AT SCIENCE APPLICATIONS INTERNATIONAL CORPORATION (SAIC), CAPE CANAVERAL OFFICE, WE'RE USING A PROJECT MANAGEMENT TOOL THAT FACILITATES TEAM COMMUNICATION, KEEPS OUR PROJECT TEAM FOCUSED, STREAMLINES WORK AND IDENTIFIES POTENTIAL ISSUES. WHAT DID IT COST US TO INSTALL THE TOOL? ALMOST NOTHING.

OUR TOOL IS A STORYBOARD. THE BASIC INGREDIENTS include a 12-foot-long tack board strip on the wall, a pack of thumbtacks, paper, and a writing instrument. We use our storyboard to create a paper prototype of our product. Graphic, sequential depictions give a quick project overview while breaking down the product into its major components.

Though it could be applied to any type of project, we have found that the storyboard concept is ideally suited for software development. For example, many members of a software development team are specialists at coding and can get caught up in a particular function or aspect of the project. The storyboard helps them conceptualize the relationships between project tasks and the bigger picture. Seeing the big picture was a particular problem for us on our current project, so we posted a copy of a story by Dr. Michelle Collins, “Lessons From the Great Masters” (ASK 3), to try to help the team think at a higher level and ask the right questions: What is the operational concept of this product? What do we really need to do first?

Most of the board, however, reflects the major elements of the project. We tack sheets of paper on the wall in the sequence that users will likely perform their tasks. At first, we sketch out ideas with a few words
or graphics; but as our storyboard progresses, we replace the words with screen shots and major elements begin to evolve "down" the storyboard.

The storyboard process helps promote brainstorming, highlights missing tasks, and allows the team to incorporate changes prior to traveling too far down a particular path. It also helps us to stand back from our work and ask, "Is this the most logical sequence for the way we're doing things?" We physically move pages around and put them in a different order as we resolve issues. The number of revisions done to the storyboard is based on a project's schedule and budget constraints.

The storyboard also gives us maximum exposure. During our "graffiti phase," anyone in the organization (potential users, customers, and team members alike) can learn about our entire project by walking down the line of papers conveniently located in the office hallway. When they see something that doesn't make sense to them or they think of a feature that might be added, they write down their comments directly on the sheet of paper on the wall. For example, one person wrote on the storyboard, "When a procedure is executed where are the results stored?" Thanks to this comment, we realized we were so focused on the procedure itself that we hadn't thought about where the documentation of the procedure would be stored. How could we track and display the information without cluttering the screen? Would our repository be on individual hard drives or a shared network? The comment helped us to step back from our work and look at it from a user's perspective.

We have a designated keeper of the storyboard whose job it is to evaluate those comments and meet with the team to see which ideas should be implemented into our planning. If we decide to use an idea, it becomes part of our evolving storyboard. When we recognize good ideas that are outside our current scope, they are consolidated and tacked at the end of the storyboard on a separate page called "Future Features."

By using the storyboard, we get many people involved in providing constructive feedback and, most importantly, we make certain that team members aren't going off in different directions. The storyboard keeps us all working toward the same goal.

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**TRADING PLACES**

As part of NASA's newly established Industry Exchange Program (IEP), CHERYL A. MALLOY began a nine-month assignment with SAIC in December 2002. IEP promotes the exchange of ideas, best practices, and operational insights between NASA and its industry partners by arranging temporary assignment exchanges. During her tenure at SAIC, Malloy had the opportunity to work with several program and project managers at SAIC, including WILLIAM COOLEY, a technical analyst who specializes in merging software with physics. Malloy, a 15-year NASA veteran, previously served as Expendable Launch Vehicle Mission Integration Manager.