program management positions. He received his bachelor's degree in Mechanical Engineering from the University of Kentucky, a master's degree in Operations Research from the University of Northern Colorado, and a Masters of Business Administration from Creighton University.