



## You're the Judge

Defense AT&L presents the first in a new series featuring cases that center on ethical dilemmas, and invites you to be the judge. What would you

do in similar situations? (Remember that if you're faced with an ethical quandary, before taking any action, you're strongly encouraged to consult with your general counsel or, if in the military, your judge advocate general representative.)

**L**onette Bryan served as a contract specialist at the General Services Administration from December 1997 to November 2002. As a full-time federal employee, she was responsible for overseeing the proposal, award, administration, modification, renewal, and termination of the Software Professionals, Inc. contract with the federal government.

Software Professionals, Inc. provided computer technology professionals to the federal government on a contract basis for five years. The contract expired in April 2003.

Bryan terminated her employment with GSA in November 2002 and began working for Software Professionals in February 2003. Between March and August 2003, Bryan, on behalf of Software Professionals, met with personnel in her old office at GSA several times, seeking to extend the term of the contract that she had worked on while at GSA. Later, she tried to persuade GSA to award Software Professionals a new contract.

### *You're the judge:*

*Does Ms. Bryan have a problem here? Did she commit a crime?*

*The verdict is on page 50.*

Collaboration is essential to company success. Design and engineering are treated with equal importance, and development teams work together on a daily basis. Customers are part of the development process, and new ideas sit out in the open so customers can visualize and comment on a concept at varying stages of development.

Collaboration is essential to company success. Design and engineering are treated with equal importance, and development teams work together on a daily basis. Customers are part of the development process, and new ideas sit out in the open so customers can visualize and comment on a concept at varying stages of development.

### **Project Mercury**

Project Mercury, the American effort to put man into space between 1958 and 1962, evidenced the attributes of an ideal organization—strong communication, commitment, and collaboration. Artists and writers closely communicated with the American public to convey goals, expectations, and possible outcomes. Astronauts held press conferences to explain their training, and a public affairs specialist trained with the astronauts, serving as a bridge between the public and Project Mercury.

Project leadership committed to three big ideas: orbit a manned spacecraft around Earth; investigate human ability to function in space; recover both personnel and spacecraft safely. These ideas were challenging but seemingly attainable, and success or failure could be measured.

A highly talented team of engineers, storytellers, scientists, and operators collaborated. People like astronaut John Glenn and rocket scientist Wernher Von Braun were key to program success. It was a time of unprecedented innovation, where the integrated team pushed the state of the art to build rockets, space suits, equipment, and

## You're the Judge: The Verdict (from page 38)

Yes, Ms. Bryan has a problem, and she did commit a crime.

On April 7, 2004, Bryan pleaded guilty to one count of violating 18 U.S.C. § 207(a)(1), one of the post-government service employment communication restrictions. The Eastern District of Virginia handled the prosecution.

This law prohibits former federal personnel from representing someone else before the federal government on particular matters involving specific parties that he or she worked on personally and substantially while in the federal government with the intent to influence the government's decision.

In her official capacity, Bryan worked on the contract between the government and Software Professionals and its terms, including termination. She didn't commit a crime when she went to work for Software Professionals. Only when she represented Software Professionals before the government to extend the term of the existing contract did she violate 18 U.S.C. 207(a)(1) because it was a matter she had originally negotiated as a federal employee.

On July 23, 2004, Bryan was sentenced to two years' supervised probation, substance abuse treatment, and a special assessment.

oping a new systems engineering course consistent with the direction taken by DoD—and largely to help myself understand and explain that new direction—I developed a new model. This model captures the 16 processes listed in the *DAG*, provides a generic representation of the series of phase-based activities and can be correlated to the legacy DoD systems engineering model. For ease of reference in discussion, I call it the Comprehensive Systems Engineering Process (CSEP) model.

### Proposed: A New Model for DoD Systems Engineering

In Chapter 4 (“Systems Engineering”), the *DAG* introduces eight technical management processes and eight technical processes. In modeling those 16 processes—and in developing a generic representation of the phase-based series of V-shaped activities—I adapted a model contained in ISO/IEC 15288. To reconcile with the legacy model, I

took some literary license with respect to a couple of the *DAG* processes, as shown in Figure 1 and described below:

- The parenthetical “& Control” is added to the technical assessment process, indicating the need for corrective action if assessment of project status or outcomes indicates deviation from planning baselines.
- The requirements development process is decomposed into two subordinate processes to capture the overlap of the acquisition/systems-engineering domain with the Joint Capabilities Integration and Development System (JCIDS).
- The technical management processes in the CSEP model are equivalent to the systems analysis and control portion of the legacy model. Note that in the CSEP model the technical processes are always implemented within the encompassing framework of the technical management processes. Collectively the technical management processes form the executive—or control—logic that steers system development to meet project or phase objectives.

The technical processes are depicted in a V-shaped pattern. Again for ease of reference—and as a description of its function and power—I call this V-shaped model of the technical processes the V-9 Engine (Figure 2). The blue blocks in the V-9 Engine capture the legacy model's three primary sequential process steps on the left-hand side, plus associated steps inferred or adapted from the legacy model and the ISO/IEC 15288 model, respectively, on the right-hand side.

### Powerful Visualization with the V-9 Engine

The V-9 Engine provides a powerful visualization of key process interfaces. The concept of interfaces between different levels in the system hierarchy is particularly important in the system-of-systems or net-centric context. It is important that the systems engineer responsible for developing a system or subordinate element view it from the outside, or from the perspective of the larger architecture in which it is intended to operate.

The V-9 Engine illustrates domains of responsibility within the technical processes. The subdivision of the requirements development process into two subordinates portrays interfaces of a project team with the JCIDS process, with project or engineering managers at a higher level in the system hierarchy, or with the acquiring organization where an acquirer-supplier agreement exists. The results of the first subordinate process—requirements definition—governs the development (or manufacturing) effort and establishes the “handshake” regarding project scope and deliverables between the project decision authority and the development team. At the end of a phase of development, review of products and test results during the transition process allows the decision authority to determine if all requirements and agreements have been met;