

Post-it management

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Engineers tend to ignore the use of verbal analogy to get their points across, which is a shame. A little humanity makes even the most difficult of situations a bit easier to bear and often saves long-winded, nearly incomprehensible exchanges. In that spirit, consider a typical engineering project, in the guise of a purely fictional children's book, "Bob and the Big Banana."

The story is about Bob's favorite fruit and desert — bananas. As a reward for excellent behavior, his mother takes him to the ice-cream store for a frozen version of his favorite desert. Bob is somewhat obsessed and dresses only, appropriately enough, in yellow. Of course, his best friend Alfred loves apples and dresses in the corresponding red color. Each page of the richly illustrated book contains several references to the colors yellow and red and the color-coded characters.

But the simple tale is not to be. The editor at the last minute changes his mind and the author gets a Post-it note, "Lose the banana." When pressed for a reason why, the editor mumbles something about political correctness and points at the note.

Let us consider the cascading effects of "lose the banana." First, all illustrations

Edited by Lawrence Kren

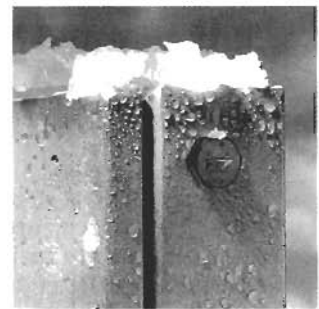
are now incorrect and the author must choose a new fruit. A simple substitution won't work. Even a word-for-word exchange will be hard. The story tightly links the context in which the colors and fruits appear. The note was one line, but the impact is immense. No work is salvageable.

Making the leap to reality, an engineer has just finished the design of a part that contains two identical holes. The design meets all required stress and dimensional analysis specs. Also completed is the manufacturing bill of materials, which details fixtures and tooling. The drills, taps, and countersinks are on order. The engineer is about to write the installation manual, the last phase of the project.

Along comes the boss who says, "Make one bolt bigger." The engineer cannot refuse. The boss can get indignant by correctly stating, "The engineer refused to change one lousy bolt." Are you willing to risk firing for just one bolt? How does the engineer carefully explain the cascading implications of just one small change? Unfortunately, there are no easy answers. **MD**

*Before joining industrial-crane maker B.E. Wallace, Mr. Finkel worked for **Ansys, Ansoft, Bentley Systems, Structural Research and Analysis, and Marconi** (formerly **FORE Systems**).*

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