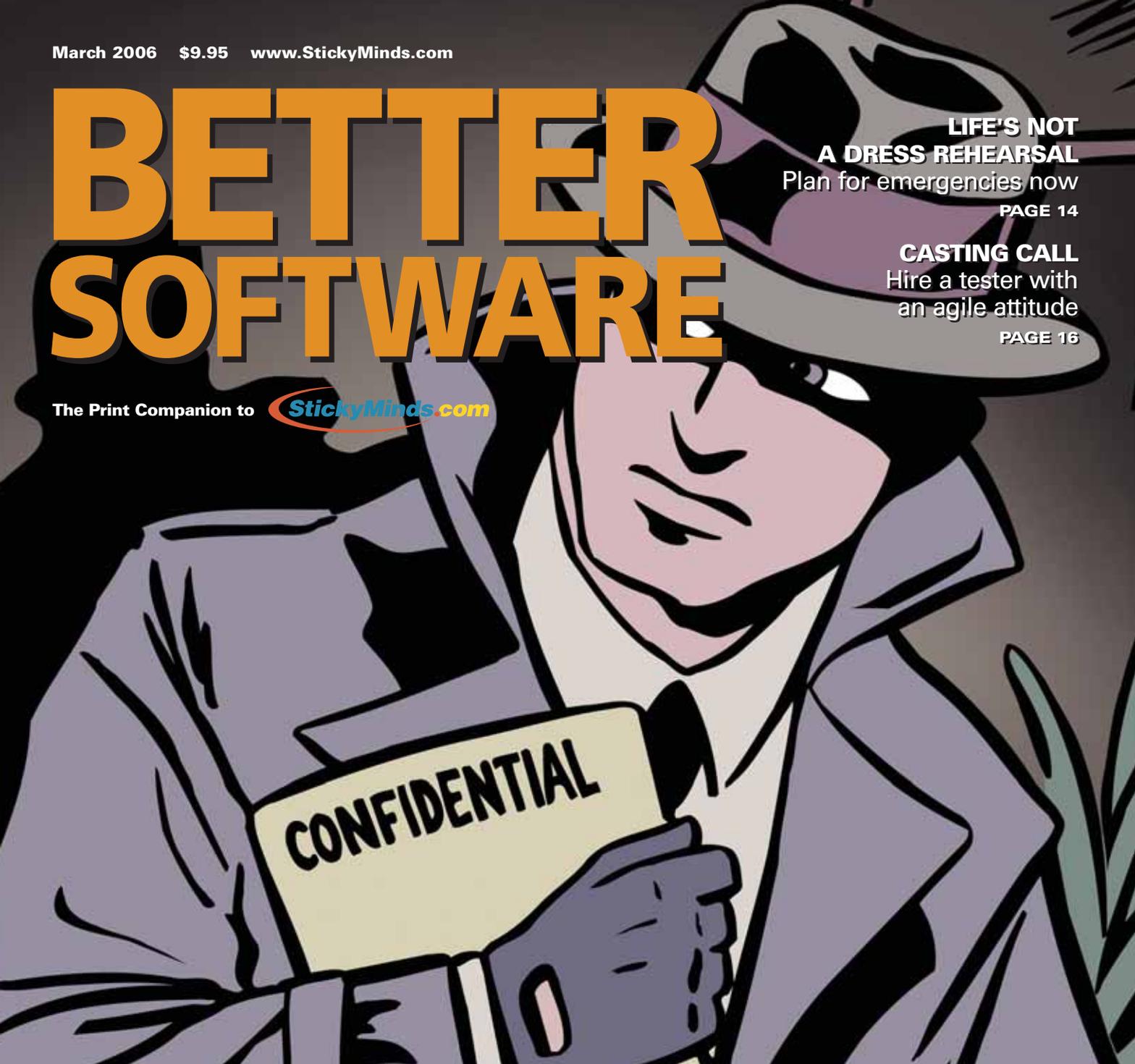


BETTER SOFTWARE

LIFE'S NOT A DRESS REHEARSAL
Plan for emergencies now
PAGE 14

CASTING CALL
Hire a tester with an agile attitude
PAGE 16

The Print Companion to  StickyMinds.com



Tester PI: Performance Investigator

PAGE 20



A New Strategy

by Matthew Heusser

On the airport shuttle ride home from a conference this year, I enjoyed a wonderful conversation about spaceships, technology, an overly controlling empire, and a loosely collected mix of oddballs who were crusading against that empire. Amazingly enough, we were not talking about *Star Wars*.

I found myself sitting next to an executive from a government agency, talking about the X-Prize—a \$10 million prize for the first private company to fly to an altitude of one hundred kilometers. It is essentially a bonus check for the first commercial flight into outer space.

In 2004, Scaled Composites, a tiny company based in the Mojave Desert, won the X-Prize (see the StickyNotes for more information). “The government is poison for the process,” the January issue of *INC Magazine* quoted Scaled Composites CEO Burt Rutan as saying. “The flying that America has done in the last twenty years is by far the most expensive way to get to space and the most dangerous.”

For years, we’d been hearing that government-funded space flight was expensive but super-safe. Rutan comes along and claims that not even that is true. What is going on?

So I asked my friend, the anonymous civil servant, and she did a very odd thing: She agreed with Rutan. She said that Scaled Composites is a very small shop that succeeds on the excellence of its employees. Rutan handpicks a very small group of world-class people.

At the federal level, they just can’t do that. Due to conflict-of-interest concerns, managers are not allowed to hire people they know personally. Even if a hiring manager knows for a fact that someone is excellent, *he cannot hire that person*. As a result, the government has to exclusively use résumés and interviews for hiring. To borrow a phrase, staffing a project is “like a box of chocolates,” with mixed results and a few surprises. Most federal, space-gazing employees are



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Matthew Heusser says *simplify, simplify, simplify*.

hard-working people, who could make much more money in the private sector. The few bad apples introduce all the risk.

My friend explained that the heavyweight process exists not because it is a great thing but because it is a mechanism for dealing with that box-of-chocolates problem. The methodology attempts to reduce variability by acting as a safety net for human error. Like the IBM methods of the 1970s, these methodologies make it very hard to make a bad decision. Then again, they make it hard to make *any* decision.

All that talk of processes got me thinking about our peers in the software process improvement movement and their desire for a “stable, repeatable, predictable” manner of software development. Something in those terms always struck me as dehumanizing, and suddenly I realized that *that* was the entire point: to do all development one specific way, turning software developers into an army of clones who behave in a predictable way. This enables management to know what will be done, when it will be done, and to what level of quality. In my experience, heavyweight process does tend to decrease the variability of

humans in software development—by bringing the bottom-level staffers up a bit and bringing the top-tier staffers down. This is quick and easy for management, but it does not necessarily mean that the software will be good or done quickly—just predictably. This approach attempts to treat people as widgets, and it tends to dehumanize them. This keeps staffers operating below their potential and hurts morale, further driving down productivity.

The alternative to methodology mania is to think for oneself, and there are several loosely collected groups that further this cause. The context-driven school of software testing (see the StickyNotes for more information) says that heavyweight methods *might* be right for you but must first be put through the filter of your context: your environment, your staff, and the problems you are trying to solve. The agile folks try to focus on individuals and interactions over processes and tools and value working software more than comprehensive documentation.

Most people would agree that process is good as a conceptual model—something to help explain to new employees “this is how we generally attack the problems of

(Continued on page 38)

The Last Word

(Continued from page 40)

software development.” The controversy is over the value of process as an *implementation* model. Strict adherence to an implementation model can lead to “legalism”—following the letter of the law, yet missing the entire point. Lack of adherence can lead to “false tolerance,” where we enable chaos by failing to enforce the law at all. Our challenge is to balance the two, to find a place where we respect both truth (we need to follow the process) and grace (. . . except when we don’t).

Now, I want to be very clear. I am not suggesting that we should have no process, only the simplest process description that can possibly work. Start out with a strategy, sure, but also hire smart people who know how to adapt the strategy when it isn’t working and who can handle the unexpected when the process, an abstraction, fails to cover every possible situation.

In the final battle scene in *Star Wars: A New Hope*, Obi-Wan Kenobi tells Luke to turn off his targeting computer

and instead “use the force.” When a project is failing back in the real world, we may do well to follow similar advice: Turn off email, shut down the project-tracking software, put the big methodology binder back on the shelf, stand up, turn around, and talk to actual people about what to do to bring the project back on track.

If that’s not process improvement, I don’t know what is. {end}

Matthew Heusser actively develops working software while writing and speaking on systems improvement. You can reach Matt by email at Matt.Heusser@gmail.com.

Sticky Notes

For more on the following topics, go to www.StickyMinds.com/bettersoftware

- More on the X-Prize
- Context-driven software testing
- Acknowledgements



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